

**Entrepreneurial Behaviour in Informal Economy: A Case  
Study on Street Food Entrepreneurship in Dhaka,  
Bangladesh**

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## Abstract

This research investigates entrepreneurial behaviour of street food sellers operating within the informal food industry in Dhaka, Bangladesh. The aim of the research is to explore whether street food entrepreneurs are behaving productively, unproductively or destructively. Thirteen semi-structured interviews are conducted with government officials, policymakers, academics, food adulteration researchers, nutritionists and NGO representatives, providing insight into the food adulteration phenomenon, with particular attention given to the sector selling adulterated food to children. The research uses grounded theory in analysing qualitative data and finds that food safety concerns are more alarming within the informal street food industry. Following this, data is collected from 250 questionnaires with street food retailers. Chi-square tests are conducted to investigate statistical relationships between variables identified at the qualitative phase of the research. Findings reveal that entrepreneurs from the informal street food industry are generally more unproductive in their behaviour. In addition, the research finds that a number of the factors that influence the behaviour of street food retailers from the informal food industry are not within their control. An ineffective regulatory framework, concerns with education, knowledge and awareness of safe food among entrepreneurs are the main factors influencing entrepreneurs to behave unproductively. This research did not find any evidence suggesting destructive entrepreneurial behaviour. Theoretical and practical implications of the research findings are discussed, and the research recommends the regulatory body to develop a simple transition process for entrepreneurs from the informal street food industry to become formal, irrespective of their size and age of business.

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## Acronyms and abbreviations

ANOVA	Analysis of Variance
BFSN	Bangladesh Food Safety Network
BSTI	Bangladesh Standard Testing Institute
CAB	Consumer Association of Bangladesh
CIRT	Centre for Innovation in Research and Teaching
CKD	Chronic Kidney Disease
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCQ	Forced Choice Questionnaire
FT	Facet Theory
GCMMF	Gujarat Cooperative Milk Marketing Federation
GDFL	Grameen Danone Foods Limited's
GDP	Gross Domestic Product
GOB	The Government of Bangladesh
GP	Good Practices
HFW	Hunger Free World
HSPH	The Harvard School of Public Health
MoHFW	Ministry of Health and Family Welfare
MFC	Multidimensional Forced Choice
NFSL	National Food Safety Laboratory
NGO	Non-Government Organisation
NPD	New Product Development
PFO	Pure Food Ordinance
PMEs	Profit Maximising Enterprises
PQD	Partial Questionnaire Design
QDA	Qualitative Data Analysis

QFA	Qualitative Facet Analysis
R&D	Research and Development
RDR	Repetitive Model Refinement
RQ	Research Questions
SBEs	Social Business Enterprises
SMEs	Small and Medium-sized Enterprises
SPSS	Statistical Package for Social Science
SQD	Split Questionnaire Design
SSF	Single-Stimulus Format
SHISUK	Shikkha Shastha Unnayan Karzakram (English: Education Health Development Programme)
UBINIG	Unnayan Bikalper Nitinirdharoni Gobeshona (English: Policy Research for Development Alternative)
UN	United Nations
UNFAO	The United Nations Food and Agriculture Organization
US	United States
VOIP	Voice Over Internet Protocols
WHO	The World Health Organization

## Chapter one: Introduction

### 1.1 The research

The street food phenomenon exists in some form or another in every major city globally, but in cities of the developing world street food is more dominant and contributes as a key component of the food system. Street food retailers stroll on the streets vending their goods from carts, while others retail from more permanent settings such as stalls. The street food industry is criticised for causing urban problems such as pollution, congestion and environmental health problems. As a result, street food is often alleged to have negative influences on its surroundings and frequently becomes the target of removal policies, except for within research which deliberates the benefits of street vending from the socio-economic perspective broadly (Tinker, 1997). This research attempts to explore the entrepreneurial behaviour of street food retailers in Dhaka, Bangladesh.

Retailers operating from the street function in public places; characteristically they are a highly visible element of the informal economy. Typically, street retailing encompasses the production and exchange of goods and services outside of legal frameworks (Cross, 2000) and contributes a significant proportion of the global informal economy, where many street retailers sell food as their main commodity (Cardoso et al., 2014; Tinker, 1997). Street food is sold across the world and is commonly associated with Asian cultures (Choudhury et al., 2011). The nature of street food in developing countries is mostly associated with accessing livelihood opportunity and affordability for low- and middle-income people. A report from the United Nations Food and Agricultural Organisation (UNFAO) (2014) suggests that more than 2.5 billion people eat street food every day; recent studies also address issues associated with street food retailing (Cardoso et al., 2014, for example). Although Bangladesh is experiencing a steady growth in the economy (The World Bank Group, 2020), a large proportion of the population finds it difficult to source food that meets their nutritional requirements (Khairuzzaman et al., 2014). Khairuzzaman et al. (2014) suggest that street food plays an important role in meeting the socio-economic requirements for urban consumers who

fall in the lower- and middle-income categories. For people in the low-income category, street food assures nutritional requirements at an affordable price.

Researchers on street food retailing have raised a range of concerns, and thought on food hygiene and safety dominate the extant literature (Von Holy and Makhoane, 2006). Research has been carried out on retailers' awareness and knowledge of food hygiene (Choudhury et al., 2011) and has found these to be inadequate. In relation to concerns about food safety with attention to street food in Bangladesh, Huda et al. (2009) report that the traditional sweets that children and adults consume regularly are not what they seem. A study from February 2005 finds that 100 per cent of examined food samples are adulterated. In most cases, sweetmeat producers use toxic colours instead of food colours, which may cause diseases like cancer and kidney damage if regularly ingested (Huda et al., 2009).

It is evident that the current regulations, media coverage and other approaches against food adulteration have not been successful in bringing its rate down. To this end, investigating the entrepreneurial behaviour behind such practices among street food retailers in Dhaka became one of the major motivations of this research. Furthermore, in considering reports of institutional failure in addressing these concerns, this research attempts to explore the impact of institutions (formal and informal) and components of institutional pillars (Scott, 2014) on food producers and retailers operating within the informal street food industry in Dhaka, Bangladesh. The next section outlines the motivations behind the study and the journey this research project takes.

## **1.2 The journey**

Reviewing the food adulteration phenomenon evidenced in the food industry of Bangladesh, where children are considered vulnerable to exposure to this adulterated food (Huda et al., 2009), this research begins by investigating food adulteration concerns in food sales to children in Bangladesh. The research intends to investigate why adulteration practices are common in the food sector

despite the presence of formal or regulative institutions, as well as investigating ethical and entrepreneurial motivations of producers and retailers of child food.

With these intentions the research commences phase one (qualitative), using semi-structured interviews with current researchers, nutritionists, academics, government officials and non-governmental organisations (NGOs), providing an overview of the food adulteration practices in Bangladesh. The phase one findings suggest that concerns are unfounded in the formal food industry, and that it is the informal industry that is mostly undertaking adulteration practices, with references made to the informal industry selling street food to children. Therefore, the research addresses entrepreneurial behaviour among the street food retailers of Dhaka, Bangladesh.

Phase two (quantitative) utilises questionnaire surveys with street food vendors selling commodities to children in Dhaka, Bangladesh and tests features of the informal street food industry as indicated by phase one.

The investigative journey of this research reviews multiple key components associated with the field of entrepreneurship and the street food industry of Dhaka, Bangladesh. The next section introduces the key literary components briefly, with more detailed discussions included in the literature review chapter.

## **1.3 Key literary components this research investigates**

### **1.3.1 Entrepreneurship**

Entrepreneurship is defined by Shane (2003, pp. 4) as ‘the activity involving evaluation, exploitation of opportunities and their discovery in order to bring forward new commodities and services in the market’. Additionally, entrepreneurship includes the different ways of managing and organising processes, raw materials and the market with the help of previously unknown efforts. The broad spectrum of the entrepreneurship definition accommodates debates and discussions on a range of related concepts and issues, such as exploitation of opportunities. As Mitra (2020) suggests, actions and behaviour of entrepreneurs are their motivation and identification of opportunities for change.

Mitra further added that regardless of the state of the economy, entrepreneurs thrive when they can stimulate change (2020).

Entrepreneurship literature on identifying opportunities engages in the debate of market and entrepreneurial opportunities. For example, Shane and Venkataraman (2000) refer to entrepreneurial opportunities as the objective of introducing and selling new products or services at greater prices than their cost of production, whereas market opportunities are referred to as improvement or replication of an existing product by Mitra (2020). This research attempts to distinguish between the form of opportunities demonstrated by street food vendors operating in the streets of Dhaka. Alongside identification and exploitation of opportunities, entrepreneurship studies emphasise entrepreneurial behaviours equally, which is within the scope of investigation for this research. The next section introduces how different conceptions of opportunity lead to different entrepreneurial behaviours.

### 1.3.2 Productive, unproductive and destructive entrepreneurship

Analysing the concept of entrepreneurship and entrepreneurial behaviours, Baumol (1996) suggests entrepreneurship can be either productive, unproductive or destructive. In defining these concepts, Baumol (1996) and recently Lucas and Fuller (2017) say that productive entrepreneurship contributes to societal well-being, which includes the introduction of new products or new (production) processes. Unproductive entrepreneurship is set to obtaining transfers, classically through rent-seeking, and entrepreneurship is considered destructive when resources are invested to capture rents or commandeer wealth. For instance, trade of illegal commodities is categorised as criminal or destructive entrepreneurship (William, 2015; Smith and McElwee, 2013).

Gohmann et al.'s (2016) study further investigates entrepreneurial behaviour, adding that the type of entrepreneurship is significantly dependent on the institutional framework of the government where the entrepreneur operates. Government incentives can influence the decision-making process of entrepreneurs and how they would be behaving. The different types of entrepreneurship

can be seen as functions of both the institutions in place, as in formal economies, and their absence, as in informal economies. Reviewing the deliberations on entrepreneurial behaviour, this research attempts to investigate the behaviour of street food vendors in Dhaka, Bangladesh and how institutions (formal and informal) shape their judgements. The discussion on government interventions on entrepreneurial behaviour led this research to the debate of formal and informal economy where an entrepreneur operates.

### 1.3.3 Formal vs informal economy and Bangladesh

Explaining the concept of formal economy, Webb et al. (2009) state that businesspeople exploiting legitimate and legal incomes to produce legitimate and legal commodities and/or services operate in the formal economy. Entrepreneurs in the formal economy generate new combinations of knowledge as the foundation for recognising opportunities and attempts to abide by established formal and informal institutions (Zimmerman and Zeitz, 2002; Webb et al., 2009).

Webb et al. (2009) define the informal economy as ‘the amalgamation of illegality with legitimacy’. The research suggests that the informal economy encompasses activities to exploit and recognise opportunities outside formal but within informal institutional boundaries, where an entrepreneur from the informal economy may use illegal yet legitimate resources (e.g. undocumented workers) to produce legal and legitimate products or services (e.g. farm output). However, Williams (2015) elucidates the concept of informal economy more specifically, stating entrepreneurs from the informal economy are those who are involved in monetary transactions that are not declared (some or full) for tax and/or labour law purposes, when they should be declared, but these entrepreneurs are legal in all other aspects (e.g. registration or trading legal products). Williams (2015) specifies that entrepreneurs trading illegal commodities and services are not entrepreneurs representing the informal economy; rather they are part of the criminal economy (i.e. destructive entrepreneurship) (Smith and McElwee, 2013). For instance, an example of informal economy could be an entrepreneur without a legitimate licence operating in the streets of Dhaka, sourcing legitimate raw

materials and retailing legal foods to the common people. This research attempts to distinguish the nature of economy the street food entrepreneurs represent and their perspectives.

### 1.3.3.1 Informal economy of Bangladesh

This research investigates vendors offering street food to children in Dhaka, Bangladesh. In recognising the industry these street food vendors represent, this research reviews the four sectors the industries in Bangladesh are classified into (Chowdhury, 2005): a) Large and medium industries: Comprising of manufacturing units; b) Small industries: Manufacturing, processing or service activities with fixed investment limited to Taka three crore or 30 million; c) Cottage industries: Includes industrial units engaged in either manufacturing or services and are generally run by family members with a total investment of Taka 0.5 million; and d) The informal sector: Businesses employing fewer than 10 employees. Street food vendors in Bangladesh are representative of this informal sector.

The urban pull factor plays a significant role in the migration process of the lower- and middle-income population from rural Bangladesh to its larger cities such as Dhaka. Due to lack of education, experience, skills and training, rural migrants experience difficulty in gaining employment in the formal sector. This has had a significant effect on the growth of the informal sector within the country (Chowdhury, 2005). Chowdhury's (2005) study finds that over 80 per cent of the total labour force in Bangladesh represents the informal sector. More specifically, 60 per cent of all employment in Dhaka is in the informal sector, whereas in other parts of the country it consists of 90 per cent or more people working in the informal sector. Chowdhury (2005) confirms that the informal sector in Bangladesh dominates the labour market, where street food entrepreneurs are inclusive to this economy. The next section sheds light on institutional theory and associated institutional pillars having an impact on street food retailers/vendors in Dhaka, Bangladesh.

### 1.3.4 Institutional theory

Institutional theory examines the process of establishing an authoritative guideline for social interactions and behaviour through the inclusion of schemas, rules, norms and routines (Scott, 2004). Scott (2008) and North (2005) state that strategies and operations of a firm are shaped by the institutional environments in which they are embedded. North (2005) elaborates that institutions define the rules of the game and regulate what are acceptable, appropriate behaviours for firms. Legitimacy is an indicator of social fitness and can only be obtained when firms align with these rules of the game and adopt socially desirable behaviours (Scott, 2008; Grewal and Dharwadkar, 2002; DiMaggio and Powell, 1983). In pursuing legitimacy, firms may encounter regulative, normative and cultural-cognitive institutional pressures, or the three pillars, as Scott (2014) defines.

Kostova (1997, p. 180) states the components of the regulative pillar are the country's institutional characteristics, as those 'existing laws and rules in a particular national environment that promote certain types of behaviours and restrict others'. Furthermore, in defining the regulative pillar, Scott (2014, p. 59) and Veciana and Urbano (2008) claim the pillar is related to 'the capacity to establish rules, inspect others' conformity to them, and, as necessary, manipulate sanctions – rewards or punishments – to influence future behaviour'.

To define normative pillars, Wu and Li (2019) state the (normative) system comprises of the uncodified social norms and value systems that are often called 'culture'. According to Scott (2014), the normative pillar denotes shared norms, values, social beliefs and expectations that shape an individual's or firm's behaviour, and the components of normative pillars are grounded on the logic of 'appropriateness' or cultural acceptance, rather than the logic of 'instrumentality', which is the core of the regulative pillar.

Finally, in describing the cultural-cognitive pillar, Scott (2014, p. 67) describes the pillar as relating to the 'collection of internalized symbolic representations of the world' that 'mediate between the external world of stimuli and the response of the individual organism'.

This research carefully considers the components of the institutional pillars and examines their impact on the informal street food industry of Dhaka, Bangladesh. The components of the institutional pillars are fundamental in designing the research questions investigating the entrepreneurial behaviour of street food retailers of Dhaka, Bangladesh. The next section introduces the street food industry briefly.

### 1.3.5 Street food industry of Bangladesh and some concerns

Economists in Bangladesh claim the country is going through rapid economic growth and development, and that the small vendors and entrepreneurs can make a bigger impact in the growth of the economy (Dey, 2019). Unfortunately, Bangladesh does not have a formal infrastructural process or mechanism to recognise these small vendors or entrepreneurs. Additionally, food safety concerns are reported regarding this unregulated informal industry, representing food vendors operating from the streets mostly (Hossain et al., 2008; Huda et al., 2009; Mridha, 2011; Dey, 2019). Research suggests that the inadequate legal safeguard does not ensure food safety among the entrepreneurs in the informal sector (Dey, 2019).

The informal food industry – and street food in particular – plays a significant role beside its formal counterparts in feeding Bangladesh's population. A report published by the Bangladesh Tourism Board in 2017 claims that more than 6 million people eat street food in Dhaka every day, where a substantial proportion of these people are children and mostly school-going (Dey, 2019). The study also emphasises concerns about safe food within street food retailing in Bangladesh. Furthermore, a study conducted by the National Food Safety Laboratory (NFSL) on food samples collected from street food entrepreneurs operating outside 46 schools in Dhaka found the presence of harmful substances such as artificial colours, coliform, East, Cesa and Microxin (Dey, 2019).

In-depth discussion of the street food industry of Bangladesh and associated concerns is paramount to the debate of chapter three of this thesis, where attempts are made to establish the context for this research. However, the next section here introduces the context of Dhaka, Bangladesh briefly.

## 1.4 The case study: Dhaka, Bangladesh

Bangladesh is a country in South Asia with a large population of 161 million considering the country's size of 147,570 km<sup>2</sup> (The World Bank Group, 2017). According to the World Bank's international poverty line indicator of \$1.90 per person per day, approximately 18 per cent of Bangladesh's population falls below that poverty line. The country's gross domestic product (GDP) is 6.6 per cent (The World Bank Group, 2017).

The population of Bangladesh is not widely dispersed throughout the country; rather its major cities are very condensed. Within the last 10 years, the number of people living in Dhaka (the country's capital) almost doubled (Khairuzzaman et al., 2014). A report published by Bangladesh Bureau of Statistics (BBS) in 2013 claims the total population of Dhaka in the 2011 census was 8,906,039. More recent reports from World Meters (2020) and World Population Review (2020) show (Table 1.1) that current population sizes in the major cities of Bangladesh increased by significant numbers and confirms Dhaka as the most populated city of the country.

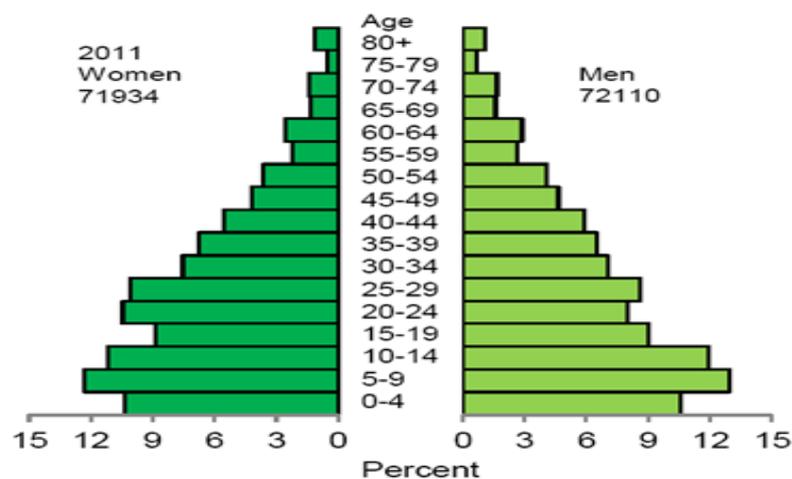
Table 1.1: Most populated cities in Bangladesh

Rank and City name	Population
1. Dhaka	10,356,500
2. Chittagong	3,920,222
3. Khulna	1,342,339
4. Rajshahi	700,133
5. Comilla	389,411
Source: World Meters (2020) and World Population Review (2020)	

Some of the main socio-economic problems contributed by this large population in Bangladesh include: rates of migration to the main cities within the country, increased stress on employment sectors, housing demands, overcrowding, and increased demand for affordable food (Farid et al., 2011). The rapid growth in population has resulted in a demand-supply imbalance of food and an increase in the demand for relatively inexpensive foods is evident (Khairuzzaman et al., 2014). Many urban residents spend most of the day outside and have limited money and time to spend on food (Rahman and Alam, 2015), contributing to the transformation of street food entrepreneurship as an important business (Khairuzzaman et al., 2014).

Based on the latest census (2011), one-third of the population in Bangladesh is aged less than 15 years old, which is the largest age-group category of the country (Bangladesh Bureau of Statistics, 2019). Figure 1.1 shows the distribution of the total population against their age groups found in the 2011 census (Bangladesh Bureau of Statistics, 2019). The World Bank supports this data and reports that 31.62 per cent of the Bangladesh population falls into the 0–14 age group (World Bank Group, 2017).

Figure 1.1: Population distribution against Age group



Source: Bangladesh Bureau of Statistics (2019)

Considering the substantial influence of street food on the urban lives of Bangladesh (Farid et al., 2011; Dey, 2019) and increasing demand (Chowdhury, 2005; Khairuzzaman et al., 2014; Rahman and Alam, 2015), the street food industry has become a key contributor to the growth of the country's economy (Chowdhury, 2005; Khairuzzaman et al., 2014). A significant number of street food consumers are children (Dey, 2019) and concerns are reported regarding the consumption of unregulated street food (Hossain et al., 2008; Huda et al., 2009; Mridha, 2011; Dey, 2019). Thus, this research attempts to investigate street food entrepreneurship in Dhaka, Bangladesh with particular attention given to those retailers who sell street food to children. The other focus of this study is on the role of institutions (formal and informal) in the street food industry of Bangladesh; the next section briefly introduces this concept.

### 1.4.1 Impact of institution on food producers and retailers

First, to initiate the discussion on role of institutions, it is important to note that the government of Bangladesh in 2011 established the operation of a mobile court to monitor street food entrepreneurs in Dhaka; the intervention was made popular through the media. Secondly, the government supported a number of civil society organisations, which have emerged in recent years in Bangladesh, to promote safe food with particular attention to street food (Khairuzzaman et al., 2014).

Alongside government interventions, non-governmental organisations (NGOs) are actively operating in Bangladesh to bring the crisis with food adulteration down. In its development and execution, this research has taken assistance from number of public institutions and NGOs, notably at phase one (qualitative) of this research. Some of the partner NGOs are Hunger Free World (HFW), the Consumer Association of Bangladesh (CAB), B-Safe, Unnayan Bikalper Nitinirdharoni Gobeshona (UBINIG, translated as Policy Research for Development Alternative) and Shikkha Shastha Unnayan Karzakram (SHISUK, translated as Education Health Development Programme). The government and partnering NGOs have taken number of pivotal steps to influence the food adulteration concerns, especially associates within the informal food sector of Bangladesh.

## 1.5 Recent developments

### 1.5.1 Awareness programmes

Dey (2004) states that, according to economists in Bangladesh, the country is going through a phase of economic development and small vendors and entrepreneurs can make a significant impact in this growing economy. However, there is no system to recognise these small vendors and the study states the government reserves control of safe food trading in commercial areas. In this way the government will be able to monitor food safety, raise awareness and generate revenue through taxation. It is evident that the mobile court operation is not having a positive impact on food safety (Dey, 2004).

### 1.5.2 Role of government and NGOs

Alongside establishing the operation of mobile court to monitor food entrepreneurs of Dhaka in 2011, the Bangladesh government supports a number of civil society organisations which have emerged in recent years to promote food safety with particular attention to street foods. For instance, VOCTA (Bangla for 'consumer'), the Consumers Association of Bangladesh (CAB), have conducted street food surveys and organised awareness programmes, seminars and campaigns through rallies, workshops and policy advocacy. Both television and print media have been involved in increasing public awareness of safe street foods (Khairuzzaman et al., 2014).

In the inauguration ceremony of the 2019 National Safe Food Day, Sheikh Hasina, the Prime Minister of Bangladesh, emphasised a need for the general public to be more aware of food adulteration. She stated, 'if the people are more aware, the unethical entrepreneurs will not be able to cheat the general public' (*The Independent*, 2019; *Prothom Alo*, 2019).

However, the government acknowledges the shortage of workforce or manpower in the authority to deal with food adulteration and carefully consider the concern and confirms that effective steps will be taken to mitigate this problem (*The Independent*, 2019). Furthermore, the report also recognises the lack of food storage capacity in the country, which may have led entrepreneurs to use chemicals to preserve food for longer (*The Independent*, 2019).

The investigative nature of this thesis identifies those areas not adequately addressed or explored by the existing research in the field of the Bangladesh street food industry. Identification of these unexplored areas plays a persuasive role in setting the research objectives for this thesis. Gaps found in the existing research are presented in the next section.

## 1.6 Key issues this research attempts to address

### 1.6.1 Inadequate academic research focusing on Bangladesh's street food industry

Investigating previous research conducted on the food industry in Bangladesh, there is a paucity of evidence from research on street food entrepreneurship found in Bangladesh. For instance, Farid et al. (2011), Dey (2019), Hossain et al. (2008), Huda et al. (2009) and Mridha's (2011) work influences the research interest development for this study and are the major academic contributors of the field. While these studies address the concern of adulteration in street food, they do not consider the entrepreneurial behaviours influencing the phenomenon. Thus, there is a need for an investigation into the street food industry in Dhaka, Bangladesh from an entrepreneurial behaviour perspective.

### 1.6.2 Lack of statistical data on the street food industry

Reviewing academic and non-academic papers and publications relevant to the Bangladesh food industry, no data focuses on the industry selling street food to children and entrepreneurs operating within the informal sector. Reports and research published by the Bangladesh Bureau of Statistics (2019), the Ministry of Food (2018) and Chowdhury (2005) recognise the existence of the informal street food industry but fail to provide constructive information or accurate data on the number and contribution these informal vendors make. Similarly, reports from World Bank Group (2017) and the Food and Agriculture Organization of the United Nations (2014) gives affirmation of the street food industry of Bangladesh, alongside what steps they are taking to mitigate food adulteration instances. However, these reports lack the statistical information to draw informed conclusions. Notwithstanding, a limited number of publications with statistical information on the informal food industry are available and are represented in the chapter three of this thesis.

### 1.6.3 Identifying best practices in the street food industry

Television and printed media have successfully communicated cases of food adulteration in recent years. They are playing an active role in investigating and identifying entrepreneurs and practices of food adulteration. Contribution from national newspapers such as *The Independent* (2019), *Prothom Alo* (2019) and *The Daily Star* (2012), alongside research carried out by Dey (2019) and KK (2019) are found to be influential. However, alongside identifying cases of food adulteration, no one is found to have been playing an active role in identifying good practices in the food industry.

It is important to identify best and innovative practices that can be used in development of the framework to encourage ethical and innovative practices among entrepreneurs operating within the street food industry in Bangladesh and other emerging economies. Hence, this research takes special interest in identifying such examples.

### 1.6.4 Why entrepreneurs are not productive

Finally, all available academic and non-academic publications and reports concerning food adulteration cases in Bangladesh focus on unproductive entrepreneurship practices and the adverse impacts of food adulteration on the population. In addition, existing research (Farid et al., 2011; Dey, 2019; Hossain et al., 2008; Huda et al., 2009; Mridha, 2011) has been carried out on the topic of food adulteration but has not addressed why entrepreneurs are unproductive.

As a result, this research attempts to identify factors as to why street food entrepreneurs may well be productive, unproductive or destructive. These findings could be found to be beneficial to government authorities, regulatory bodies and entrepreneurs in designing mechanisms to deal with food adulteration in the industry selling street food to children and the overall food industry of Bangladesh.

Based on the above identified key issues, this research recognises areas of unanswered research problems investigating entrepreneurial behaviour in the informal economy of Bangladesh. Furthermore, evidence shows a lack of attention given to the street food industry of Dhaka,

Bangladesh, specifically to those selling street food to children. Finally, no evidence is found attempting to showcase good practices from the overall food industry, especially considering the informal street food industry.

## 1.7 The research aims, objectives and research questions

Discussions in the earlier sections identify gaps in three major areas of the street food industry in Dhaka, Bangladesh: 1) Entrepreneurial behaviour of the street food retailers in general, although this research intends to investigate street food retailers targeting children; 2) The impact of institutions (formal and informal) on the behaviour of these street food retailers; and 3) Evidence of a lack of good practice.

Considering these gaps, this research aims to investigate and explore entrepreneurial behaviour of street food retailers in Dhaka, Bangladesh and how their behaviour is influenced by institutions. To achieve this aim, the following objectives have been set, which will enable this study to address the associated research questions. Similarly, answering the research questions would enable this study to achieve its objectives.

*1. To explore productive entrepreneurship through ethical and innovative practices among entrepreneurs selling street food to children in Bangladesh.*

Existing publications on food retailing (including street food) in Bangladesh only emphasise concerns associated with the industry. Efforts are not made to identify productive entrepreneurial behaviour of the street food retailers who are operating productively. Hence, the research attempts to explore evidence of such behaviour.

*2. To explore factors which act as barriers for productive entrepreneurship practices in the developing economy context of Bangladesh.*

As existing publications and reports inform on areas of concern and ignore the factors motivating such behaviour, this research attempts to explore the factors influencing the

behaviour. Attention is also given to distinguish between unproductive and destructive behaviour.

Associated research question (RQ) for objective one and two is the following:

**RQ1:** *What are the cultural-cognitive components influencing entrepreneurial behaviour (productive, unproductive and destructive) in the street food industry in Bangladesh?*

3. *To critically review the role of institutions in promoting or impeding innovative and ethical practices among the entrepreneurs selling street food to children in Bangladesh.*

The Bangladesh case study does not report that the formal or regulative institutions are successful in achieving their intended intentions. Hence, this research attempts to review what role the informal and formal institutions are having on the street food retailers in demonstrating productive, unproductive or destructive behaviour.

Associated research question (RQ) for objective three is the following:

**RQ2:** *How do the regulative institutions have an impact on the entrepreneurs from the street food industry in Bangladesh?*

4. *To design a framework that encourages ethical and innovative practices among the entrepreneurs selling street food to children in Bangladesh.*

Gaps identified through the discussions suggest no available evidence encouraging productive entrepreneurial behaviour in the food industry of Bangladesh. Therefore, this research attempts to review and propose a conceptual framework which can potentially encourage ethical and innovative practices among the street food retailers of Bangladesh.

Associated research question (RQ) for objective four is the following:

**RQ3:** *How do normative institutions encourage or impede ethical practices among the entrepreneurs of the street food industry in Bangladesh?*

In order to achieve the objectives and answer the research questions, this study is guided by an appropriate research methodology. The next section briefly describes the adopted methodology of this thesis.

## **1.8 Brief description of research methodology**

Through undertaking both positivist and interpretive approaches, this research adopts a pragmatic philosophy to address the research objectives and research questions. A review of Bhaskar's critical realism and in-depth discussion of Pierce's pragmatism are fundamental in arriving at the decision to adopt a pragmatic philosophy for this study. In a pragmatic stance, this research adopts a mixed method research design, where a qualitative phase (one) is followed by quantitative phase (two) in a sequential exploratory research design (Saunders et al., 2019), with the intention to generate knowledge of food adulteration instances in Bangladesh by interviewing (phase one) people overseeing the food industry and to test the factors identified through the interviews with street food vendors using a questionnaire (phase two).

The qualitative phase of this research uses semi-structured interviews in a remote arrangement to generate in-depth understanding of the street food businesses in Dhaka, Bangladesh and the accompanying phenomenon of food adulteration. The methodology chapter (chapter four) explains the context and rationale for adopting a remote arrangement. Nevertheless, academics, nutritionists, current researchers, government officials (e.g. individuals from the Ministry of Food and disaster management, and food safety advisers) and NGOs participated in semi-structured interviews. In addition, two groups of customers took part in focus group interviews. This research uses the qualitative phase as a pilot study feeding into the quantitative phase of the research.

NVivo is used for data management and supporting the qualitative analysis, which follows Strauss and Corbin's (1990) grounded theory protocols. Through adoption of grounded theory procedures, this research manages the emerging themes while analysing qualitative data. Coding is used in three orders, which are explained in the methodology chapter. The second order coding and associated

theoretical underpinnings enable this research to develop the questionnaire used in phase two. The questionnaire enables this research to test the findings from phase one with the street food retailers at phase two.

At phase two, this research adopts a quantitative approach, where street food retailers are the respondents of the questionnaire. This research uses an interview survey questionnaire technique via employing data collectors capturing the quantitative data from the field. Adoption of this technique enables the research to capture large numbers of data accurately in a relatively short time frame (Babbie, 2016; Saunders et al., 2019; Denscombe, 2014). SPSS software is used as a tool to manage and aid quantitative data analysis in this study. Finally, the quantitative phase uses chi-square tests to establish relationships between variables associated with the research objectives.

The penultimate section of this chapter provides a chapter summary followed by the outline of this research.

## **1.9 Chapter summary**

Bangladesh has a large population and a developing economy which results in several socio-economic challenges. Urban migration contributing to the increased demand of affordable food from the informal street food industry is one of the aspects this research considers. The informal nature of the street food industry contributes towards food adulteration cases.

A population of 6 million people retailing street food within Dhaka provides strong evidence of its popularity (Dey, 2019). However, the quality and safety of street food items are questionable. Intervention of formal institutions have not been successful. Alongside these concerns, how street food is making food accessible and affordable for people, particularly from lower socio-economic groups, including children, is cause for concern.

As street food retailers represent the informal economy of the country, it can also be claimed that street food entrepreneurs may lack education, knowledge and training. Moreover, entrepreneurs

unable to secure a formal employment are attracted by the 'easy-to-enter' trade and perception of a lucrative street food retailing industry.

This research intends to examine the problem from an entrepreneurial behaviour perspective in an informal economy context using a pragmatic research philosophy, using multiple stages of examining progress.

The ultimate section of the chapter outlines the structure of this research.

### **1.10 Outline of the thesis**

This thesis is divided into eight chapters. The first chapter introduces the topic, with discussions on the background of the research, the problem this research intends to investigate, research aims and objectives, and research questions. In addition, a brief explanation of the methodological process is included to demonstrate the journey the research has undertaken in achieving the objectives.

Chapter two presents a literature review on entrepreneurship, a debate of productive versus unproductive and destructive entrepreneurship, and a discussion of formal and informal economy and institutional theory and food adulteration, including in the context of an emerging economy. The chapter is structured in a funnel approach, where broader concepts are used in developing understanding and narrowed down to specific areas the scope of the research objectives. The reviewed literature guides this research in generating research questions to support the research objectives.

Chapter three introduces food adulteration concerns in the context of Bangladesh. It enables development of the concept map and the conceptual framework for this study.

Chapter four discusses research methodologies the research employs. Justification for the chosen methodologies are provided. Procedures of data collection and analysis are also discussed within the chapter. The development of research instruments, sampling procedures and a pilot study are also presented.

Phase one of this study adopts a qualitative approach and chapter five focuses on describing and analysing qualitative findings, using first, second and third order coding. NVivo software is used as a tool to manage and support the presentation of qualitative findings. Second order coding is used on the 71 key findings generated by the first order coding. This process enables the questionnaire to be developed to collect data in the quantitative phase of the research. The chapter is structured against the emerging themes guided by the Strauss and Corbin's grounded theory protocols. The chapter concludes with a table demonstrating how phase one (qualitative) key findings guide the development of the questionnaire for phase two (quantitative).

Phase two of this study uses a quantitative approach and data are captured using a questionnaire. Chapter six describes and analyses the quantitative findings. The questionnaire survey is conducted with the street food retailers operating in the informal industry selling street food to children. Statistical Package for Social Science (SPSS) is used as a tool to manage and support the presentation and analysis of the quantitative data. To analyse quantitative findings, chi-square tests are conducted to identify statistical relationships between variables of the objectives.

Chapter seven discusses the analysis against published literature. The discussions on findings fail to establish any significant evidence claiming the street food retailers are destructive. The chapter concludes with a discussion on the conceptual framework and proposes potential amendments.

Chapter eight reviews the previous chapters and draws conclusions and recommendations based on the research findings. The research is concluded against its objectives, identifying the research limitations and discussing the contribution it makes suggestions for further research.

## **Chapter two: Literature review**

### **Introduction**

This chapter reviews the relevant literature, which serves as a framework for the study. The appropriate literature is presented in broad topics of entrepreneurship, food adulteration, institutional theories, business/corporate ethics and street food. The reviewed literature and discussion on context (chapter three) guides the research in generating research questions (RQs). Subsequently, the RQs assist the research in achieving the objectives through analysing and discussing primary data, and drawing conclusions of the study.

This chapter consists of five major sections. First, the chapter investigates comparative history of the food adulteration literature, with the consideration of developed and developing economies. Second, formal and informal economy is discussed with reference made to the informal economy of Bangladesh. Third, the chapter discusses the concept of entrepreneurship. Productive, unproductive and destructive entrepreneurial behaviour and ethics are discussed. Special attention is given to the relation of entrepreneurship with innovation. Fourth, the chapter looks at literature relating to institutional theories. Finally, entrepreneurship and innovation in the food industry are reviewed.

### **2.1 Food adulteration**

Phillips and French (1998) state that historically, in developed and developing countries, food adulteration and protecting consumers are issues. During the early 19th century, the UK faced similar problems, and although the development of the consumer movement gradually led to the passing of consumer laws to safeguard consumers, legislation was not successful in eliminating problems of food adulteration. They note that even during the late 1930s this continued to plague the UK.

Solaiman and Ali (2014) postulates that public health and food safety have become a global concern in recent times, particularly within the last decade. The continuous concern with food contamination and adulteration globally forced the World Health Organization (WHO) to recognise 'foodborne diseases as global public health challenge' (Solaiman and Ali, 2014). Similarly, the United Nations (UN) added that this concern is significantly evident within developing countries. Furthermore, these governmental organisations identified Bangladesh and other south Asian countries as particularly concerning.

Sumar and Ismail (1995) claim that in developing countries, such as Bangladesh, the extent of the food adulteration problem is greater. Their study finds that the adulteration process involves debasing the foodstuff in some way so as to produce a cheaper imitation product, which differs from that specified or implied. Four methods in which food may be adulterated have been identified (Kamala, 1974):

- Method 1: Mixing of inferior quality material with a superior one (e.g. mixing used tea leaves with fresh tea leaves);
- Method 2: Addition of extraneous matter (e.g. water to milk or sand to food grains);
- Method 3: Extraction of valuable ingredients (e.g. abstracting fat from milk or oils from spices); and
- Method 4: Use of prohibited dyes and preservatives (e.g. colouring spices).

Although Kamala (1974) confirms the different ways in which food is adulterated in developing countries, there is no specific evidence that any one of the methods is more popular than another. Furthermore, no evidence is found that any of the methods is more frequently used in the food sector targeting children.

Similar to Kamala (1974), Sumar and Ismail (1995) and Solaiman and Ali (2014) suggest three main ways in which food has been adulterated in Bangladesh. First, unethical entrepreneurs

use various harmful chemicals, such as formalin, pesticides and toxic colours, to make the food attractive and keep foods fresh. Second, they store, sell and/or serve consumers rotten or poisonous foods in unhygienic surroundings. The third issue concerns the food habits of people in Bangladesh, who are fond of spices. Taking advantage of this fondness, entrepreneurs and manufacturers add toxic substances with different spices and edible oils.

This research identifies particular method(s) practised in Bangladesh to adulterate food sold to children by street food retailers. As this study specifically investigates issues with food adulteration in Bangladesh, the following section discusses the literature on food adulteration concerns in Bangladesh.

## **2.2 Food adulteration in Bangladesh: General status**

Food adulteration has become a common phenomenon in Bangladesh and considered as a national problem, because food adulterated with toxic chemicals influences threats to public health (Ahmed, 2012). Food adulteration can also threaten life, especially that of vulnerable people such as children and the elderly (Ahmed, 2012; Solaiman and Ali, 2014). Traces of food adulteration can be found in a range of food products from fruits and vegetables to meat, fish and processed food. Even baby food items and milk products are found to be contaminated/adulterated with chemical substances such as formalin, artificial sweeteners, carbide, DDT, urea and textile colour (Ahmed, 2012). Considering the overall situation, food adulteration is also named a 'silent killer' in Bangladesh (Ahmed, 2012; Anam, 2012; Solaiman and Ali, 2014; *Daily Star*, 2012).

Records of other hazardous chemical substances have also been reported by Hossain et al. (2008). For instance, Hossain et al. report that, in Bangladesh, harmful chemicals such as sodium cyclamate, calcium carbide, urea (a nitrogen-release fertiliser), cyanide and formalin are occasionally used in foods and foodstuffs. The main purposes behind the use of these hazardous chemicals are reported to be to ripen green tropical fruits or to colour

vegetables. Furthermore, it is also reported that textile dyes are used to prepare popular sweetmeats, beverages, soft drinks and confectionaries and to preserve fruits, fish and milk to achieve the comparative advantage through maintaining higher profits while lowering costs.

A study by Solaiman and Ali (2014) finds that food adulteration cases are evident almost everywhere in Bangladesh. For instance, food manufacturers, institutional cafeterias, restaurants and fast food retailers are involved in adulteration in some form or another. The researchers further emphasise concerns regarding home-cooked meals, as they are found to be contaminated largely through pesticide-laden ingredients, adulterated oil and spices and other poor-quality raw materials.

Hossain's (2011) study observes and interviews sellers, handlers or producers in rural Bangladesh and finds that the majority uses harmful chemicals. The reasons why these sellers, handlers or producers use hazardous chemicals include extending the product's shelf-life, making the product more lucrative, meeting consumer demand and substituting unavailable natural raw materials, as natural raw materials are not available throughout the year and because adulterated raw materials are less expensive than natural goods. Sellers, handlers or producers avoid the use of permitted and health-friendly chemicals and food colours to increase the attractiveness and longevity of foods due to their high price (Hossain, 2011).

Hossain's (2011) study comprises interviews with 110 consumers, 25 with food sellers/producers, seven with doctors and seven with pharmacists. The study finds that most of the survey population are involved in food adulteration practices. Only 25 food handlers (sellers/producers) are within the scope of Hossain's research; this raises concerns about reliability of the claims made. Additionally, the research does not strongly report on the influence or purpose behind the food handlers being involved in food adulteration practices.

Hossain's (2011) study applies multiple research approaches (empirical research data, such as interviews, personal experience, introspection, various cultural products, life story, conversations and observation).

Hossain's (2009) research on the impact of the global financial crisis on food and fuel in developing countries communicates several factors which may have influenced sellers and producers in adulterating food items. First, due to the global financial crisis there is a change in trend of food shopping habits in the developing countries; that is, there has been an increase in demand for cheaper products and they are often bought in smaller quantities. Second, consumers of these products are usually purchasing non-brand food items, and the majority of them are sold loose. There may therefore be a greater risk of adulteration as well. The research was carried out in both rural and urban communities in Bangladesh, Indonesia, Jamaica, Kenya and Zambia.

A study by Hossain et al. (2008) on consumption of food and foodstuffs processed with hazardous chemicals in Dhaka find that one of the major drivers behind food adulteration is 'comparative advantage' through lower costs with higher profits. This leads to the use of cheaper, often hazardous, industrial chemicals in food by the sellers or handlers or producers of the food items. Hossain et al. further claim that in Bangladesh consumers lack adequate (in-depth) information about the processing of goods and their quality; hence it has been difficult to deal with the problem until recently.

Hossain et al. (2008) argue that financial crisis and comparative advantage are the main drivers for food sellers or producers to become involved in food adulteration. Hence, financial reasons appear to be the major drivers for food sellers/producers to adulterate food items. However, it is important to note that child food adulteration was not within the main scope of these research studies.

Moreover, concerns have been raised by the authors regarding poor retailing and transportation facilities (Rahman and Rahman, 2012). Sultana et al.'s (2012) study on orange juices found seven out of 10 commercial orange drinks to have Yellow Six used as a colour additive in Bangladesh. Yellow Six has been banned in numerous countries in the world for its dangerous and harmful effect on human health.

Finally, Hossain (2011) confirms that more male consumers than female in Bangladesh are aware of food adulteration and have knowledge of the hazardous chemical substances used in production and preservation of food items. However, Hossain claims that, irrespective of gender, the majority of consumers in Bangladesh are aware of the harmful chemicals in food and their effects on human health. Consumers believe either there is not enough option for healthier choices or they are compelled to consume food items with hazardous chemicals, as it is difficult to identify foods which are not adulterated (Hossain, 2011).

### **2.3 Food adulteration in industry selling food to children: Global**

Solaiman and Ali (2014) mention that the food adulteration phenomenon is not only evident in emerging markets but also in numerous developed countries around the world. Where some developed countries are still fighting food adulteration internally, others may have already taken control over the situation.

A study conducted by the Boston Children's Hospital, the Harvard School of Public Health (HSPH) and the Dhaka Community Hospital in 2013 reports excessive levels of toxic metal found in turmeric powders of different brands in Bangladesh. This toxic metal is considered to be primarily responsible for lead contamination in the blood of 284 children (Solaiman and Ali, 2014). Wedeen's (1997) study confirms that people who suffered from acute lead exposure in childhood in the early 20th century in Australia demonstrated a significantly high risk of hypertension and chronic kidney disease (CKD).

The World Health Organization (WHO, 2015) reports food adulteration as unethical and criminal malpractice. Food adulteration may take place in different forms in different societies. For instance, in a developed country it can be an unethical practice to sell such a product to consumers, whereas in developing countries it can be inclusion of chemical substances to achieve financial gains (WHO, 2015).

## **2.4 Food adulteration in industry selling food to children: Developing economy**

The WHO (2015) states that food adulteration is common in countries in the South East Asia region. The WHO further reports that food adulteration normally occurs where informal food production and marketing services are commonly practised, and enforcement of food regulation is weak. Adulteration of food is normally observed in its most crude form, where prohibited substances are added or used partly or wholly to substitute healthy ingredients or to artificially create the impression of freshness in old food (WHO, 2015). The most common intention of food adulteration internationally (both in developed and developing countries) is for financial gain. Other forms of adulteration happen due to carelessness and a lack of proper hygienic conditions of processing, storage, transportation and marketing. Many of these forms of adulteration can be unintentional and are categorised as food contamination rather than adulteration. This adulteration ultimately causes the consumer either to be cheated financially or to become a victim of illness or disease (WHO, 2015).

Child (infant) milk has also been targeted for adulteration in the 21st century developing world. Evidence of adulteration with melamine in infant milk is found in China, which is intended to increase the apparent protein content. The WHO (2008) reports 51,900 children illnesses and six deaths in China, with symptoms of urinary tract stones and renal failure caused by infant milk adulteration with melamine. Wei and Liu (2012) suggest that victims (infants) of the current adulteration should be monitored in future to confirm their health status, as melamine does damage not only to the kidneys; it may damage other organs of

the body and may also have a negative impact on the human body in a later period of life. Melamine is extensively used to manufacture plastics, countertops and adhesives (Wei and Liu, 2012). In 2010, the WHO approved the maximum amount of melamine in powdered infant formula to be 1 mg/kg and the amount of the chemical allowed in other foods and animal feed to be 2.5 mg/kg (World Health Organization, 2010).

As evidence suggests that food adulteration practices are taking place to achieve different outcomes such as extending shelf life or gaining financial profits, it is important to investigate the entrepreneurial motives of the businesspeople behind such actions in context of the economy they operate within. Thus, the following section reviews literary debate on entrepreneurial behaviour within a formal and/or informal economy.

## **2.5 Formal versus informal economy**

In defining the formal and informal economy, literature provides evidence of some fundamental differences between the two terms. First, the term 'informal economy' is coined based on its informality in characteristics, as activities are not reported to the statistical office (Kiggundu and Uruthurapathy, 2018; Williams, 2015) and typically do not pay any official taxes (Rothenberg et al., 2016; Williams, 2007). The informal economy concept may exclude paid work in which commodity and/or service itself is illegal (e.g. prostitution, drug trafficking) (Williams, 2007). Secondly, entrepreneurs enter the informal sector due to its low requirements for education, skills, technology, capital and ease of entry (Sarreal, 2019). Furthermore, as business registration augments legitimacy and requires compliance with law, many new entrepreneurs delay the registration process to defer payment of registration and other ancillary or associated costs. Additionally, an unregistered business tends to be free from paying taxes. Moreover, it is also found that these informal businesses are established by their owners who are awaiting formal employment or intend to supplement their overall or net income and may not want to be involved with the

business in the long run (Sarreal, 2019). In summarising the characteristics of informal entrepreneurs, Ketchen et al. (2014) and Williams and Liu (2019) say that enterprises from the informal sector do not register with and/or declare some or all production and/or sales to the authorities for tax, benefit and/or labour law purposes when they should do so. Autio and Fu (2015) agree that, throughout the world, two-thirds of all enterprises are unregistered at start-up stage and Acs et al. (2013) claim that more than half of all enterprises operate unregistered.

This particular behaviour can be related to the rent-seeking behaviour of unproductive or destructive entrepreneurs. Considering these differences between businesses from the formal and informal economies, it is stated that there is unfair competition between the two (Rothenberg et al., 2016). Presenting further evidence, Williams and Liu (2019) find that 65.5 per cent of entrepreneurs from the Latin American formal economy witness competition from entrepreneurs from the informal sector. A harsher tone is used in describing informal economy by Rujoiu (2019), who suggests that the informal economy can take forms of diversion or abuse of advantage scale, moonlighting, criminal activities and/or fraud.

In deliberating impacts of the informal economy, Kiggundu and Uruthurapathy (2018) reveal that the informal economy can have both positive and negative impacts on the socio-economic development of a country. Moreover, though the informal economy is gaining recognition for its impact on socio-economic development, it is not taken seriously by many countries and the informal economy is interpreted to have more negative perceptions compared to the formal economy. For this reason, the informal economy is seen as a burden to the overall economy as employees are underpaid and entrepreneurship is practised without documentation and limited taxes are paid. Statistics suggest that a significant proportion of entrepreneurs are operating in the informal economy (Williams

and Liu, 2019). Williams's (2008) comparative study records that 23, 96 and 51 per cent of the entrepreneurs operate in the informal sectors of England, Russia and Ukraine respectively. As a result, the informal economy is referred as the 'shadow economy', 'underground economy', 'irregular economy', 'unobserved economy' or 'black economy' in the literature (Kiggundu and Uruthurapathy, 2018). Conversely, the informal economy is considered as a springboard for creating entrepreneurship by others, which eventually contributes to both the formal and informal economy (Williams, 2008). However, claims are made that enterprises in the informal economy are mostly owned by poor and less-educated entrepreneurs (Sarreal, 2019).

Kiggundu and Uruthurapathy's (2018) research aims to address statistical data on the proportion of an overall economy represented by the informal economy. The study finds that the informal economy and its informality is challenging and measured mostly by the percentage of a country's gross domestic product (GDP). In some cases, the informal economy is also measured by its employment contribution (Kiggundu and Uruthurapathy, 2018). Furthermore, some countries have significantly large informal sectors/economies compared to others who possess smaller informal sectors/economies (Kiggundu and Uruthurapathy, 2018). For example, Nigeria (53 per cent), Brazil (36.6 per cent) and Russia (40.6 per cent) have some of the largest informal economies in the world, whereas Kenya (29.5 per cent), South Africa (25.2 per cent) and China (11.9 per cent) are considered to have significantly smaller informal economies (Kiggundu and Uruthurapathy, 2018).

Regarding countries within the European Union (EU), data can be found claiming that 18.9 per cent of the total economy is represented by informal economy, where Austria (7.6 per cent) has the lowest and Bulgaria (31.9 per cent) the highest rate of informal economy (Rujoiu, 2019). In the context of the developing economy of Bangladesh, it is particularly

important that attention is given to investigate the status of its informal economy. The next section investigates the literature addressing the informal economy/industry of Bangladesh.

### 2.5.1 Informal economy of Bangladesh

Chowdhury (2005) states that globally a rise in growth of informal economy has been recorded, for which the informal sector can no longer be considered as a temporary phenomenon, although differences in nature of activity can be found in the informal sector of developed versus developing countries (Chowdhury, 2005). Due to lack of demand in the labour market, irrespective of a country's economic system or status, employment in the informal sector is more of a necessity than a choice, especially in countries like Bangladesh with a developing economy, and the growth of the sector is caused by more of a push factor rather than pull (Chowdhury, 2005).

In the development literature, the concepts of informal economy and informal industry/sector receive significant attention, where the concept of informal economy is used instead of informal sector in recent years (Chowdhury, 2005). Chowdhury states that the informal economy is dominated by micro-entrepreneurs, petty traders and casual workers, which includes street vendors, and these entrepreneurs are not covered by law. As a result, entrepreneurs from the informal economy can be considered illegal, due to the absence of registration. Furthermore, most of the entrepreneurs in the informal economy do not have awareness of regulatory requirements or find them too costly to comply with or follow them.

In terms of Bangladesh, the industries are classified in four different sectors: 1) large and medium industries; 2) small industries; 3) cottage industries; and 4) the informal sector (Chowdhury, 2005). The large and medium industry comprises manufacturing units, while the small and cottage industries are defined by size of capital employed. Chowdhury states that in small industry a company is expected to be engaged in either manufacturing,

processing or service activities with a fixed investment limited to Taka three crore or 30 million (approximately £269,266), whereas a cottage industry includes industrial units engaged in either manufacturing or service and are generally run by family members with a total investment of Taka 0.5 million (approximately £4,487). The informal sector of Bangladesh is defined as businesses employing fewer than 10 employees (Chowdhury, 2005). The classification of industries in Bangladesh provides the impression that street food industry entrepreneurs in Bangladesh are representatives of the informal sector of the country.

Chowdhury (2005) claims that, in case of Bangladesh, an urban pull factor plays strong role in the migration process. Due to lack of education, experience, skills and training, these rural migrants are experiencing difficulties in ensuring employment in the formal sector. This has had a significant role in the growth of the informal sector within the country. Chowdhury further reports that over 80 per cent of the total labour force in Bangladesh represents the informal sector. Specifically, 60 per cent of all employment in Dhaka is from the informal sector, whereas in other parts of the country 90 per cent or more of employees are from the informal sector.

Discussions of informal economy in the Bangladesh context show varied reasons why an entrepreneur might decide to operate in an informal economy, or vice versa. As this research intends to investigate behaviours of entrepreneurs from the informal economy of Bangladesh, it is important to review relevant literature of entrepreneurship and entrepreneurial behaviour to accumulate an in-depth understanding of the concepts. The next section aims to draw discussions with this in mind.

## **2.6 Entrepreneurship**

According to Shane and Venkataraman (2000), the major obstacle in creating a conceptual framework in the entrepreneurship field has been its definition. Until recently, most

researchers define the field of entrepreneurship merely in terms of who the entrepreneur is and what he or she does. The drawback of this approach is that entrepreneurship involves the connection of two phenomena: a) the presence of lucrative opportunities; and b) the presence of enterprising individuals (Venkataraman, 1997). Hence, by defining the field of entrepreneurship in terms of the individual alone, several entrepreneurship researchers communicate incomplete definitions that do not endure the scrutiny of other scholars (Gartner, 1988).

Shane and Venkataraman (2000) postulate that entrepreneurship studies should have involved sources of opportunities, the processes of discovery, evaluation and exploitation of opportunities. Furthermore, individuals who discover, evaluate and exploit entrepreneurial opportunities should also be included. The phenomenon of entrepreneurship provides research questions for many different scholarly fields and focuses on three sets of research questions about entrepreneurship:

- ‘1. Why, when, and how opportunities for the creation of goods and services come into existence;*
- 2. Why, when, and how some people and not others discover and exploit these opportunities; and*
- 3. Why, when, and how different modes of action are used to exploit entrepreneurial opportunities’ (Shane and Venkataraman, 2000, p. 218).*

Furthermore, there are no specific statistics identified in relation to how many people in society engage in an entrepreneurial activity/behaviour. Research suggests the number may vary between 20 per cent and over 50 per cent of the population (Shane and Venkataraman, 2000). However, in regard to the number of entrepreneurs in an economy, the supply of entrepreneurship is continuous but outcomes may contrast intensely depending on which

kind of entrepreneurial activity – productive, unproductive or destructive – the institutional matrix incentivises (Baumol, 1990; Bjørnskov and Foss, 2016). As Shane and Venkataraman's (2000) research shows, large and diverse groups of people are engaged in entrepreneurial behaviour, which makes it even more difficult to establish or identify how many of them are essentially contributing to society with a positive impact, and study of productive, unproductive and destructive entrepreneurship has been introduced since (Baumol, 1990). Further studies found that only some people and not all groups are actually engaged in entrepreneurial behaviour and there is evidence supporting the tendency of certain people responding to situational opportunity (Shane and Venkataraman, 2000). However, Baumol's (1990) study confirms a strong correlation between entrepreneurs, institutions and policies affecting the productivity of entrepreneurial activity instead of the supply of it.

It is not essential for entrepreneurship or entrepreneurial activity to happen only through creation of a new organisation. The literature suggests that entrepreneurship can also transpire within an existing organisation (Bjørnskov and Foss, 2016). Moreover, opportunities can be identified by an individual or by an existing organisation, which will encourage them to be involved in developing new products or services to exploit the opportunity (Mitra, 2020). In this process creation of a new organisation is not necessary. Moreover, researchers argue that it is a conceptual choice for an entrepreneur to be an employee (being part of an organisation) or he or she can be an independent (self-employed) person (Bjørnskov and Foss, 2016; Shane and Venkataraman, 2000). The section within this chapter addressing demographic status of street food entrepreneurs shows average age, education and training of the entrepreneurs operating in the business sector this research addresses. Additionally, the section also outlines why entrepreneurs considered by this study actually became entrepreneurs.

Bradley and Klein (2016) suggest that societies often encourage entrepreneurship for its social and economic benefits, such as innovation, job creation and new products and services that increase market choices. Entrepreneurship also benefits the individual with entrepreneurial behaviour or groups, offering creativity and problem-solving that can enhance quality of life (Bradley and Klein, 2016). Entrepreneurship is not restricted within the boundary of new firms or small and medium-sized enterprises (SMEs) with profit motives; it can be viewed more largely as a problem-solving mechanism. In addition to these benefits, whether entrepreneurship is productive and adds value to society or unproductive and rent-seeking depends on the incentives shaped by the institutional environment (Bradley and Klein, 2016). The street food selling industry also has social impact via producing economic benefits, creating employment opportunities and finally making affordable food available to the population mostly representing lower- and middle-income categories (Muzaffar et al., 2009). However, whether behaviour is productive or not is brought into question by several researchers (Muzaffar et al., 2009; Faruque et al., 2010). This study therefore investigates the motives behind either productive, unproductive or destructive behaviour of these entrepreneurs.

Entrepreneurship is a mechanism through which progressive, historical and multi-dimensional inefficiencies in an economy or industry are discovered and mitigated (Kirzner, 1997). This research assumes the street food industry in Bangladesh is experiencing such inefficiency which can be mitigated through productive entrepreneurship accommodating ethical and innovative practices.

The study of productive, unproductive and destructive entrepreneurship is paramount to the entrepreneurship literature. As reference to these entrepreneurial behaviours are often made, the next section reviews the literature on entrepreneurial behaviour.

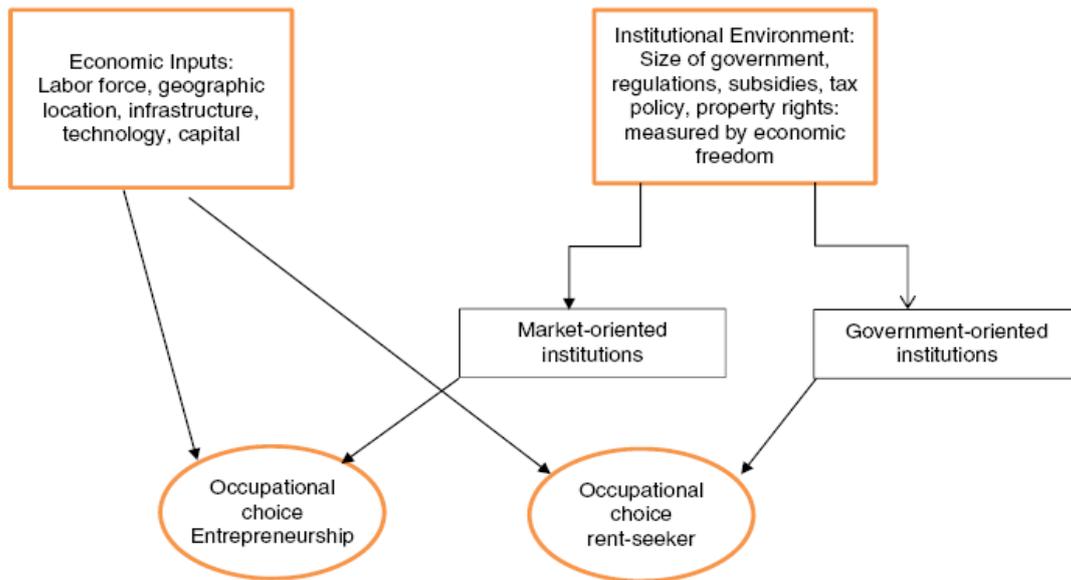
## **2.7 Productive, unproductive and destructive entrepreneurship and ethics**

Defining the concepts of productive, unproductive and destructive entrepreneurship, Baumol (1996) and Lucas and Fuller (2017) argue that productive entrepreneurship contributes to societal well-being, which includes the introduction of new products or new (production) processes. However, unproductive entrepreneurship is set to obtaining transfers, classically through rent-seeking, and entrepreneurship is considered destructive when resources are invested to capture rents or commandeer wealth.

With regard to entrepreneurial behaviour, Gohmann et al. (2016) state that the type of entrepreneurship is dependent on the incentives established and prioritised in the institutional framework of the government. Institutions affect not only the initial development and direction of entrepreneurial behaviour in the industry; they also influence the type (i.e. productive, unproductive or destructive) of entrepreneurship the industry is likely to observe (Gohmann et al., 2016).

In developing the arguments on entrepreneurial behaviour, Gohmann et al. (2016) argue that the most able of entrepreneurs ultimately lead large firms. Businesses led by able entrepreneurs experience rapid growth and create employment opportunities. Furthermore, when employment growth emerges in industries dominated by unproductive entrepreneurship (i.e. rent-seeking), economic growth is limited compared to when employment growth is visible in industry engaged in productive entrepreneurship (Gohmann et al., 2016). Moreover, supporting productive entrepreneurship the researchers further mention, people choose the profession in which their talents are most valued by others. However, when the cost of unproductive entrepreneurship is lower than the cost of delivering productive entrepreneurship, the most able businessperson will pursue unproductive entrepreneurship.

Figure 2.1: Institution influencing entrepreneurial behaviour



(Source: Gohmann et al., 2016)

Additionally, in Figure 2.1 Gohmann et al. (2016) show that while deciding on the behaviour an entrepreneur assesses the institutional and economic environment in which they intend to start their business. Considering their financial capabilities, if the institutional environment supports market-oriented behaviour, then an able person will pursue value-creating productive entrepreneurship. Conversely, when the institutional environment favours government-oriented firms, a more able person will choose unproductive entrepreneurship. In support of this argument, Tabellini (2010) says that when entrepreneurs find unproductive entrepreneurship to be more beneficial than productive behaviour, they will seek profits through the unproductive channel. Meanwhile, institutions are likely to continue and become part of the industry norm.

According to Baumol (1990), institutions influence the choice between productive and unproductive entrepreneurial behaviour. Baumol also documents how, within these societies, unproductive rent-seeking behaviour dominates the industries. Gohmann et al. (2016) conclude that, when entrepreneurs need to choose between productive and unproductive entrepreneurship, they select the opportunity with the greatest profit.

Regarding the street food industry of Dhaka, Bangladesh, evidence suggests an absence of formal institutions moderating the industry (Hussain and Leishman, 2013; Islam et al., 2017). This may have led to the phenomenon of unproductive entrepreneurial behaviour becoming a norm for the industry, as Tabellini (2010) claims.

The discussion on entrepreneurial behaviour in the above section suggests association of ethics and institution influencing the behaviour of entrepreneurs. Thus, this research further investigates these associations. The next section reviews the literature on ethics and entrepreneurship followed by in-depth literary discussions on the relation and impact of institution on the entrepreneurship phenomenon.

### 2.7.1 Ethics and entrepreneurship

Shane and Venkataraman (2000) and Venkataraman (1997) state the ever-emerging topic of entrepreneurship as a distinctive area of study, combining unique challenges and questions that can be studied in their own right. Study of ethical entrepreneurship is one of those key areas. Payne and Joyner (2006) define ethics as a system of value principles or practices and the aptitude to determine right from wrong. The term 'ethics' may be used interchangeably with 'morality', implying that the decision-maker is concerned with the moral rightness or wrongness of a decision, rather than the legality of the decision, though broadcast regulative measures or laws are designed to reflect a society's attitudes and desires about the state of acceptable activities of its people, but not necessarily to define what is morally right or wrong. Furthermore, Smith and Oakley's (1994) study claims that ethical values among small business owners in rural areas are higher compared to urban areas, and formal education is found beneficial but not essential in ensuring legal and ethical behaviour. Faruque et al. (2010) report lack of education and knowledge as one of the main concerns in ensuring ethical operations among smaller food retailers in Dhaka, Bangladesh.

Regarding ethical entrepreneurship, Dees and Starr (1992) argue that difficulties encountered by entrepreneurs are considerably different from those encountered by businesspeople and may require greater ethical guidance. Acknowledging Dees and Starr's (1992) arguments, Dunham (2021) claims that entrepreneurial activities have commanding ethical dimensions and implications and confirms that entrepreneurship is an inescapably ethical activity, both from its societal and organisational or individual levels. Venkataraman (2002) proposes that ethics and entrepreneurship are two sides of the same coin, as entrepreneurship deals with value creation and ethics is concerned with fair value distribution among stakeholders.

Support for Dunham's (2021) claims are found in earlier studies from Bucar and Hisrich (2001), Hirsch (1998) and Longenecker et al. (1988), where authors compare ethical perspectives of entrepreneurs and managers. Their studies confirm that not only do managers and entrepreneurs have different perspectives towards ethics (Bucar and Hisrich, 2001; Hirsch, 1998), but also that entrepreneurs sacrifice fewer personal values compared to a manager (Bucar and Hisrich, 2001; Longenecker et al., 1988). According to Venkataraman's (2002) interpretation, to ensure fair distribution of value, moral managers will follow ethical norms, whereas moral management and entrepreneurs (Joyner et al., 2002) will combine adherence to strict ethical norms, ethical leadership and the desire to go beyond regulative expectations to enhance social good and 'give back' to their community (Joyner et al., 2002). Payne and Joyner's (2006) study evidences entrepreneurs claiming that honesty is the best policy. However, Chau and Siu (2000) argue that ethical decision-making can have a detrimental effect on the environment. For instance, ethical perspectives of an entrepreneur can significantly alter due to competitive pressure, whereas Radev (1994) suggests that social norms surrounding the business culture will have an impact on the ethics of the entrepreneur. Based on this evidence that environment can have an impact on the behaviour of an entrepreneur, Brenkert (2002) and Derry (2002) advocate a central role

of government on entrepreneurship. Furthermore, in an economy where vulnerable workers work long hours for relatively low income but take on all associated risks of running the business, concerns with ethical operations must be questioned, as Ahsan (2020) suggests. Payne and Joyner (2006) suggest that entrepreneurs have the desire to produce quality, as many of their respondents (entrepreneurs) intend to offer the highest quality under difficult circumstances.

The next section outlines the discussion investigating institutions that have an impact on entrepreneurship and entrepreneurial behaviour.

## **2.8 Institutions and entrepreneurship**

Institutions fall into two separate perspectives in the existing academic literature: first, institutions as an infrastructural component of enterprises engaged in entrepreneurial behaviour (Bjørnskov and Foss, 2016); and second, institutions representing rules or 'rules of the game' and standards for enterprises to enforce desirable behaviour in the economy. Moreover, most strongly associated with economic freedom includes the rule of law, open markets and incentives to innovate (Bradley and Klein, 2016; Holmes et al., 2016). The context of the current research emphasises predominantly the second category of institutions focusing rules and standards for the industry.

Bradley and Klein's (2016) study on institutions and entrepreneurship posed the question: What is the purpose of institutions (formal legal rules)? Theories suggest government intervention through these institutions as an attempt to improve public welfare by rectifying 'market failures' such as underprovision of public goods, externalities, monopoly pricing, unequal distributions of wealth and income, and health and safety concerns. For instance, restrictions on international trade, health, safety and environmental regulations benefit domestic manufacturers at the expense of domestic consumers and encourage firms operating in the industry to be innovative (Bradley and Klein, 2016). There has been debate

about the appropriate role of the government and the appropriate level of intervention to promote more and productive entrepreneurship (Kim et al., 2012), where the role of government through funding contributions in encouraging productive entrepreneurship is advocated strongly by Cusumano (2016).

According to Holmes et al. (2016), institutions represent rules and standards that help to define, encourage and enforce desirable behaviour in the economy. Government policies promote (or at least protect) the ability of firms to use their resources and capabilities as they see fit. These policies and guidelines (often set by government or a regulatory authority) have the potential to influence entrepreneurs to behave productively through ethical and innovative practices and also protect them from becoming unproductive or destructive entrepreneurs by avoiding the set guidelines (Holmes et al., 2016). In this way, institutions can shape the abilities and encouragements that are essential for entrepreneurs to put in place particular strategies and behave entrepreneurially (Holmes et al., 2016).

There is a paucity of published data reflecting entrepreneurial behaviour discussing the government-set institutions in the context of Bangladesh. As a result, this research reviews the role of institutions in promoting or destabilising innovative and ethical practices in the industry selling street food to children in Bangladesh.

Holmes et al. (2016) introduce the importance of institutionalisation of technology. The researchers state that technology policies outline the abilities, incentives and means available for individuals, firms and other entities to fund or participate in knowledge development (innovation), commercialisation and integration processes in the country. Regarding technology, the government is in the prime position to authorise resources to create and enforce laws; the technology policies they endorse help to support and structure a country's innovation infrastructure (Etzkowitz and Leydesdorff, 2000). Holmes et al. (2016)

suggest that firms that are unable to innovate, or at least adapt to the innovations of others, are less likely to achieve acceptable returns and survive over time.

According to Bjørnskov and Foss (2016), the concept of entrepreneurship is profoundly linked with economics, management and social science. However, even after being connected with these disciplines, there is scant evidence of entrepreneurship literature on institutional and policy antecedents. Consequently, this has become a grey area for the current research, to investigate and identify a significant amount of legitimate academic evidence. Thus, in the context of Bangladesh, this research could not identify literature referring to such institutionalisation of technology and policy relating with entrepreneurship in Bangladesh. Hence, this is a good opportunity for this research to investigate the existence of such an arrangement in phase one of the study (qualitative). Secondly, from the literature of Holmes et al. (2016), this research assumes that firms that are unable to innovate are most likely to be involved in the food adulteration practice in the street food selling industry in Dhaka, Bangladesh.

The next section undertakes an in-depth review of Institutional theories, which are strongly associated with the study of entrepreneurship.

## **2.9 Institutional theory**

In defining 'Institution', Negash and Lemma (2020) state that there is no universally accepted single definition of an 'institution' and introduce Hamilton's (1932, p. 84) conceptualisation of 'institution' as 'a way of thought or action of some prevalence or permanence, which is embedded in the habits of a group or the customs of a people'.

According to Negash and Lemma (2020), institutional theory examines the process of establishing an authoritative guideline for social interactions and behaviour through the inclusion of schemas, rules, norms and routines (Scott, 2004). Enlightening discussion on institutional theory further, North (2005) and Scott (2008) state that strategies and

operations of a firm are shaped by the institutional environments in which they are embedded. North (2005) elaborates that institutions define the rules of the game and regulate what are acceptable and appropriate behaviours for firms, and that legitimacy is an indicator of social fitness and can only be obtained when firms align with these rules of the game and adopt socially desirable behaviours (DiMaggio and Powell, 1983; Grewal and Dharwadkar, 2002; Scott, 2008). Furthermore, in pursuing legitimacy, firms may encounter regulative, normative and cultural-cognitive institutional pressures, or the three pillars as Scott (2014) defines. Scott (2014) views institutions as composed of these three pillars, because institutions are based on culture, structures and routines, which, in turn, influence the practices of actors in an organisational field. Relating institutional theory and the development of the three pillars, Scott (2014, p. 56 and Table 2.1) posits that 'institutions comprise regulative, normative, and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life' and argues that the institutions 'can be transmitted across generations' and can also be 'maintained and reproduced'.

In elaborating the essence of the three pillars, Zhang et al. (2021) confirm that effective formal rules and regulations that induce firms to adopt and engage in certain behavioural patterns are the regulative pressure (Scott, 2001). Grewal and Dharwadkar (2002) emphasise that these rules, regulations and sanctions for non-compliance with them are usually imposed by the state/governmental and/or legal authorities. In explaining normative pressures, Zhang et al. (2021) confirm that normative pressure comes from socially accepted and historically formed interactions (Scott, 2001), and non-adherence can cause societal sanctions (Grewal and Dharwadkar, 2002). Finally, the cognitive pressures refer to culturally supported and assumed values and habits that are exerted by firms (DiMaggio and Powell, 1983). Grewal and Dharwadkar (2002) claim that cognitive pressures delicately encourage firms to comply unconsciously. Businesses generally abide by and co-operate with these

institutional pressures, to obtain legitimacy (Mohammed, 2020). In summarising the influences of these institutions, Mohammed (2020) states that the institutions influence and drive the process of recognising opportunities and their exploitation in firms' venture in organising and advancing economic efficiency of the firm and the country (Tolbert et al., 2011).

	Regulative	Normative	Cultural-cognitive
Basis of compliance	Expedience	Social obligations	Taken-for-grantedness Shared understanding
Basis of order	Regulative rules	Binding expectations	Constitutive schema
Mechanisms	Coercive	Normative	Mimetic
Logic	Instrumentality	Appropriateness	Orthodoxy
Indicators	Rules Laws Sanctions	Certification Accreditation	Common beliefs Shared logics of actions Isomorphism
Affect	Fear Guilt/ Innocence	Shame/ Honour	Certainty/ Confusion
Basis of legitimacy	Legally sanctioned	Morally governed	Comprehensible Recognisable Culturally supported

Source: Scott (2014, p. 60)

Li et al. (2008) claim that institutional theory proposes that individual and organisational actions must reflect the norms of their institutional environments, and as a result, rather than being the outcome of a coherent strategic purpose, firms are created as legitimate agents of collective purposes. Though numerous researchers have investigated the influence of social institutions, including societal culture, on individual and organisational activities (Russo, 2003), insufficient research has been conducted on the relationship between organisational corruption at the societal level and social institutions (Li et al., 2008). Scott (2001) states that the interpretation of issues or actions is influenced by institutional elements as they emerge and persist, which includes description of ethical and unethical and organisational corruption within an organisation, where norms, social and cultural meaning systems that are taken for granted are included within the social institutions (DiMaggio, 1988; Scott, 2001). Osinubi (2020) emphasises that the managerial actions are

influenced through a variety of unique processes affecting their outcomes and refers to Scott's (2008) three institutional pillars as the processes.

Osinubi (2020) further posits that political, legal, economic and social conventions are fundamental in establishing the foundational basis of a nation's institutional environment. Furthermore, Busenitz et al. (2000) claim that a nation's institutional profile affects managerial actions, including the choice to become an entrepreneur and managers' ethical reasoning and behaviour or which industry to enter (Osinubi, 2020). However, Battilana et al. (2009) argue that the individual's social position may affect their ability to act as an institutional entrepreneur, as an individual's social position influences the extent to which they have access to specific resources. Moreover, the extent to which the entrepreneurs are perceived as legitimate in the eyes of others is also crucial. The social position of the entrepreneur is crucial because their position might affect their perception of the industry and Battilana et al. (2009) confirm that Scott's three pillars of the institutional system are fundamental to the success of the strategies adopted by institutional entrepreneurs.

However, Mohammed (2020) states that the emerging institutional perspective argues the agreeable differences in entrepreneurial practice across countries between their institutional platform submerging new and established firms (Busenitz et al., 2000). Furthermore, reviewing institutional environments in developing countries, Acs and Virgil (2009) assert that other factors are dominated by the institutional environment in curbing firms' growth potential and hence private entrepreneurs are severely affected even though the governments in these developing countries have strong intentions for small businesses to advance. As Acs and Virgil (2009) state, lack of established formal institutions and other related factors combined limit private entrepreneurs in developing countries in their pursuit of market opportunities.

The next sections review Scott's three institutional pillars in detail.

### 2.9.1 The regulative pillar

According to Kostova (1997, p. 180), the components of the regulative pillar are the country's institutional characteristics as those 'existing laws and rules in a particular national environment that promote certain types of behaviours and restrict others', whereas North (1990) suggests that the key processes and enforcement mechanism are mostly enforced through laws, rules, boundaries and regulations and sanctions. Furthermore, in defining the regulative pillar, Scott (2014, p. 59) and Veciana and Urbano (2008) claim that the pillar is related to 'the capacity to establish rules, inspect others' conformity to them, and, as necessary, manipulate sanctions – rewards or punishments – to influence future behaviour'. Scott (2014, p. 62) continues that empirical indicators of the regulative pillar will include 'laws, codes, rules, directives, regulations, and formal structures of control' that govern behaviour and Negash and Lemma (2020) suggest that to earn legitimacy one needs to conform to these codes, laws, rules, regulations, directives and formal structures and non-compliance could result in damage to reputation, loss of earnings and even loss of the licence to operate. However, to develop a counter argument, study of Williams (2015) can be introduced, where Williams claims that entrepreneurs in the informal economy do not comply with any formal registration mechanism and in many cases this approach is undertaken to avoid abiding by the rules, regulations and codes from the regulative institution of the state. Meanwhile, Muzaffar et al. (2009) find that street food entrepreneurs in Dhaka, Bangladesh do not have any formal registration, which enables them to operate outside the regulative jurisdiction of the country and leaves the impact of the regulative pillar on the street food entrepreneurs of Dhaka, Bangladesh questionable.

Busenitz et al. (2000) and Wu and Li (2019) argue that, though the regulatory environment is concerned with various rules, laws, regulations and sanctions, the intention of the regulative pillar is to assist entrepreneurs or businesses. For instance, in the form of assistance, business counselling, consultancy and risk management services are provided by

the government and other formal institutions to support new firms mainly to augment start-up capability in the country. Wu and Li (2019) claim that government support for start-ups remarkably increases access to resources and the wider market in addition to securing firm legitimacy. As a result, Wu and Li recommend that all firms strategically adhere to the accepted behaviour. However, government interventions towards the start-ups, which includes street food retailers in Bangladesh, are brought under question by Khairuzzaman et al. (2014).

However, Jennings et al. (2013) question the credibility of the regulative framework that claims that the perspective abandoned the essence of classical institutional theory that seeks meaning for organisations and their march towards legitimacy. They argue that it is rare that formal laws can be neglected by any rational firm because from the beginning firms are established through conforming to certain codes of conduct and acceptable business behaviour. It is unclear, though, whether their arguments are valid in the case of firms from the informal economy or representing micro-businesses. Mohammed's (2020) empirical study investigating effects of institutional pillars on small and micro-firms in the developing economy found a significant relationship between the regulative pillar and entrepreneurial practice. However, the regulative environment has insignificant influence on the performance of the micro and small enterprise sector.

Finally, Li et al. (2008) conclude that the actions taken or regulations imposed by governments can be seen as the regulative aspects of social institutions and taking own interests into consideration; organisations that operate in these societies are likely to abide by or follow these government institutions.

### 2.9.2 The normative pillar

Wu and Li (2019) state that the normative system comprises the uncodified social norms and value systems that are often called 'culture'. The normative system not only defines the

objectives and/or goals of social behaviours, but also guides the appropriate ways to use them (Veciana and Urbano, 2008). According to Scott (2014), the normative pillar denotes shared norms, values, social beliefs and expectations that shape an individual's or firm's behaviour, and the components of normative pillars are grounded on the logic of 'appropriateness' or cultural acceptance, rather than the logic of 'instrumentality' which is the core of the regulative pillar. DiMaggio and Powell (1983) find that, typically, formal education and/or training, growth and expansion of professional associations are the channels through which normative modes diffuse. Scott (2001) emphasises that normative institutions commonly take the form of occupational standards, rules of thumb and educational curricula. Scott (2005), however, explains the norms are generally institutionalised through professional training regimes either at the universities and/or training institutions and professional associations, from where the firm or individual may gain certifications or accreditations, and other socialising mechanisms (Negash and Lemma, 2020). Li et al. (2008) argue that individuals or organisations habitually comply with components of the normative pillar in conformity to previously established norms and Mohammed (2020) claims that components of the normative pillars are positively related with organisational performance among SMEs from the developing economy.

While discussing the normative institutions, Wu and Li (2019) and Busenitz et al. (2000) claim that the normative institution measures the degree to which value systems uphold innovative behaviour within people and admiration for entrepreneurial activity within society. Positive behaviours succeed across the community for innovation, increasing the number of entrepreneurs and their ability to innovate and create new products. Busenitz et al. (2000) further claim that this change is evidenced especially within the younger population of society. Support for these claims is demonstrated through Mohammed's (2020) empirical work with SMEs in the developing economy, where Mohammed

accumulates evidence suggesting a significant relationship between the normative pillar and entrepreneurship practice.

According to Kostova (1997, p. 180), a nation's institutional profile of the normative pillar consists of 'social norms, values, beliefs and assumptions that are socially shared and carried out by individuals', whereas Scott (2008) argues that the components of the normative pillars/institutions define what is appropriate behaviour for the society's members. For instance, in the absence of legal aspects or sanctions, the normative institution promotes the appropriate ('right' or 'correct') behaviour and these institutions influence the actions of an individual or organisation (Osinubi, 2020). Osinubi (2020) claims that processes associated with each of the pillars develop the legitimate institutional platforms which influence the behaviour of the individual or organisation, rather than the assumption that the social institutions fit effortlessly to either of the pillar types (i.e. regulative, normative or cognitive).

Li et al.'s (2008) work investigating the relationship between institutional pillars and corruption suggests that normative factor that influences corruption seems to be related with governmental intervention in social and economic activities. The normative pillar is related to the rule of law. Their study claims that, though most countries have a legal system and sanctions, the rule of law differs depending on whether interventions from the government are considered normative or not and evidence is found to show that the level of governmental intervention has a positive association with the level of organisational corruption. However, empirical evidence is insufficient on investigation studying the relationship between individual corruption and governmental interventions.

### 2.9.3 The cultural-cognitive pillar

Finally, in describing the cultural-cognitive pillar, Scott (2014, p. 67) refers to the 'collection of internalized symbolic representations of the world' that 'mediate between the external

world of stimuli and the response of the individual organism'. These aspects of the cognitive institutions exemplify the symbols, signs, gestures, words and the cultural framework and rules that direct the understanding of the nature of reality and shapes what meaning is to develop from these symbols (Scott, 2001). These symbols encourage acceptable 'patterns of thinking, feeling, and acting: mental programs, or the "software of the mind"'. Scott (2014, p. 68) explains that usually the symbols or indicators of the cultural-cognitive pillar of the institution combines 'shared understandings, professional ideologies, cognitive frames or set of collective meanings that condition how organizational actors interpret and respond to the world around them'. Where regulative and normative pillars of the institution incline to hinge on the logics of 'instrumentality' and 'appropriateness', the cultural-cognitive pillar is grounded on the logic of 'orthodoxy, the perceived correctness and soundness of the ideas underlying action' (Scott, 2014, p. 68).

When analysing institutional theory and associated pillars, Ahlstrom et al. (2010) suggest that the cognitive institutional pillar represents individual interpretation of social norms and values within the larger societal and national landscape. Besides, awareness of how to seek professional support and counselling services in times of risk and difficulty and knowledge of where to access market information and stakeholder collaboration constitute the cognitive domain (Busenitz et al., 2000; Mohammed, 2020). Wu and Li (2019) state that the cognitive institution comprises the skills and knowledge possessed by the people in a country related to establishing and operating a new business, and at an individual level the cognitive institutional pillar stimulates individual behaviour. Relating to entrepreneurship, Busenitz et al. (2000) argue that entrepreneurial cognitions comprise the knowledge and skills possessed by people in a society and country pertaining to establishing and operating a new business. Supporting claims made by Busenitz et al. (2000) and Mohammed (2020) found evidence suggesting a significant relationship between the cognitive domain and

entrepreneurship practices. However, Mohammed (2020) did not find any relationship between performance of the organisation with the cognitive domain.

The cognitive pillar of social institutions emphasises the individual's (or organisation's) commonly shared understanding and perception of what is typical or taken for granted (Busenitz et al., 2000; Scott, 2008). Thus, Osinubi (2020) elaborates that the components of the cognitive institution of a nation's institutional profile replicates the shared knowledge of the symbolic systems and cognitive structures. Kostova (1999, p. 314) states that 'cognitive programs such as schemas, frames, inferential sets, and representations affect the way people notice, categorise and interpret stimuli from the environment'.

Lastly, Li et al. (2008) suggests that individuals and organisations usually abide by these symbols, words, signs, gestures, social rules and frameworks unconsciously. These cognitive institutional aspects form a culturally accepted, reinforced and conceptually correct basis of legitimacy that becomes unquestioned.

## **2.10 Entrepreneurship and innovation in a developing economy**

Yunus (2006, pp. 9) redefines the entrepreneur and entrepreneurship in a broader way:

*'... Let us suppose an entrepreneur who, instead of having a single source of motivation (such as maximising profit), now has two sources of motivation, which are mutually exclusive, but equally compelling: a) maximisation of profit, and b) doing good to people and the world. Each type of motivation will lead to a separate kind of business. Let us call the first type of business a profit-maximising business, and the second type of business as a social business'.*

Ghalib et al. (2009) argue that Yunus's (2006) concept of enterprises will be a new world of business where enterprises will be of two types: 1. Well-established profit-maximising kinds, which are devoted to making private financial gains alone and they can be called profit-

maximising enterprises (PMEs); and 2. The social benefit-maximising kinds, which are created to do good to people, rather than functioning with the solitary intent of making private financial gains. Ghalib et al. mention that they can be called social business enterprises (SBEs). It is evident and understandable from the current scenario of the street food industry in Bangladesh that firms with a sole intention or focus to maximise profit are engaging in food adulteration, whereas an ethical and innovative approach in operation may deviate their motivation from food adulteration and transform them toward productive entrepreneurship and have a positive social impact.

In providing examples, Ghalib et al. (2009) do not look into the whole food industry; rather they examine a particular sector: dairy. Children make up a large proportion of the consumers of products from the dairy sector. The dairy industry is a significant part of the food sector, including food sales to children globally, with product ranges including milk, butter, cheese, ice cream, ghee, beverages, milk powder and many others. Hence this study reflects on this in consideration of food adulteration in the informal street food industry selling food to children.

The example focuses on Gujarat Cooperative Milk Marketing Federation (GCMMF), India's largest food products marketing organisation. It is a body of milk co-operatives in the state-level of India. Some 2.7 million farmers are managed by GCMMF. The main aim of the co-operative is to provide remunerative returns to farmers while serving the interests of consumers by providing quality products. Under the brand name of 'Amul', the corporation has multiple products like milk, butter, ghee, cheese, ice cream, beverages, milk powder and pizza. Through significant reduction of the presence of rent-seeking middlemen from dairy businesses in India, the Amul model has become a unique and innovative model of co-operative development. Through its model Amul has empowered farmers through skills of processing, procurement, marketing and recently of being in direct contact with the

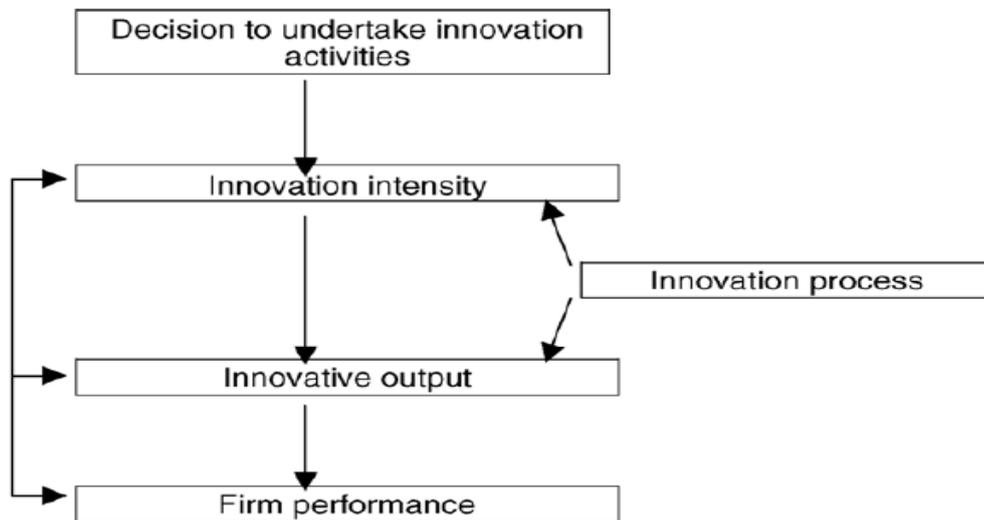
customer of their (farmer) products through retailing. This approach has benefited the industry and Amul in multiple ways: first, the model has ensured fair returns for milk produced; secondly, closeness to the market which was never evident before; and thirdly, the benefits and positive outcomes of the model are apparent a real time (Kurien, 2004). Further information on the operational model of Amul can be found in Appendix 5, where details are provided on how milk is collected from farmers in rural locations daily and how regular food standard tests ensure that food adulteration is prohibited.

Ghalib et al. (2009) state that in Bangladesh the majority of these organisations in the sector are commercially motivated to achieve financial gains. This may have driven them towards food adulteration in the industry selling street food to children. Ghalib et al.'s work provides the impression that an innovative model adoption improves the standard and quality of a product and that is the expected social impact.

Nonetheless, to be innovative an organisation or entrepreneur has to go through a process of innovation. Kemp et al. (2003) propose a four-stage innovation process (Figure 2.2) which can be adopted by any organisation irrespective of the sector or industry they are operating in. In the first stage of the innovation process, the organisation or entrepreneur has a decision to make: whether to allocate financial and human resources to innovation activities or not (Kemp et al., 2003). In the second stage of the process, based on allocated resources the process will provide a measure of the intensity of these activities at the firm level. In the third stage, it is expected the firm will receive innovative output based on the allocation and activities from stages one and two, respectively. The innovative output could be a process or product innovation related to the firm's initial intentions. Finally, the firm's performance should be related to the innovative output in the final stage (stage four) of the process. However, it is important to specify that the scope (objectives) of this research does not allow the researcher to investigate all four stages of Kemp et al.'s (2003) innovation process.

Hence, in this research the researcher will look at only the first three stages of the innovation process.

Figure 2.2: The innovation process and firm performance



(Source: Kemp et al., 2003, cited by Lopez, 2006)

In the study of innovation and productivity of firms in developing countries, Lopez (2006) finds that large organisations or entrepreneurs are more motivated to engage in innovative activities and to contribute innovations to the market. Skilled labours have a significant positive impact on the probability of these firms undertaking innovation activities and becoming successful. In contrast, it is important to note that, in the case of the Bangladesh street food selling industry, firm sizes could be a drawback as a majority of the firms in the industry are small entrepreneurs and may lack skills or knowledge. Furthermore, Lopez (2006) states that performing in-house innovation activities improves the likelihood of becoming an innovator. In doing so, the entrepreneur has to identify whether he or she has the resources to run or operate the innovation activities internally, rather than outsourcing the process of innovation (Lopez, 2006). The research concludes that innovative entrepreneurs performed better than non-innovative entrepreneurs in terms of labour

productivity. Moreover, innovating jointly with labour skills is the main element of firms' productivity (Lopez, 2006).

Alongside non-innovative intentions, industries in developing countries encounter other drawbacks from the entrepreneurs of the sector. Research suggests that one of the major obstacles for firms to become innovative is corruption (Tonoyan et al., 2010). Tonoyan et al. (2010) and Bjornskov and Paldam (2002) claim that it is evident that entrepreneurs from the countries of developing economies are more likely to engage in corruption compared to entrepreneurs operating in a developed economy and suggest preconditions which should be considered in developing economies to reduce corruption. According to Tonoyan et al. (2010), effective institutionalisation of legal and financial frameworks is fundamental in reducing corruption in developing economies. The legal and financial framework in the food industry is not yet effectively established in Bangladesh.

With regard to the legal infrastructure, Tonoyan et al. (2010) suggest that, besides protection of contracts and resolving business disputes quickly, efficiently and impartially, it is necessary to improve the implementation and enforcement of law. Subsequently, for the financial infrastructure, the same research suggests that a suitable environment and process need to be created where accessibility of capital (including legal rules regulating it) is made easier and where the process of applying for capital becomes clear for entrepreneurs. One of the approaches in achieving this could be introduction of more competition and transparency in the provision of capital between financial institutions and banks, which would reduce the incentives of those influencing bribes (corruption) in exchange for awarding financial capital.

In the debate about where corruption takes place in an institution, Tonoyan et al. (2010) suggest it is more likely in an informal institution to accommodate more corruption compared to a formal one.

*'Formal institutions are those written or formally accepted rules and regulations which have been implemented to make up the economic and legal set-up of a given country. Informal institutions are traditions, customs, societal norms, "shared mental models," unwritten codes of conduct, ideologies, and templates' (Baumol, 1990, in Tonoyan et al., 2010, p. 805).*

In many cases, entrepreneurs engage in corruption where they have high levels of trust and expectation towards national bureaucracy to satisfy or deliver the promised deal. In this circumstance, having policy measures to destabilise such agreement is necessary to ensure reduction of corruption. Furthermore, regular staff rotation in the public sector (Lambsdorff and Nell, 2006, pp. 229–246) could be another approach in reducing corruption, as this will destabilise the trust and expectation between bureaucrat and entrepreneur (Tonoyan et al., 2010).

Alongside attention towards infrastructural (formal and information institutions) corruption, it is also necessary to reduce corruption, which takes place in other forms of violation. Not paying duties, not following trade regulations (e.g. producing adulterated child food) or engaging in and encouraging unethical business practices are also forms of corruption and violation of these laws should be practised and implemented quickly, efficiently and impartially (Lambsdorff et al., 2004, pp. 88–112; Tonoyan et al., 2010).

Finally, Bardhan (2003) and Tonoyan et al. (2010) recommend that, through sustained public campaigns, significant numbers of entrepreneurs and public officials (bureaucrats) have to be convinced of the social and economic costs of corruption. Eventually, formation of effective anti-corruption regulations requires providing attention to the formal and informal institutions that collectively provide the contexts for industry (e.g. child food) and entrepreneurs to flourish in a developing economy.

Progressing further with the discussions on innovation and entrepreneurial behaviour, it is important to review what evidence of innovation can be found in the food industry, as this industry is the centre of investigation in this study. The following section investigates literature on entrepreneurship in the food industry followed by discussions on innovation in the food industry.

## **2.11 Entrepreneurship in the food industry**

The majority of the enterprises in the Bangladesh food sector are private (Al Mamun et al., 2013). It is often expected that entrepreneurship and innovation are bonded habitually, especially when the enterprise is private (Sauka, 2008). However, Hobsbawm (1969) argues that although it is assumed that private enterprises have an automatic bias towards innovation, this is not necessarily so. According to Hobsbawm (1969), businesses have a bias only towards profit. This offers an appropriate opportunity for this research to investigate whether this is the case in Bangladesh by addressing entrepreneurs operating in the private and informal (unregistered business) sector.

Baumol's (1990) and Sauka's (2008) studies on entrepreneurship categorise activities of entrepreneurs into three categories: productive, unproductive and destructive. According to their research, an entrepreneur can be productive or make a productive contribution towards society and economy through innovation (Sauka, 2008), whereas unproductive and destructive entrepreneurs will practise unproductive activities like rent-seeking, corruption and organised crime (Sauka, 2008). Furthermore, unproductive enterprises or entrepreneurs constitute a major threat to productive entrepreneurship (Baumol, 1996).

Sauka (2008) defines productive entrepreneurship as 'any activity that contributes directly or indirectly to net output of the economy or to the capacity to produce additional output'. Innovation in this case is given as an example of productive contribution from entrepreneurs. Innovation is also referred to as 'productive entrepreneurship' as the

discovery of new attributes and opportunities (Foss and Foss, 2002). Sauka (2008) defines unproductive and destructive entrepreneurship as 'entrepreneurial actions those are not desirable can be considered as unproductive or destructive'. Not necessarily all action of entrepreneurs will be desirable. In fact, an entrepreneur makes no productive contribution to the real output of an economy, and in some cases even plays a destructive role (Baumol, 1990). As a result, this research aims to identify the potential reasons why entrepreneurs from the food industry of Bangladesh, who are specifically selling street food to children, are behaving in an unproductive nature, and in many cases showing destructive behaviour as identified in the introduction and context chapter.

The food industry in Bangladesh, which includes both the formal and informal sectors, reflects a similar scenario, where undesirable actions from entrepreneurs are evidenced. A large number of entrepreneurs are either unproductive or destructive; financial gain can be the focal point for entrepreneurs to become unproductive in the food sector (Faruque et al., 2010). Furthermore, current research assumes that unproductive activities such as rent-seeking, corruption and organised crime are dominant in the industry. In relation to guiding entrepreneurs to become productive, Baumol (1990) suggests that efforts should be given to adopt social objectives, so it is much easier for the entrepreneur to become productive.

Sauka (2008) states that, for entrepreneurs to become productive, it is important to welcome entrepreneurial behaviour. The academic literature on entrepreneurship and entrepreneurial behaviour suggests number of actions which can be considered as entrepreneurial (Baumol, 1996; Sauka, 2008), for instance, proactive behaviour, risk-taking, the development of new products and markets, start-up of new organisations and growth in existing ones. Baumol (1996) and Sauka (2008) also suggest that the majority of the actions mentioned may be influenced by various external environmental factors. Furthermore, Sauka's (2008) research finds corporately that SMEs are more productive as an organisation,

as entrepreneurs have a higher level of education. Lack of education, understanding and awareness of the food handlers in the country are the main reasons behind the unproductive behaviour of entrepreneurs in the informal industry.

In support of the argument, Grameen Danone Foods Limited's (GDFL) model can be introduced as good practice. Being part of the Grameen Bank (a private enterprise and a social enterprise), the model has avoided rent-seeking intermediaries in their operations similar to Amul India (Indian dairy co-operative society). Grameen Danone Foods Ltd offers affordable and high-quality dairy products to the community, mostly targeted towards children and schools. One of their objectives is to generate profit from their trade and at the same time have a social purpose to provide nutrition to schoolchildren. However, affordable product pricing and maintaining overheads to a minimum have been major challenges for GDFL. Similar to Amul, raw material (milk) is collected from a number of sources, and by specially refrigerated vehicles that operate across multiple collection centres (Ghalib et al., 2009).

Moving from discussions on entrepreneurship in the food industry, the next section expands the discussion on innovation in the food industry.

## **2.12 Innovation in the food industry**

Saguy and Sirotinskaya's (2014) study on entrepreneurs (mainly small and medium-sized) in Bangladesh's food industry suggests that entrepreneurs struggle to compete in an innovative environment, especially with regard to new product development (NPD) and innovative approaches of operation.

Earle (1997) suggests that innovation in the food industry should combine technological innovation with social and cultural innovation. This innovation should occur throughout the entire food system, including production, harvesting primary and secondary processing,

manufacturing and distribution (for example, producer, seller, wholesaler, retailer and importer). If innovation can be approached and established at such a level, ultimately a new and/or improved consumer product and service can be sustained. In supporting Earle's (1997) suggestions, Sarkar and Costa (2008) postulate that societies drive the food industry to open up to external sources of knowledge in order to establish successful new products and technologies.

Providing further context to the claims made by Earle (1997), Sarkar and Costa (2008) claim that there are multiple areas where innovation can be incorporated in the food industry. Innovations can be focused or targeted in areas of food technology, for instance, NPD, process engineering, consumer needs or food qualities. If sustainable innovation can be achieved in one area of the food industry or food system, positive impact or change can be expected from other sections or areas of the system (Sarkar and Costa, 2008). For example, if sustainable innovation in new healthy food can be achieved it may influence consumer eating patterns and, in general, social and cultural areas. Hence, it is suggested that food industry innovation strategies need to consider the total mechanism or impact in the food system and should not only be concerned with technological changes but also social and environmental changes, so as to produce food that satisfies the nutritional, personal and social needs and wants of all communities.

In a developed economy context, Traill and Meulenbergs' (2002) study of 12 food-manufacturing companies in six European countries focuses on ways in which these firms in the food industry innovate. The research finds evidence of companies' motivation and emphasis on product or process innovation. Their study suggests that the traditional 'demand-pull' versus 'technology-push' versus 'a mixture of both' debate is too simplistic. Firms behave differently depending on their dominant 'orientations' towards the process, the product or the market, the types of market they supply, company size, the nature of

their ownership (public, private, co-operative), market size and scope (Traill and Meulenbergh, 2002).

Alongside entrepreneurs' motivation for innovation, institution (formal and informal) plays a pivotal role in shaping the behaviour of the entrepreneur. The next section examines the relationship between institution and entrepreneurship.

The next section makes the concluding remarks for this chapter through identifying the research gaps and leading into the next chapter, which discusses the Bangladesh context.

### **2.13 Gap and final words**

Adequate research evidence is not available on street food retailers targeting children, whereas the majority of research conducted on street food retailing addresses concerns in general terms to the street food industry. Furthermore, research studies of street food adulteration have used a similar methodology: observation.

This overall status demands action, via research, to identify the current scenario of street food being sold to children in Bangladesh. The research adopts a more systematic approach to identify details of the area of concern and subsequently identify a sustainable framework to encourage productive entrepreneurship through innovation for street food entrepreneurs targeting children in Bangladesh. Finally, evidence of the current status of ethical and innovative entrepreneurship in the food industry of Bangladesh is also not available.

The gaps in the literature relating to street food adulteration in Bangladesh prompts this research to review the context of Bangladesh in depth. The next chapter reviews the Bangladesh context and presents the mind map and the conceptual framework derived from the review.

## Chapter three: Bangladesh context and conceptual framework

### Introduction

According to Welter et al. (2019), in recent history, research on entrepreneurship was not being contextualised. First, the common assumption regarding entrepreneurship was that entrepreneurship takes place mostly in western or developing economy contexts, where entrepreneurial activity was undertaken by men, as the way they were expected to behave and their activities were exclusively motivated by pursuit of growing profits. Furthermore, entrepreneurial activities should be considered valuable for an economy which is high growth and technology-driven. This leads to a suggested focus on a particular set of contextual factors, such as: who (men); where (western or industrialised countries); how (technology-driven innovations); and why (to generate profits and wealth). The context of majority entrepreneurship research has been narrow, not diverse and mostly taken for granted (Chandra, 2018). Welter (2011) stresses the importance of contextualisation in understanding 'where', 'when', 'how' and 'why' entrepreneurship is happening and 'who' is involved.

Secondly, and more importantly, many researchers support this taken for granted context of entrepreneurship research through a largely unreflective approach. For instance, factors like gender and developing economy have not been considered for contextualisation, as it has been assumed only men would start a new business in the western or developed economy. Evidence of criticism toward contextualisation in entrepreneurship research is found in Gartner's (1995) study, where Gartner questions the tendency to focus only on personal or internal factors for assessing the behaviour of entrepreneurs, when there are external factors influencing the environment in which the business operates.

Welter et al. (2019) suggest seeing, considering and analysing a wide range of entrepreneurs that often remain invisible to us, as a contextualised perspective on

entrepreneurship is pivotal. Contextualisation of entrepreneurship is not about expecting and finding variations across geographies or industries only; contextualisation is about identifying and developing theories to understand differences and where we might otherwise expect sameness. For instance, why does one business grow, while another remains small? Why do the ventures set up with similar resource endowments and operating in the same or similar institutional contexts sometimes develop exceptionally differently? Why do some businesses innovate and others not, though they are in the same regions and/or industries? Are there contexts hidden behind our conventional assumptions about why entrepreneurs behave differently? Gartner (2008) states that as contextualising entrepreneurship is about acknowledging differences and variations in entrepreneurship, it points us towards variation typically hidden, and also sheds new light on outwardly well-known entrepreneurship phenomena. Furthermore, Welter and Gartner (2016) stress that it is essential to move forward from analysing 'context' to analysing 'contexts' of entrepreneurship. Acknowledging multiple and diverse contexts when analysing entrepreneurship phenomena will inform knowledge effectively.

On contextualising entrepreneurship in the informal economy, Welter et al. (2015) state that previous research on informal entrepreneurship within the management and entrepreneurship realm has gained surging prominence, though the contextualisation of informal entrepreneurship is still coming as a surprise to many researchers, even if their key focus is studying informal sectors in development studies. Williams and Nadin (2010) explain the informal economy as a widespread phenomenon, reflected in the variety of labels for the concept. They continue that 'grey', 'black', 'shadow' or 'irregular' economies exist in all countries around the world, regardless of the prevailing economic systems and the activities within the informal economy, and are not a new phenomenon. Welter et al. (2015) cite that the concept of the 'informal sector' was introduced by Keith Hart in the development studies field in 1973 when Hart researched employment in Kenya. Further evidence of the

considerable share of individuals involved in informal activities alongside formal activities is recorded in developing countries by Welter et al. (2015). For instance, Welter and Smallbone (2011b) use the example of the former Soviet Union, where the 'second' or 'grey' economy complemented the formal economy, reflecting deficits of the planned economy and playing an important role in enabling the economy and society to function.

When elaborating on context in the informal economy, Welter et al. (2015) state that it is a general understanding that the informal economy happens outside legal boundaries but within tolerated societal boundaries and informal economic activity can be different in different countries, when the tolerance level of societal boundaries are likely to vary in different countries. In basic terms, informal entrepreneurship refers to income generated from activities that take place fully or partially outside government regulations, laws and taxation, but within an acceptable and tolerable normative institutional frame that is based on implicit mutual understanding of society. However, the acceptable and tolerable activities exclude criminal activities like the drugs trade or trafficking that society does not tolerate.

Those entrepreneurs or businesses operating outside government regulations without licences and not complying with legal regulations are clearly to be classified as operating in the informal sector. They operate alongside firms which are registered or licensed but avoid some of their taxes by paying 'envelope wages' or by using other semi-legal or illegal strategies to cut down on taxation and costs (Welter and Smallbone, 2011a; Williams, 2008a). Another set of businesses or entrepreneurs are legally registered and fully compliant with legal rules, but they may still source some of their resources informally (Smallbone and Welter 2001).

According to Welter et al. (2015), there seems to be a consensus in recent studies that informal entrepreneurship needs to be viewed on a continuum from formal to informal

rather than the two domains existing separately. There is no agreement or understanding about whether informal entrepreneurship will vanish over time, as businesses acquire legitimacy. However, many researchers see informal activities as a permanent phenomenon and place significant emphasis on the contributions to employment and social and economic development the informal sector makes, irrespective of whether the informal entrepreneur is being legal and/or registered. Other researchers argue that the informal sector may be a seedbed for considerable ventures over time, suggesting informal entrepreneurship as a stepping stone during the life-cycle of a business, operating to collect initial capital and test the market (Slonimski et al., 2009; Williams et al., 2007). Still others focus particularly on contexts showing lack of (access to) resources and a functioning institutional framework, where entrepreneurs may be more prone to start informal arbitrage, progressing over time towards more substantial and formally registered businesses (Smallbone and Welter, 2001; Welter and Smallbone, 2009).

In contextualising the 'who' within informal economy, Wallace and Latcheva (2006) claims that some researchers judge informal activities to be a simple survival mechanism, or as a leftover from a previous period. Nevertheless, Williams (2005a) argues that informal activities are not limited to unemployment and poor individuals, but rather cut across socio-economic influences and contexts. Moreover, though, the 'who' context in an informal economy can be closely associated with social orientation and affluence of the individual. Especially within a deprived population, these informal entrepreneurs can become commercially oriented if they operate in a resource-rich environment (Williams and Nadin, 2012). Exploring further, Obeng-Odoom and Ameyaw's (2014) study distinguishes between two groups of individuals operating informally: first, unqualified informal workers; and second, highly educated and skilled informal workers who fail to get a formal job with their qualification.

Finally, contextualising 'why' in an informal economy, Welter et al. (2015) claim that researching informal entrepreneurship is not just meaningful but necessary, specifically with attempts to be made to assess potential of the circumstances, where informal entrepreneurs are forced out of the formal economy by a punishing regulatory and taxation regime. Furthermore, research on entrepreneurship and the informal economy may inform discussions on empowerment, emancipation and agency through entrepreneurship.

This chapter reviews the phenomenon of street food adulteration in the context of Bangladesh. In developing the arguments this chapter commences with reviewing demographic information of Bangladesh, with special attention to street food, the entrepreneurs operating within the sector and their characteristics. Attempts are made to demonstrate the common practices of food adulteration in the country, addressing the sector selling street food to children. The chapter includes discussion on concerns about the street food selling sector of Bangladesh. The chapter concludes the discussions by reviewing food adulteration acts and their implications in Bangladesh.

The arguments and discussion in this chapter provide an understanding and knowledge of concerns within the industry and eventually guide the research to devise a suitable methodology to achieve the research objectives. Furthermore, based on the secondary research, a mind map (Figure 3.1), concept map (see Appendix 5) and conceptual framework (Figure 3.2) are developed.

### **3.1 Background and current understanding: Bangladesh street food-selling industry to children**

#### **3.1.1 Demographics of Bangladesh**

Bangladesh is a country in South Asia with a large population of 161 million considering the country's size of 147,570 km<sup>2</sup> (The World Bank Group, 2017). According to the international poverty line of \$1.90 per person per day, Bangladesh's present poverty rate is 14.5 per cent

in 2016, as reported by World Bank Group (2020), which is lower than the 44.2 per cent reported in 1991. The current GDP growth of Bangladesh is reported by the World Bank Group to be 8.2 per cent (The World Bank Group, 2020).

Although Bangladesh is experiencing a steady growth in the economy (The World Bank Group, 2020), a large proportion of the population finds it difficult to source food that meets their nutritional requirements (Khairuzzaman et al., 2014). Khairuzzaman et al. find that street food plays an important role in meeting the socio-economic requirements for urban consumers who fall in the lower- and middle-income categories. For people in the low-income category, street food assures nutritional requirements at an affordable price. Tinker (1997) suggests this is a common scenario in many developing countries and in most cases street foods are ready-to-eat foods and beverages or prepared at home and consumed on the streets without further preparation. Alongside the benefits of street food, Khairuzzaman et al. (2014) report concerns. In many cases, street food-selling entrepreneurs are from uneducated and poor backgrounds. As a result, they fail to maintain environmental, hygiene and food safety requirements (Khairuzzaman et al., 2014).

A study conducted on the socio-economic status of Bangladesh reports that a quarter (25 per cent) of street food entrepreneurs in Bangladesh cannot write their name, do not possess a formal education and are illiterate. The informal food industry in Bangladesh requires small investment (e.g. less red tape). According to Khairuzzaman et al. (2014), 88 per cent of entrepreneurs have their own businesses. The majority of these entrepreneurs work between 13 and 18 hours every day without access to proper toilet facilities (Khairuzzaman et al., 2014).

Among the informal street food retailers in Bangladesh, this research focuses on retailers selling street food to children. The main reason for this emphasis is that children are one of the largest proportions of the population in Bangladesh. Statistically, 31.6 per cent of the

total population belong to the 0–14 years age group (The World Bank Group, 2017) and these are the prime focus of this project. It is important to note that 63.2 per cent of the population belong to the 15–64 years age category and the remaining 5.1 per cent fall in the over 65 years category of the total population (The World Bank Group, 2017).

Finally, it is important to note that approximately 30 million people in Bangladesh suffer from foodborne illnesses every year. A large proportion of these cases are children and reports suggest that consumption of street food is associated with these illnesses (Khairuzzaman et al., 2014). Records show that there are 501 hospital visits from children on a daily basis in Bangladesh; the majority of these cases are related to food-related illnesses (Mridha, 2011).

### 3.1.2 Street food retailers (informal sector) in Bangladesh

In satisfying the increasing demand for food of urban dwellers, street food plays an important role (Muzaffar et al., 2009). Furthermore, street food plays an important socio-economic role in relation to employment potential and offering the food at prices affordable to the middle- and lower-income groups (Muzaffar et al., 2009; Faruque et al., 2010). However, street food retailers providing nutritional implications and food safety are brought into question by research conducted by Faruque et al. (2010). Supporting the food safety concerns in Bangladesh, it has been mentioned that the majority of the street food items are served in open spaces, with the intention of attracting customers, where storage conditions and appropriate protective packaging are also questioned (Noor, 2016).

In the following section, the researcher intends to provide details of the status of the street food industry of Bangladesh with statistical information. The sections will provide clear understanding of the concept of street food, along with discussions about why people are becoming street food retailers over other alternative options they could undertake.

Moreover, information on their business, education and type of items sold (specifically to children) are also introduced in these discussions.

### 3.1.2.1 What is street food?

The Food and Agriculture Organization of the United Nations (FAO) has defined street foods as a diverse range of ready-to-eat foods and beverages prepared and/or sold by stationary or mobile vendors, especially on streets and around public institutions such as schools, railway stations, hospitals and bus terminals (WHO, 1996; Muzaffar et al., 2009) and can play a dynamic role in the economic development of the country (Husain et al., 2015). In narrating the concept, Noor (2016) states that street foods are prepared, processed and handled mostly in a quick and casual way. Retailers of these street food items in developing countries like Bangladesh are non-professional personnel and mostly unskilled (Husain et al., 2015). Street foods are relatively cheap and easily accessible and feed millions of people daily with their wide range of offerings. Additionally, the street food industry creates a significant amount of employment, in many cases for people with little education and training (Faruque et al., 2010).

However, alongside these advantages of the diverse range of food offerings and increased employment opportunities, the street food industry has some drawbacks. According to Mathias et al. (2015), from a strategic management perspective, the informal sector or economic activity are described as illegal and unproductive. Support of these claims is also evidenced through the work of Webb et al. (2009), where the authors describe these activities as ways in which entrepreneurs can recognise and exploit opportunities, which can also be identified as rent-seeking behaviour of entrepreneurs (Baumol, 1990). Additionally, Islam et al. (2015) state that in developing countries street food is usually a major cause of illnesses; nevertheless the authors appreciate street food for its unique flavours and convenience. The informal activity or sector may provide entrepreneurs with economic

returns and customers for the desired products and services, but with the caveat of undermining and potentially 'crowding out' regular, productive entrepreneurship. Entrepreneurs are earning a living and supplying food to meet increased demand, but in this way they may discourage entrepreneurs who intend to operate productively.

Although there are concerns with the informal industry, Mathias et al. (2015) state that developing and implementing effective institutions can help reduce the extent to which entrepreneurs engage in illegal activities such as food adulteration. However, the transition to the formal industry or economy has to be designed in such way that it can attract entrepreneurs from the informal sector to the formal one. The authors suggest that policymakers should emphasise making formal activities more economically attractive to entrepreneurs in the informal industry to reduce corruption and informal activity (Mathias et al., 2015).

Entrepreneurs engaging in the formal industry do meet some drawbacks. Costs of business registration, licensing, permits and insurance requirements can hinder formal activity (Mathias et al., 2015). However, the greater the costs of formally starting or launching a business, the more likely it is that entrepreneurs will decide on informal operations over formal activity (Mathias et al., 2015).

In the case of Bangladesh and taking the developing economy of the country into consideration, Faruque et al. (2010) find that street food entrepreneurship is a popular type of informal self-employment in the city of Dhaka. Street food entrepreneurs are mainly linked to retailing and cooking units. They sell a diverse range of products from different kinds of vending units. This information provides the context that entrepreneurship in the Bangladesh street food-selling sector is largely informal and can be potentially unproductive (Muzaffar et al., 2009).

### 3.1.2.2 Rationale for becoming a street food retailer

Research conducted on over 300 street food vendors in Dhaka addresses a number of key areas of street food retailing (Faruque et al., 2010). As the number of street food retailers is increasing at a significant rate, the research investigates the reasons for people to become street food entrepreneurs. The results are illustrated in Table 3.1.

Table 3.1 Reason for doing street food business

Reasons	Percentage of respondents
Easy to earn	7.23
Low investment required	69.23
No skills required	14.57
Part time business	0.67
Others	8.33
(Source: Faruque <i>et al.</i> , 2010)	

The findings shown in Table 3.1 give rise to some areas of concern with street food retailing in Bangladesh. As none of the reasons can be directly linked with productive entrepreneurship, easy to earn (7.23 per cent), no skills required (14.57 per cent) and part-time business (0.67 per cent) can be directly linked with a rent-seeking tendency and unproductive entrepreneurial behaviour, whereas low investment required (69.23 per cent) can be indirectly linked with unproductive entrepreneurship (Faruque et al., 2010). As a result, this study intends to identify whether similarities can be found in the current industry. Additionally, hypotheses have been developed from this data and will be tested in this study accordingly.

### 3.1.2.3 Age, education and training of street food retailers

According to Muzaffar et al. (2009), street food entrepreneurship is a distinctive and dominant part of the large informal sector in Bangladesh. Generally, street food enterprises are relatively small in size, requiring mostly simple skills, basic facilities and, most importantly, limited amounts of capital or investment. With all these basic or below basic

characteristics, street food entrepreneurs hold incredible potential to generate income and create employment opportunities for the rapidly rising urban population of Dhaka.

Age (both of entrepreneurs and the businesses), education and training can all have significant impacts on the operation of a business, as these can drive the intentions and approach to run the business (Baumol, 1996). Faruque et al.'s (2010) study on 300 street food retailers found that 58 per cent of respondents belong to the 21–40 years age group. The average age of businesses among the 300 businesses was found to be almost (9,9) 10 years of age. Additionally, 68 per cent of respondents confirmed that they produced the food they sell onsite. Muzaffar et al. (2009) report that the average age of businesses was seven years of age. Thus, the average age of businesses from these two studies are not significantly different.

Data provided in this section influences the research with a guideline for the respondents for phase two (quantitative) of this study. In phase two, the research conducts a survey with street food retailers of Dhaka, Bangladesh, and specifically those who are operating for a minimum zero (less than one year) to maximum 10 years. Additionally, accumulating information on current retailing types is found to be important.

Faruque et al.'s (2010) study finds that a significant (41.3 per cent) percentage of the street food retailers could only sign their name, with another 25 per cent of respondents not having any formal education. Muzaffar et al.'s (2009) study, however, finds the average formal education of their participants from the street food-selling industry is 3,7 years. Thus, most respondents from both studies had not completed primary education. In addition, participants were asked about food safety and/or food serving training: all (100 per cent) of the 300 participants replied that they had received no training either on food serving or on food safety (Faruque et al., 2010).

Noor (2016) expresses similar concerns regarding lack of education and training. The researcher identifies that inappropriate manufacturing of street food in Bangladesh is increasing gradually. A lack of food safety monitoring and a lack of appropriate supervision, as well as poor knowledge of food hygiene, are identified as the main concerns. Moreover, a lack of food safety training and hygiene practices for street food entrepreneurship also account for the current concerns with food adulteration in Bangladesh. Noor (2016) concludes the paper with the recommendation for knowledge on food hazards, use of chemicals (limits) in food production, routine monitoring and raising of public awareness to be ensured to improve the status of the overall food industry. Similarly, Husain et al. (2015) recommend that a mechanism to educate entrepreneurs will ensure increased productivity. Muzaffar et al. (2009) assume that, with appropriate recognition and support, the industry has tremendous opportunities for improvements.

These studies raise concerns about food safety and adulteration issues. A lack of education and training can have an adverse impact in maintaining food safety standards and lead to involvement in adulteration (Hossain et al., 2008; Muzaffar et al., 2009; Islam and Boksh, 2015).

#### 3.1.2.4 Number of street food retailers and whereabouts of trade

Muzaffar et al.'s (2009) study of street food vendors in Dhaka finds that the street food industry has predominantly been considered as part of the informal sector of Bangladesh, which makes generating a specific number of entrepreneurs operating in this industry problematic. The itinerant nature of these entrepreneurs as they move from one site to another is considered as one of the main reasons why counting the number of entrepreneurs in the informal food sector is a formidable task. As a result, it has been reported that a large part of Dhaka's economy goes unrecognised and is hence referred to as the 'traditional' or 'informal' sector.

This chapter shares data from different sources, which contributes to more confusion about numbers rather than being reassuring. In relation to providing the number of street food entrepreneurs operating in the informal industry, Faruque et al. (2010) share their concerns that official statistics on street food retailers is difficult because this group of entrepreneurs from the informal industry does not pay any tax. According to Ahmed's (2000) report there are as many as 200,000 street food vendors in Dhaka. Moreover, research conducted by Husain et al. (2015) reports an unofficial number of street food vendors within Dhaka of around 250,000, which is accumulated through data from several hawkers' associations (an increase from 90,000 reported in 2005 by same sources) (Husain et al., 2015).

Furthermore, the number is also increasing at a significant rate and the growth of urban population driving an increase in food demand is identified as one of the main reasons. Nonetheless, although the legal status of these entrepreneurs is a cause for concern, their contribution towards creating employment, generating income and supplying to the increasing demand of food complements their existence and importance (Faruque et al., 2010). The popularity of this trend of becoming street food vendors gives the impression that the sector is generating substantial revenue for the entrepreneur; hence this research reviews data available in this regard.

It has been identified that many entrepreneurs are becoming involved in street food businesses due to low investment requirements (Faruque et al., 2010; Husain et al., 2015). Faruque et al.'s (2010) study shows that 40 per cent of entrepreneurs invested up to Taka 20,000 (equivalent to £190) in their business, whereas around 35 per cent of entrepreneurs' daily sales range between Taka 1,001 and 2,000 (equivalent to £9.50 to £19) and 97 per cent of them make a net profit of up to Taka 500 (equivalent to £4.75) daily. However, the study suggests that investment may differ depending on the location that the street food entrepreneur operates from on regular basis. The profit figure found in Faruque et al.'s

study does not imply that the industry generates a substantial amount of revenue for the entrepreneur; however, not having any education or training may leave them with no other alternatives to select from.

### 3.1.2.5 The legal status of street food retailers

Issues with the legal status of street food entrepreneurs in Bangladesh have been introduced in the introduction chapter. Evidencing the claims, Faruque et al. (2010) investigate 300 food entrepreneurs and find that almost 90 per cent of vendors had not been paying any taxes for conducting their businesses and 10 per cent of vendors mentioned paying money to the police, market committee and others. Payments as small as Taka 5 (equivalent to £.048) are reported by Husain et al. (2015) in their study of street food vendors of Dhaka. However, this does not clarify whether making payments to the police or market committee is for their licence or registration. Islam et al. (2015) state that due to a lack of basic infrastructure it is somewhat impossible to bring the large number of street food entrepreneurs under effective control measures. However, Faruque et al. (2010) find that those who said they had licences actually had only a food-selling permit. More than 95 per cent of the street food retailers of their study feel that they should have a licence for their business, whereas in reality almost none actually possess one. The lack of registration mechanism makes the street food industry in Dhaka an illegal activity (Husain et al., 2015).

This discussion of the legal status of the entrepreneurs operating in Bangladesh provides a context within which to investigate the legal status of the respondents of this study. Alongside considering the legal status of the street food entrepreneurs, it is also essential for this research to investigate types of food sold by these street food retailers and especially those who sell their commodities to children.

### 3.1.2.6 Type of food sold and targeted customers

With regard to the target customers of street food retailers in Bangladesh, the WHO (1996) states that school-going children are regular consumers of street food and are at particular risk of health hazards due to food safety concerns, which could be related to adulteration. The WHO report further informs that a substantial number of street food retailers in Bangladesh are selling various colourful and attractive food items targeting school-age children around school-based locations in Dhaka and in other public places in its outskirts. They have also produced a description of some popular items that are commonly retailed and targeted to schoolchildren (see Table 2.2). However, although street food has become an important source of accessible and affordable meals for urban dwellers in many developing countries, including Bangladesh, the items retailed by street food sellers and targeted to the children are not replacing main meals in most cases, particularly in the context of Bangladeshi culture (Al Mamun et al., 2013). Street food items targeted to children are mostly light snacks and drinks (Al Mamun et al., 2013).

Al Mamun et al. (2013) investigate 80 school areas covering 19 school zones in Dhaka to conduct their study. The study finds a list of food items (see Table 2.2) sold by street food entrepreneurs which are popular among children. Unfortunately, Al Mamun et al.'s (2013) study reports that samples tested for these food items give unsatisfactory results, with 100 per cent of samples of Sharbat (mostly fruit juices) found to be contaminated, adulterated and hazardous. It should be noted that the research suggests that fruit juices in Bangladesh are considered the most popular non-alcoholic beverage consumed by people of all age groups (Al Mamun et al., 2013). Food safety of fruit juices in Bangladesh is hindered by applying preservatives (Noor, 2016). A similar study conducted by Yasmin et al. (2015) of vendors selling milk and milk-based products finds more than 50 per cent of the tested food samples to be adulterated or contaminated. Al Mamun et al.'s (2013) study concludes that street foods sold to schoolchildren are indicating public health threats. Regular inspection,

education and training programmes are recommended to improve this scenario (Al Mamun et al., 2013).

Table 3.2: Popular street food sold to children in Bangladesh

Food item	Brief description
Chopoti	Quick street food and one of the main popular hot and sour snacks among the urban people in Bangladesh
Achar (Pickles)	Sweet, sour, and spicy pickled vegetables and green fruits; popular food item among the school children in Bangladesh
Jhalmuri	Popular street food item in Bangladesh, which is basically a mixture of puffed rice and a variety of spices
Vajavuji (piaju/beguni etc)	Piaju (onion lentil fritter) and beguni (fried eggplant slice) are snacks of great demand in Bangladesh and liked by people of all ages
Sharbat	A variety of sweet drinks, usually served chilled

Source: Al Mamun, Rahman and Turin (2013)

Table 3.2 shows certain food items and food adulteration concerns with specific age groups of the population. For instance, with Sharbat, the list does not show that the item is usually consumed by schoolchildren who are below the age of five years as they are mostly supervised on their school journey. Secondly, this chapter also communicates that foods sold to children below five years of age are adequately regulated and represented in the formal food industry of Bangladesh. Hence, the above discussion provides direction for this study to focus on specific respondents at phase two of the research.

The next section addresses the current status of the food industry of Bangladesh, with special attention given to the informal and street food industry selling food to children.

### 3.1.3 Current understanding

Hussain and Leishman (2013) report that in 2013 the food processing sector in Bangladesh was valued at \$2.2 billion and that the industry grew on average 7.7 per cent per annum between fiscal years 2004 to 2005 and 2010 to 2011. They further claim that Bangladesh is classified as a low-income country, with potential to be categorised as a middle-income country by 2021. Hussain and Leishman elaborate that with a continuous fast growth in GDP in the country, Bangladesh has a large growing middle-class population of over 30 million people and for a relatively large population of the country the food industry is considered to

be small. The fast growth of GDP brings much potential for the sector and has attracted entrepreneurs to invest in and contribute towards the rapid growth of the food industry (Hussain and Leishman, 2013).

It is important to note that the food processing sector in Bangladesh industry statistic of \$2.2 billion is confined to the formal sector of the country's economy. In the informal food sector, businesses are conducted or operated in an unstable, marginal economic and irregular form. They fall into the self-employed category, but there is no systematic documentation on the street food entrepreneurs in Bangladesh (Khairuzzaman et al., 2014). The total number of street food entrepreneurs' scale of business is still unknown. As a result, their contribution to the economy is also not known. After rikshaws pulling, street food entrepreneurship is considered the second largest employment opportunity for the urban poor population of Bangladesh. Approximately 300,000 street food entrepreneurs operate within Dhaka every day (Khairuzzaman et al., 2014).

The rapid growth of urbanisation in Bangladesh also plays an influential role in making street food entrepreneurship a popular sector for businesses with limited investments (Khairuzzaman et al., 2014). Additionally, Khairuzzaman et al. report that the rapid urbanisation and development of the street food industry is having significant influence on the food habit of urban people, where the majority of the population spends most of their time outside the home. Khairuzzaman et al. inform that customer surveys undertaken in 2006 reveal that the main consumers of street foods are other members of the informal sector. This is followed by students and children, housewives and office workers. The study finds, though, that street food entrepreneurship has become increasingly popular for the low-income category in the urban area, but the consumers represent all income groups from society (Khairuzzaman et al., 2014).

Hussain and Leishman (2013) mention that the growing food processing industry in Bangladesh encounters sensitive concerns regarding quality and standard of products, where the quality of the finished product is commonly poor due to the unavailability of high-quality raw material and trained manpower (food handlers). Furthermore, to maintain food safety standards and hygiene throughout the entire process (from accessing raw materials to supplying the finished product to the market), there is no organised and systematic effort from the industry itself, or from government regulatory bodies (Hussain and Leishman, 2013). Hussain and Leishman claim that a lack of research and development (R&D) is also evident, which is a barrier to bringing safe and new foods to the market. Currently the majority of the Bangladesh food industry is unable to meet the food standards and safety requirements of the international market (Hussain and Leishman, 2013).

Research focused on entrepreneurs, especially small and medium-sized firms in the food industry of Bangladesh, states that firms in the industry are faced with numerous complex challenges that relate to innovation. One of the unique challenges faced by small and medium-sized firms is adapting to new innovation for the food industry's specific needs. The research also recommends that collaboration, adapting to new innovation and considering social responsibility strategies could be beneficial for the industry and firms operating in the industry (Saguy and Sirotinskaya, 2014).

Alongside the quality and standard of food products in the market, another major concern is the business ethics of the entrepreneurs of the industry. Pesticide and chemical contamination, inappropriate production technologies, transportation shortfalls and food adulteration at different levels (producer, importer, wholesaler, seller and retailer) of the food chain process are reported regularly (Hussain and Leishman, 2013; Hossain, 2011). A missing link of the quality control system is badly required in the whole food chain system of Bangladesh (Hussain and Leishman, 2013).

Hossain et al.'s (2008) study among food consumers, producers and sellers in Bangladesh shows that 94 per cent of consumers are aware that various foods and foodstuffs in Bangladesh contain hazardous chemicals. Some 96 per cent of these consumers are aware that these adulterated foods and foodstuffs are harmful to their health. Huda et al. (2009) find this food adulteration a major problem, especially in the urban cities of Bangladesh, and they raise major health concerns for urban citizens of the nation.

In Bangladesh, social media, daily newspapers and television channels consistently show that various hazardous chemicals (e.g. sodium cyclamate, calcium carbide, formalin and cyanide, etc.) are mixed with or added to foods and foodstuffs and these chemicals are extremely dangerous to humans and can be particularly lethal for children. However, determining the best way to influence customers to consume more healthy foods is challenging (Huda et al., 2009).

Huda et al. (2009) state that mobile courts (law enforcement authorities for food hazards) reveal that yoghurt or other traditional sweets are not what they appear. In a survey conducted in February 2005, officials found that 100 per cent of examined samples of rashogolla, kalojaam, yoghurts and shandesh (popular sweetmeats in the country) are adulterated. According to the Pure Food Ordinance (PFO) 1959, at least 10 per cent milk fat is mandatory in sweetmeats. But in most cases, the percentage of milk fat is not more than 5 per cent. In most cases, sweetmeat producers or bakeries use toxic colours instead of food colours, which are carcinogens and may cause diseases like cancer and kidney damage, if regularly ingested (Huda et al., 2009).

Mridha (2011) notes that there are 2.2 million casualties worldwide affected by food and waterborne diseases; 1.9 million among them are children (reported by WHO in 2008). Over 500 hospital visits each day were recorded in Bangladesh in 2010 (Mridha, 2011). In 2012, 14 children were reported killed after consuming litchis (a tropical fruit) from a garden in

Bangladesh. When samples of these litchis were examined, it was found that the litchis contained samples of dangerous pesticides which are used for improved growth of the fruit and also for pest control purposes (Anam, 2012).

It is evident that the current regulations, media coverage and other approaches against food adulteration have not been successful in reducing the casualty rate and policies specifically targeted towards food sold to children have not been developed.

In the process of the research and framework development, this research seeks support from existing NGOs in Bangladesh who are already working for food safety in the country. Records show there are five partnering NGOs currently working with the Bangladesh Food Safety Network (BFSN) formed in 2010. The partner NGOs of the BFSN are Hunger Free World (HFW), the Consumer Association of Bangladesh (CAB), B-Safe, UBINIG and SHISUK. All these NGOs have already been working in the field of food safety in their individual capacity; however, specific focus on food sold to children is not yet evident in the operation of named NGOs. The main aim of BFSN is to strengthen food safety awareness throughout the country through a GO–NGO collaboration model and to establish a ‘food safety culture’ in society. Furthermore, operations and projects of BFSN and partnering NGOs are supported by the previous FAO Food Safety Project funded by the European Union (Food and Agriculture Organization of the United Nations, 2014).

#### 3.1.4 Concerns with the sector selling food to children

Alongside adulteration concerns, hygiene aspects of street food have become a major concern in Bangladesh recently (Khairuzzaman et al., 2014). With the increase of street food demands, the country is also experiencing a rise in street food entrepreneurship. The majority of these entrepreneurs are failing to meet food standards expectations; the environment and surroundings of the location from where they are operating their business is one of the main reasons for their failure. However, the literature suggests that by

improving awareness of these entrepreneurs these concerns can be mitigated (Khairuzzaman et al., 2014). In the following sections the research communicates some major concerns with the sector selling food to children in Bangladesh.

#### 3.1.4.1 Microbiological safety

According to Khairuzzaman et al. (2014), globalisation of the food market influences the rise of foodborne diseases in the developing countries. Mostly for globalisation, food entrepreneurs are importing materials from diverse locations; unfortunately, climate change and standard of the raw material are mostly ignored. Changes in food habits or consumption patterns among the public are also evident. Convenient food is becoming a preferred option among consumers. Due to food's biological nature, it supports the growth of micro-organisms and foodborne diseases easily. It has been reported that more than 250 different types of bacteria, viruses, parasites, metals and toxic components are associated with foodborne diseases in humans, including children (Khairuzzaman et al., 2014).

In Bangladesh, as well as in many other developing countries, there is no database to recognise concerns effectively and more specifically targeting street food entrepreneurs. Therefore, in recent times laboratories started examining street food samples in Bangladesh. The samples are taken from food items such as jhal-muri, chapati, singara, chola, jilapi, chittoi pitha, jar drinks, tehari, juices and pickles. All these food items are extremely popular among children, particularly those who are school-age. Unfortunately, the tests find evidence of toxic components of some sort in each of the food samples. These findings also reflect poor microbiological standards of the school-based street food entrepreneurs, indicating a health threat to the schoolchildren of Dhaka (Khairuzzaman et al., 2014).

#### 3.1.4.2 Chemical safety

Textile colours, preservatives, pesticides and other non-food chemical additives are found in the street foods of Bangladesh (Khairuzzaman et al., 2014). Appropriate use of spices, nitrates, sugar and salt is an important mechanism of preventing food spoilage. Street food entrepreneurs in Bangladesh aim to keep prices low to attract customers, mostly from low economic status and children who may not have access to more expensive food items. As a result, to keep prices low, they end up purchasing cheap ingredients containing chemical additives which are not suitable for human consumption and are from unauthorised suppliers (Khairuzzaman et al., 2014).

#### 3.1.4.3 Personal hygiene

Due to poor hygiene practices, consuming food from street food entrepreneurs poses a considerable risk to children's and the general public's health. In most cases, the entrepreneurs do not have appropriate and adequate washing facilities (Khairuzzaman et al., 2014). The majority wash their hands in the same bucket where they wash their utensils. Many of these entrepreneurs do not take a bath or shower before they start working with food for children; many of them sleep on their vending sites. However, some entrepreneurs are aware of hygiene requirements and are trying to maintain personal hygiene while working with food (Khairuzzaman et al., 2014).

#### 3.1.4.4 Environmental hygiene

Inadequate and inappropriate refuse disposal facilities lead to the accumulation of large amounts of refuse at the site where food entrepreneurs are operating. This leads to an increase in the pest population, which eventually compromises food quality and standards (Khairuzzaman et al., 2014). Street food vending sites have not been considered when town plans were prepared; as a result, regular refuse collection from these street food entrepreneurs is also absent (Khairuzzaman et al., 2014).

Discussions in the above sections generate a series of questions on whether these street food entrepreneurs who are supplying food to the children have undergone any training, or if they have adequate knowledge, education and awareness of food safety. As a result, this study investigates these issues with the entrepreneurs participating in phase two.

Subsequent to the discussion of the contexts relating to street food entrepreneurship in Bangladesh, this chapter investigates the available literature on food adulteration in the developing economy of Bangladesh.

### **3.2 Food adulteration in Bangladesh: Food sold to children**

Adulterated or unsafe foods significantly contribute to malnutrition, which may permanently handicap people and physical development, affecting development of brain cells, particularly in children. The UN Food and Agriculture Organization (UNFAO) states in their recent report that malnutrition rates in Bangladesh are among the highest in the world. Furthermore, the WHO report confirms that contaminated foodstuffs cause premature deaths of at least 3 million children under five years of age worldwide (FAO, 2010).

In a study on weaning food, Motarjemi et al. (1993) communicate that weaning foods prepared under unhygienic conditions are frequently heavily contaminated with pathogenic agents and are a major risk factor in the transmission of diseases, especially diarrhoeal diseases. Motarjemi et al. (1993) mention that 41 per cent of samples of food items fed to children of weaning age in Bangladesh contain E. coli: an alarming statistic, although the main reasons behind these contamination cases are yet to be identified (cannot be sure whether the contamination is intentional or unintentional). Suggestions can be made with regard to these findings about how to maintain a healthy and hygienic environment/condition in food preparation areas, so that the chances of food being

contaminated unintentionally can be reduced. However, as the study was published in 1993, it is possible that the current state of this industry can be different and improved.

Finally, no current research evidence is found on food adulteration in the street food sold to children; most recent research dates back to the early 1990s. Furthermore, research into child food adulteration has tended to use a similar methodology of observation, whereas a survey method could provide in-depth knowledge (and exploratory research and descriptive data) of the status of the industry. Using observation methods, researchers heavily depend on the respondents to volunteer the information required and, in many cases, when respondents become aware that they are being observed, they will become cautious with their activities (Saunders et al., 2016). These overall statuses demand action, research, to identify current scenarios of food adulteration in the industry selling street food to children in Bangladesh.

The following section presents evidence of reported cases of adulteration practices from Bangladesh.

### **3.3 Food adulteration process in Bangladesh**

Evidence from multiple newspaper articles is communicated in this thesis, which indicates the seriousness of the problem of food adulteration in Bangladesh. In the same vein, Hossain (2008) states that at present it is difficult to say which foods or food items contain no harmful chemicals. It is such an alarming condition that the wealthy, educated and cautious citizens of the country are also obligated to consume adulterated foodstuffs.

At present it is argued that almost every sector of the food industry, including the sector selling food to children, uses hazardous chemicals. Fruits, vegetables, sweetmeats, fish, milk, bakery products, cereals, puffed rice, soybean oil, butter oil, mustard oil and other foods are adulterated in different ways. Different chemicals are used at the following four different

levels to adulterate food in Bangladesh: importer, producer, wholesaler and retailer (Hossain, 2011).

Hossain et al. (2008) suggest a number of products that are adulterated at the importer level, such as biscuits, flour, fruits, bread, oil, soft drinks and condensed milk. At producer level, popular food items to be adulterated are bakery products, chanachur (fried nuts and other salted and spiced foods), noodles, oils, different spices and others. It is reported to be a common practice to replace food extracts and ingredients with less expensive toxic products that are similar in appearance. For instance, instead of original fruit substances, fruit juices are produced with artificial and prohibited ingredients. Harmful substances are added to chilli and turmeric powder to brighten them and to make chilli powder spicier. Less expensive and harmful sodium cyclamate is used as a substitute for sugar, especially in preparing soft drinks and bakery products. Burnt engine oil (e.g. Mobil) is used to fry chanachur.

Additionally, Hossain et al.'s (2008) study reports that calcium carbide, formalin and low-cost colourings are used by wholesalers in fruits, vegetables and fish. Subsequently restaurants, confectioners, food shops, supermarkets and other retailers, including medicine shops, adulterate their products. It is reported that among many milk producers it is a common practice to add formalin to their milk to preserve it. Furthermore, some restaurants and hotels use dead chickens in preparing their food items and rotten mangoes are used in fruit juice preparation, with fruit juice being extremely popular among children (Hossain et al., 2008).

As a comparison with food adulteration practices in Bangladesh, the following section presents food adulteration in the west and developed economies.

### **3.4 Food adulteration in the west**

While it is apparent in the literature that food adulteration in Bangladesh and several other developing countries is a major concern and requires attention, the literature provides evidence that such a crisis is also evident in the west. Countries such as the UK faced the problem of food adulteration in the early 19th century (Hossain et al., 2008). Legislation failed to eliminate this problem in the late 1930s and this problem persisted for a prolonged period. Eventually, through improving the status of consumers in society, consumer movements (authorities and organisations) and advocacy with ethical and ecological issues (in the 1980s) gained strength in western countries (Hossain et al., 2008).

Moreover, it has been reported that after World War II attention was driven towards consumer protection. Subsequently, consumer legislation organisations and authorities emerged, and thus the consumer movement in western countries strengthened (Trentmann, 2006). Although the fourth or alternative wave of consumerism (Gabriel and Lang, 2006) has emerged with a strong emphasis on ethical and ecological issues since the 1980s, a number of food scares, such as BSE-infected meat and Salmonella bacteria in eggs in the United Kingdom in the 1990s, reveal the weaknesses of regulation and consumer protection.

The following section discusses use of formal institutions (Acts) relating to food adulteration in Bangladesh.

### **3.5 Food adulteration Acts and implication in Bangladesh**

The government of Bangladesh (GoB) is aware of the endemic problem of food adulteration and has introduced laws and regulatory bodies to combat its onslaught, but unfortunately success is yet to be achieved. Notably, the GoB has largely failed to draft useful laws, has noticeably failed to enforce the existing laws, and regulators have completely failed to detect and penalise acts of adulteration. It has also been reported that, although in

Bangladesh a number of fragmented legislations are in place, these do not fully reflect international standards and their enforcement seems ineffective (Solaiman and Ali, 2014).

Moreover, the food adulteration Act in Bangladesh is antiquated, which lowers the effectiveness of law against the situation and thus the ill-practitioners are getting away with their crimes (Rahman and Rahman, 2012). Currently the law enforcement authority for food standards gives a drive to identify punishable offences and file cases under the Bangladesh Standard Testing Institute (BSTI) Ordinance 1985 and Pure Food Ordinance 2005 (Huda et al., 2009).

A recent study on the policy framework of food safety in Bangladesh has identified that the government revised the food safety regulations, but the policy framework has not succeeded due to a lack of proper policymaking conceptualisation. Furthermore, the study identifies some key issues within the existing policy framework and the issues have become an obstacle in the effectiveness and efficiency of the structure. The issues are (Islam and Boksh, 2015):

1. Lack of civil society involvement in policy formulation;
2. Lack of manpower and modern equipment;
3. Lack of co-ordination among the departments;
4. Lack of methodological approach (including training, caution notice, improvement notice) in policy implementation; and
5. Lack of trust and understanding among the stakeholders.

A study conducted by the Ministry of Health and Family Welfare (MoHFW) in Bangladesh provides statistics confirming that the food adulteration situation has not improved with the implications of law and regulatory body as expected and food adulteration remains a major concern to present days. The MHFA statistics presented in Table 3.3 provide specific details of the number of food samples tested between 2001 and 2009.

Table 3.3: Food samples tested between 2001 and 2009

Year	Total samples	Genuine		Adulterated	
		No.	%	No.	%
2001	3280	1692	51.6%	1588	48.4%
2002	4300	2110	49.0%	2190	51.0%
2003	5120	2515	49.1%	2605	50.9%
2004	4413	2214	52.0%	2119	48.0%
2005	6337	3200	50.5%	3137	49.5%
2006	2779	1405	50.6%	1374	49.4%
2007	5992	3488	58.2%	2504	41.8%
2008	8734	5066	58.0%	3668	42.0%
2009	6338	3356	52.9%	2982	47.1%

(Source: MHFA, presented by Solaiman and Ali, 2014)

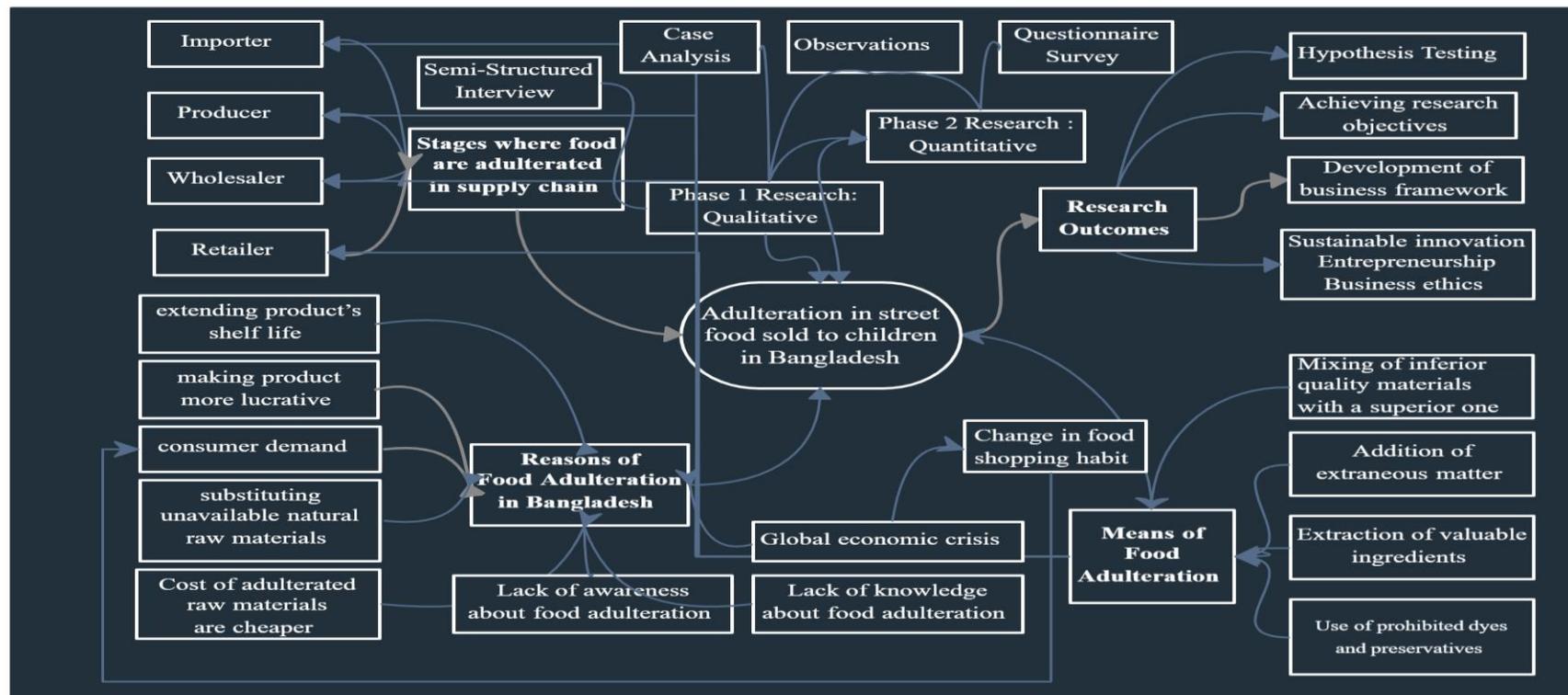
Table 3.3 shows the MoHFW increased sample size since 2001. Unfortunately, even after taking a larger sample size, the ratio of genuine to adulterated food remains almost identical. The numbers confirm claims that concerns with food adulteration practices in Bangladesh have not been managed or controlled by the regulatory bodies.

The discussions in the literature review and the context chapter are strongly influenced by the references made in the articles and themes of this research. Facilitating the process, this research develops a mind map, presented in the next section. The mind map is followed by a conceptual framework, demonstrating the concepts and contexts where the entrepreneurs from the industry selling street food to children in Dhaka, Bangladesh operate.

### 3.6 Mind map of the research

The literature review and arguments in the context chapter capitalise on the dynamic nature of the mind map (Figure 3.1). In the instances when suggestions to explore new avenues are made by the literature and in the context of Bangladesh, the mind map is revised. The mind map presented in Figure 3.1 provides brief information on the literary areas this research investigates.

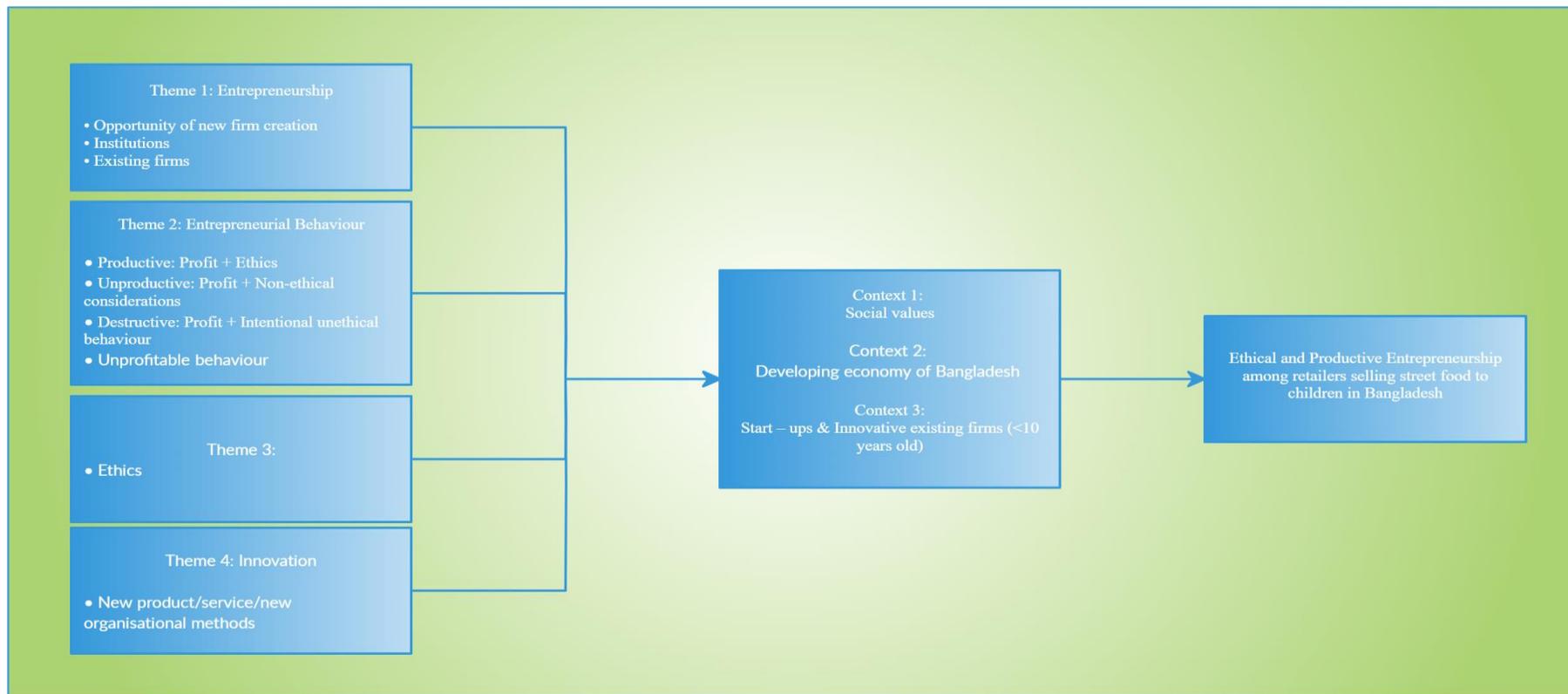
Figure 3.1: Mind map of the research



### 3.7 Conceptual framework

The literature review and context of Bangladesh guides this research to generate a conceptual framework (Figure 3.2) investigating four themes and three contexts where the street food industry operates. The research assumes that investigating these themes will enable addressing the research objectives. Theme one (entrepreneurship) reviews the business environment of the industry and businesses operating within it. Theme two reviews entrepreneurial behaviours of businesspeople. Theme three investigates ethics, taking institutional underpinnings into consideration, and innovative approaches are reviewed under Theme four. The four themes exist within three contexts within which street food retailers operate: 1) social values; 2) the developing economy of Bangladesh; and 3) start-ups and innovative existing firms.

Figure 3.2: Conceptual framework



### **3.8 Chapter conclusion**

The discussions from the literature review and context chapter enhance the literary knowledge of the researcher relating to the overall concept of entrepreneurship, food adulteration and the crises within street food entrepreneurship in Bangladesh, where children are targeted by entrepreneurs. Furthermore, to investigate the phenomenon of the adulteration of street food, this research develops four objectives and three research questions, which are introduced in chapter one.

The next chapter, the methodology, outlines the methodological approaches this research adopts in investigating the street food entrepreneurship phenomenon. The chapter introduces the instruments this study uses to collect data and the tools used for managing and analysing primary data.

## Chapter four: Research methodology

### Introduction

The existing research on street food has focused mainly on socio-economic and environmental health issues associated with the sector. There is a paucity of research focusing on sales of street food to children. This study aims to fill that gap by adopting a mixed method research approach. A qualitative phase (phase one) is followed by a quantitative phase (phase two) in a sequential exploratory research design, as postulated by Saunders et al. (2019, p. 171). The mixed method research design is selected to elicit a holistic understanding of entrepreneurial behaviour in the industry selling street food to children in Dhaka, Bangladesh. The approach encompasses the views of all key actors including academics, nutritionists, officials from government authorities, NGOs, customers involved in phase one and street vendors in phase two. The contexts of the conceptual framework are in the core of data collection tools in each phase; however, other themes arose naturally during the research process and particular attention is given to street food entrepreneurs that emerged during the process.

This chapter comprises four main sections. Section one demonstrates the development and construction of the research instruments, which includes the consideration and construction of semi-structured interviews for phase one and questionnaire development for phase two. Section two discusses the mechanisms and practical implications of the methodology. Procedures of sampling, collection of data and techniques used in analysing statistical data, philosophy of data, approach and strategy are considered in this section. Section three outlines ethical considerations and issues related to working within the objectives, context and geographical location of the study. The chapter concludes (section four) with a brief description of the data analysis tools administered in the research. The tools are used for managing and assisting the analysis of both qualitative and quantitative data.

The first section introduces a debate on research philosophies as well as the rationale for the philosophical approach this research utilises.

#### **4.1 Ontology, epistemology and research philosophy**

According to Maylor et al. (2017, pp. 102–107), a research philosophy describes a theory of research. The description can summarise the underlying assumption using two components of the research philosophy: first, the research ontology which addresses what there is to know or the ‘nature of reality’; and secondly, the research epistemology which addresses what the research can know or the ‘nature of knowledge’. Dudovskiy (2016) suggests that the development of an appropriate research methodology is strongly dependent on the philosophy the research adopts.

Elaborating further on research ontology, Qureshi (2020) and Berryman (2019) state that ontology answers questions such as ‘What is reality?’ and/or ‘What shapes reality?’ and/or ‘What is the relationship between the components that shape reality?’ While answering these question(s), ontology helps with understanding the problem and identifying possible solutions for that problem. Qureshi (2020) says there are many ontological beliefs a researcher may consider; however, Qureshi highlights three main ontological beliefs: 1) Singularity, suggesting that there is only one reality for a specific situation and there is only one set of solutions for this reality; 2) Multiple reality, suggesting that there are multiple realities for a situation and there can be multiple solutions for the reality; and 3) One or many, suggesting there can be either one or more realities and there can be one or more solutions for the reality.

Hothersall (2019) defines epistemology as the way we receive knowledge and what we know about reality; or, in simpler terms, how a researcher collects knowledge about a reality. Like ontology, epistemology can also relate to multiple beliefs (Qureshi, 2020), such as: 1) Knowledge (i.e. reality) can be measured using scientific rules, reliable tools and

design; 2) Knowledge is not measurable but can be interpreted or explained; and 3) Knowledge can be either measured or interpreted and researcher can use the best suitable tool as appropriate.

Finally, Qureshi (2020), Berryman (2019) and Broadway-Horner (2018) confirm that the research philosophy is shaped by the ontological and epistemological beliefs of the researcher and the combination of these guides the research approach.

**Figure 4.1: Ontology + Epistemology = Research philosophy**

<i>Ontological belief</i>		<i>Epistemological belief</i>		<i>Research philosophy</i>
<b>Singular reality</b>	+	Examine using established design and tools	=	Positivism
<b>Multiple realities</b>	+	Examine using interpretive approach	=	Constructivism/Interpretivism
<b>Singular or Multiple</b>	+	Examine using best tool	=	Pragmatism

(Adopted from: Qureshi, 2020)

Qureshi (2020) suggests (Figure 4.1) that a combination of singular reality and measuring that reality with an established design and tool will guide the research towards a positivist philosophy. However, a combination of multiple realities, when the realities are not measurable but can be interpreted, will guide the research towards an interpretive or constructivist philosophy. And for circumstances when reality can be either singular or multiple, and rather than using a specific tool to measure or interpret the reality the researcher can use the best tool as appropriate, the researcher can be guided towards a pragmatic philosophical approach. The next section elaborates the individual philosophical approaches this research considers.

### 4.1.1 Constructivist/interpretive approach

The interpretive philosophy enables a researcher to understand the fundamental meanings associated with the research that they intend to investigate through integrating human interest with the study. The approach recommends that research be involved in the everyday activities that the organisation undertakes, rather than changing things for the purpose of investigation (Saunders et al., 2019, p. 140; Kelemen and Rumens, 2008). The interpretive philosophy aids the qualitative approach of a study, with qualitative data being collected through interviews in many cases. The interpretation allows the researcher to elaborate on the topic through profound knowledge acquisition; thus the approach is also known as an elaboration model (Babbie, 2014, p. 90).

This approach allows the researcher to maintain close contact with participants and helps the researcher to interpret their comments and link outcomes with the research objectives easily (Tapsell and Woods, 2010; Moret et al., 2007). Moreover, the interpretive approach helps the researcher to understand and investigate a complex social problem and/or issue easily (Silverman, 2006).

The interpretive research approach is adopted for phase one (qualitative) of this research, being a philosophy that is appropriate for qualitative data collection. The participants from phase one are representatives of formal institutions and provide insight into the overall food industry, with special attention given to formal versus informal food industries. Hence, the interpretive philosophy facilitates a clear understanding of the issues and leads to design of a research instrument (questionnaire) for phase two of the data collection.

The next section focuses on providing details of the positivist approach this research uses.

### 4.1.2 Positivist approach

Regarding the positivist philosophy, Henning et al. (2004) suggest that, at the ontological level, knowledge is objective and quantifiable. Positivist researchers adopt scientific

methods and structure the knowledge generation process with quantification enhancing accuracy in the description of variables and their relationships. Gephart (2004) supports this view, stating that subjectivity needs to replace objectivity in the process of scientific enquiry. Therefore, the positivist philosophy focuses on experimental and quantitative methods complementing qualitative methods to gain broader information in addition to readily measured variables. The main mechanism for this approach is through staying independent from or of the research (Dudovskiy, 2016; Sekaran and Bougie, 2016, pp. 17–23). Applying a positivist approach, this study remains separated from the environment of the research. With an interpretive philosophy the researcher is expected to gain a deeper understanding of the research context, whereas in positivist research the researcher is expected to form an explanation of the scenario rather than understanding. All personal bias is excluded using a positivist approach, which may influence the outcome of the research. Furthermore, through collecting and producing quantitative data the positivist research becomes measurable (Sekaran and Bougie, 2016, pp. 24–30).

#### 4.1.3 Critical realism (CR)

The debate on research philosophies introduced the concept of post-positivism (PP), which sits on the spectrum between positivism and interpretivism (Ryan, 2019; Phillips and Burbules, 2000). Bhaskar (1998) suggests that, depending on the focus of the research, some researchers would set their principles closely with positivism, while others would take a more balanced approach. Traditionally, PP tends to reject both positivist and interpretivist approaches, with its core principles aligning with those of realism (Ryan, 2019). Ryan suggests that Bhaskar's philosophy of critical realism is closely associated with PP's ontological stance. Bhaskar's (2008) critical realism consists of six core principles.

The first principle relates to the transitive and intransitive objects of science. Bhaskar proposes two dimensions to negotiate the conflicting views of positivism and interpretivism

(Danermark et al., 1997). Bhaskar (2008) argues that there is always a human element in the production of knowledge in the human world; without some form of human activity or enquiry science cannot exist. The dimensions are (Danermark et al., 1997): 1) intransitive, referring to the knowledge of the objects that we study, whereas these objects would exist regardless of human experimentation or observation (i.e. gravity); and 2) transitive, referring to the knowledge that we create with human intervention (i.e. research that involves people). This study attempts to generate transitive knowledge with the involvement of people at both phases of data collection. Phase one involves semi-structured interviews (qualitative) with industry experts; and phase two involves questionnaire surveys (quantitative) with street food retailers operating in Dhaka, Bangladesh.

The second principle relates to objects, events, structures, mechanisms, causal powers and tendencies. Reviewing Bhaskar's CR second principle, Ryan (2019) states that, in positivism, establishing associations and cause-effect are viewed as important. However, investigating realism with human involvement is not that simple. CR requires studies to examine what happens, why, when and in what circumstance. Objectives of this research are designed to make inquiries through events or outcomes, with the aim to generate a 'most likely' explanation of reality based on the guidance.

The third principle is that reality is stratified. Bhaskar (2008) proposes three domains of reality: empirical, actual and real. Observations in the empirical domain and examinations, explanations and theories in the actual domain reflect the real domain. However, Bhaskar (2008) claims we cannot possibly see 'everything'. The empirical nature of this study observes the objects under enquiry.

The fourth principle is that truth is fallible. Through this principle, Bhaskar claims that truth can be proven incorrect and there is no certainty that truth is always correct (Ryan, 2019; Phillips and Burbules, 2000). Moreover, Elgin (1996) argues that research may fail to find

conclusions, even with most rigorous empirical methods, and may produce undetected errors in some cases. Cautious approach of this research acknowledges the possibilities of fallibilism.

The fifth principle relates to modified objectivity. According to Ryan (2019) and Danermark et al. (1997), post-positivists acknowledge that knowledge should be obtained with the best available evidence at the time of enquiry and value objectivity with the notion that this can never be achieved completely because it is impossible to completely remove or control external influences on social 'objects' and hence to consider modifying objectivity. The phase one data analysis of this study shifts the focus towards street food entrepreneurship at phase two, whereas the initial objective of the study was to investigate entrepreneurial behaviour among all child food retailers.

The sixth principle is the open and closed system. Bhaskar (2008) suggests the concept of open and closed systems in which research takes place. Regardless of human interactions, an object can be completely controlled in a closed system, whereas human factors and contexts are the uncontrollable factors in an open system. This research is executed in an open system.

Considering the discussions on interpretivism, positivism and critical realism, this research uses a combination of interpretive and positivist approaches in investigating its research objectives and acknowledges the influence of critical realism in its execution. The next section provides details of the pragmatic philosophy this study adopts.

#### 4.1.4 Pragmatic approach (mixed method)

According to Haq (2014), social research has traditionally depended on two paradigms: the interpretive or constructivist paradigm and the functional or scientific (positivist) paradigm. These paradigms can be differentiated based on their ontological (nature of knowledge or reality) and epistemological (relationship between the knower and the knowable) positions,

methodological approaches (how to access the knowledge) and ethical standards (moral principles guiding the research) (Haq, 2014; Bazeley, 2002). Those who follow the constructivist paradigm tend to embrace qualitative tools and techniques of data collection and analysis, whereas the scientific paradigm leads to adoption of quantitative research methods.

Due to continued differences in their philosophical underpinnings, division between the two fundamental paradigms has increased over time and has paved the way for a third approach known as mixed methods. The justification of using mixed methods in social research is based on the pragmatic philosophical position and elucidates that social phenomena can be better understood by using both qualitative and quantitative data collection and analysis methods in the same research (Creswell and Creswell, 2018; Haq, 2014). On pragmatism, Misak (2016) cites Peirce as one of the founders of pragmatism and suggests that the pragmatism of Peirce may offer researchers the wherewithal to make good sense of ethical and political enquiry aimed at truth. The context of this research makes a good case to consider Peirce's pragmatism in investigating the sensitive phenomena this research examines.

According to Burch (2021), Peirce is arguably best known for the first two articles in a series of six that were originally collectively published in *Popular Science Monthly* from November 1877 to August 1878. The first is titled 'The fixation of belief' and the second 'How to make our ideas clear'. In the second of these papers Peirce defended a 'pragmatic' notion of clear concepts. Burch (2021) states that, according to Peirce, philosophy must begin wherever it happens to be at the moment, and not at some supposed ideal foundation. As long as researchers follow the scientific method, no matter where they begin, their results will eventually converge toward the same outcome. The pragmatic philosophical concept means

that, despite superficial appearances, two theories with the same empirical content must have the same meaning.

Peirce's understanding of scientific methods, then, is not very different from today's idea of scientific methods (Burch, 2021; Wagenmakers et al., 2018; Ambrosio, 2016). For Peirce (cited by Burch, 2021), the scientific method involves three phases: 1) abduction (making estimations or creating hypotheses); 2) deduction (inferring what should be the case if the hypotheses are proven); and 3) induction (the testing of hypotheses or estimation), whereas the scientific method today can be defined by constructing hypotheses, originating consequences from these hypotheses and then testing these hypotheses (Burch, 2021; Ambrosio, 2016). Burch (2021) states that Peirce increasingly came to understand his three types of logical implication as being phases of the scientific method. For instance, first, Peirce defined abduction as provisional acceptance of an explanatory hypothesis for the purpose of testing it. Abduction is something that clarifies or normalises some information that has previously been 'surprising', in the sense that, given our state of knowledge, we would not have routinely expected it. Secondly, for Peirce, deduction means the drawing of conclusions as to what observable phenomena should be expected if the hypothesis is correct. And finally, induction means the entire process of experimentation and interpretation performed for the testing of the hypothesis.

In the case of this research, the literature review and context chapter enable the development of an initial hypothesis (i.e. abduction) through development of research objectives, research questions and a conceptual framework. At phase one of data collection and subsequent analysis, this study examines the assumptions made through the literature review and context. Phase one enables this study to gain clarity on vague or poorly explained phenomena in the available literature and reviews whether the assumptions made are true of street food retailers operating within Dhaka, Bangladesh (i.e. deduction).

Finally, through phase two data collection and analysis, this research tests the findings of phase one with street food retailers to confirm whether the assumptions and findings are correct (i.e. induction).

However, Nicholson (2013) argues that 'pragmatism should not be interpreted as a "set of doctrines or even a method"' (p. 254). Nicholson defines pragmatism as 'a flexible habit of mind that is not committed to any ideology or philosophical system and is compatible with a variety of philosophical approaches' (p. 249).

Jenkins (2017) claims that William James identified two types of 'human temperament': 'tough-minded' (i.e. empiricist; going by 'facts') and 'tender-minded' (i.e. rationalistic; going by 'principles') and Nicholson (2013) suggests that the 'pragmatic temperament' enables a person to switch from being either flexible-minded or firm-minded in accordance with the situation. It was difficult for this research to adopt only a tender or tough-minded approach, due to the unavailability of depth information relating the issue this research investigates. Henceforth a pragmatic approach allows this research to accumulate in-depth information in phase one and test that information at phase two to establish facts.

In pragmatic philosophy, research questions and objectives are the most important determinant of the research philosophy (Dudovskiy, 2016; Sekaran and Bougie, 2016). Considering the research questions and objectives, pragmatics can combine both positivist and interpretive positions within the scope of a single research study. Moreover, Misak (2016) suggests Peirce as one of the founders of pragmatism and that the pragmatism of C.S. Peirce, C.I. Lewis and Frank Ramsey might offer a research study the wherewithal in making good sense of ethical and/or political enquiry aimed at truth. Depew (2021) adds Peirce's 'pragmaticism' as a form of realism. The pragmatic approach to research involves using the method which appears best suited to the research problem. Hence pragmatic researchers allow themselves the freedom to use any of the methods, procedures and

techniques typically associated with qualitative or quantitative research. Moreover, several studies utilise qualitative and quantitative methods simultaneously in a pragmatic approach. Similarly, in some research, use of one approach first and then the next is evidenced, where the second part of the study perhaps expands on the results of the first. Alzheimer Europe (2009) gives an example that a qualitative study involving in-depth interviews or focus group discussions might serve to obtain information which will then be used to contribute towards the development of an experimental measure or attitude scale, the results of which will be analysed statistically. Moreover, mixing different approaches has the advantages of enabling triangulation. Triangulation is a common feature of mixed methods studies (Bell et al., 2018, pp. 434–452; Denscombe, 2014; Dudovskiy, 2017).

Through pragmatic approach this research uses both qualitative and quantitative research methods and the next section introduces the methods under research design underpinnings.

## 4.2 Research design

Saunders et al. (2019, pp. 165–200) suggest that research design is the general infrastructure of data collection in a study. Saunders et al. (2019, p. 169) proposes multiple research designs for adoption as a methodological choice for a study: quantitative, qualitative or mixed methods. For better understanding, the methodological choices are presented in a graphical illustration in Figure 4.1. This section addresses qualitative research design followed by discussions on quantitative and mixed method research design.

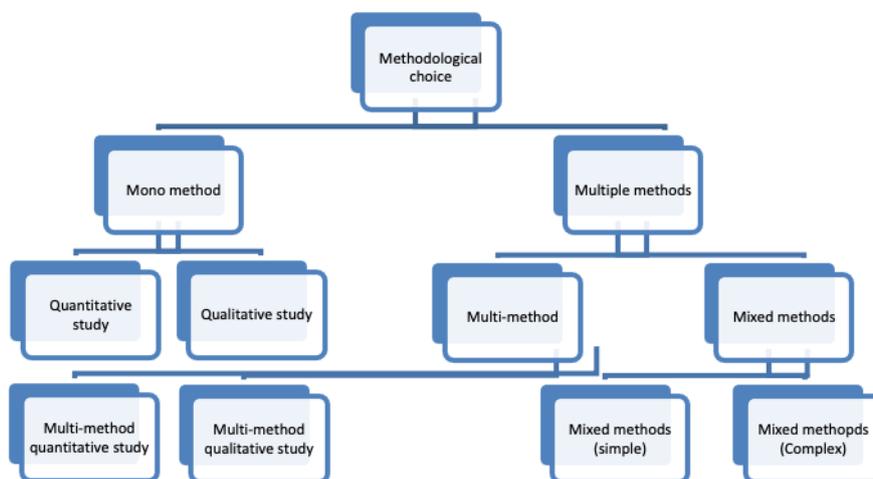
### 4.2.1 Qualitative design

Miles et al. (2014) and Saunders et al. (2019, pp. 168–169) associate qualitative research with interpretative study or philosophy, as the design interprets or makes sense of subjective and socially constructed meanings regarding the topic or phenomenon the research investigates. In researching the phenomenon, the study may use a single data

collection technique, for instance, semi-structured interview and corresponding qualitative analytical procedures. This approach of qualitative research design is categorised as a mono method qualitative study (Figure 4.2) by Saunders et al. (2019, p. 167).

Creswell and Creswell (2018, pp. 181–182) identify a number of basic characteristics of qualitative design. First, the natural setting, as data are collected at the site, where the participant experiences the issue or problem under study. Secondly, the researcher plays an instrumental role, as they are expected to collect data by themselves via interviewing participants or other means. Thirdly, participants' meanings, where the researcher keeps the focus on learning meanings that the participants hold about the issue. And fourthly, inductive and deductive data analysis allow a typically qualitative researcher to work inductively to build patterns and themes then deductively to review their data on themes to determine if additional evidence or information is needed.

Figure 4.2: Methodological choice



(Source: Saunders et al., 2019, p. 167)

Qualitative researchers may use multiple qualitative data collection techniques and analytical procedures (Silverman, 2006; Moret et al., 2007; Sekaran and Bougie, 2016, p. 104). For example, researchers may consider using diary accounts and in-depth interviews and analysing these data using qualitative procedures like thematic analysis (Tuckett, 2014;

Nowell et al., 2017) or grounded theory (Strauss and Corbin, 1990). Saunders et al. (2019, p. 167) categorises such an approach as a multi-method qualitative study (see Figure 4.2).

As this research investigates the sensitive issue of food adulteration practices in sales of street food to children in Dhaka, Bangladesh, it will be unwise to generate information to gain knowledge using a mono method. In gaining knowledge of the industry this research adopts a semi-structured interview (remote) technique with the participants of phase one: current researchers, academics, government officials, nutritionists, NGOs and groups of customers. No entrepreneurs are interviewed at phase one; participants represent the formal institutions providing or contributing towards the oversight of the industry. Furthermore, the research analyses qualitative data using thematic analyses guided by the grounded theory of Strauss and Corbin (1990). Details of the technique are discussed later in this chapter.

As this research adopts a pragmatic philosophy by mixing methods, it is important to review both qualitative and quantitative methods here. The next section presents the quantitative design this research exercises.

#### 4.2.2 Quantitative design

This research study quantitatively examines relationships between variables by measuring them numerically and analyses the data using a range of graphical and statistical techniques. A researcher may adopt a single data collection technique; for instance, questionnaire and corresponding quantitative analytical procedures like cross-tabulation, trend analysis, chi-square analysis, regression analysis and others. Saunders et al. (2019, p. 166) categorise the single data collection approach as a mono method of quantitative study (Figure 4.1). This research uses a questionnaire survey to capture quantitative data from the respondents of phase two: food retailers operating in the street food industry (details of respondents from phase two are presented in section 4.1.1). The main purpose of using quantitative research

design is briefly mentioned the next section and in-depth information is provided later in the chapter.

Quantitative research design usually integrates measures to ensure validity of data. Furthermore, as data in this method are collected in a standard manner, it is fundamental to ensure that the questions included in the data collection process (e.g. questionnaire or survey) are expressed clearly, so that they are understood by each of the respondents in the survey the same way. Furthermore, use of a probability sampling technique is often adopted by researchers in this methodology (Saunders et al., 2019, p. 166). This research capitalises on qualitative data analysis (phase one) to gain an in-depth understanding of the industry selling street food to children. Using this information, the questionnaire is devised for phase two (quantitative) of this research. This process has ensured that the questions included in the questionnaire are clear and concise for easier understanding of the respondents and to capture relevant data against the research objectives.

Mono method quantitative design may adopt a multiple data collection technique and corresponding analytical procedures. For example, the researcher may consider using a questionnaire or survey and structural observation in the same study. The approach is categorised as multi-method quantitative study (Figure 4.1) by Saunders et al. (2019, p. 167). However, this study avoids using a multi-method quantitative approach.

Finally, considering the sensitive nature of the research topic, using only either a qualitative or quantitative method could fail to provide the actual picture of the objectives of this study. Hence after careful consideration this research decides to combine data collection through interviews, focus groups and questionnaire and survey: a mixed method.

### 4.2.3 Mixed methods design

According to Haq (2014), the rise of qualitative methods in social research has increased researchers' aptitude to better understand social constructs. However, researchers

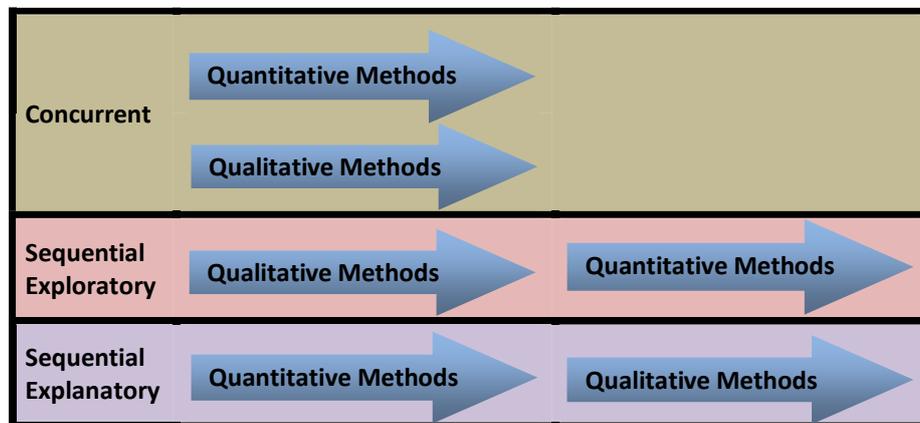
increasingly find themselves inclined towards using both quantitative and qualitative methods in the same study. Moreover, this shift of researchers' attitude is influenced by the idea that all numerical research is quantitative and all other research is qualitative. Haq (2014) argues that any research involving both numerical data and other types of data necessitated the birth of mixed methods. In support of mixed methods, Alasuutari (2010) states that the ambition to make research more robust has resulted in the prevalent use of mixed methods as a recognised research methodology. Similarly, mixed methods offers the potential to show social relations and complex phenomena more clearly by recognising the limitations of each method, as the methods are combined (Brannen and Moss, 2012). Conversely, Gorard and Symonds (2010) claim that the concept of triangulation in social research is the driving force for mixed methods' popularity, as triangulation increases the validity of research findings through mitigating both the inherent bias associated with individual methods and the likelihood of making inappropriate generalisations.

A mixed method research design is a branch under the multiple methods category of the methodological choice tree (Figure 4.2). In this research design the researcher is expected to mix philosophical underpinnings through use of both qualitative and quantitative data collection techniques and analytical procedures (Saunders et al., 2019, pp. 169–172; Sekaran and Bougie, 2016, p. 216). This research adopts this approach.

Similar to other research designs, a mixed method can be used with multiple approaches (Saunders et al., 2019, pp. 169–172). First, a mixed method can be used to collect and analyse both quantitative and qualitative data concurrently (Figure 4.3). This approach allows researchers to compare data sets and identify how they support each other (Saunders et al., 2019, pp. 169–172). However, the two different categories of respondents identified for this research have completely different interests, where one acts as entrepreneur and another provides insight into the industry's operations. As in-depth

knowledge from entrepreneurs can only be drawn once in-depth understanding is available with the guidance of the category 1 respondents, conducting concurrent research with two different categories of respondents is somewhat impossible.

Figure 4.3: Mixed method research designs



(Source: Saunders, Lewis and Thornhill, 2019, p.170)

Secondly, mixed methods research (see Figure 4.3) can use a sequential research design, which involves more than one phase of data collection (Saunders et al., 2019, pp. 169–172). In this approach, researchers use one method at a time, followed by another method to expand the initial set of findings (Saunders et al., 2016, p. 170). Furthermore, in a sequential mixed methods research design, a researcher may consider either of the following approaches or strategies: sequential exploratory research design, where a qualitative method is followed by quantitative; or sequential explanatory research design, where a quantitative method will be followed by qualitative (Saunders et al., 2019, pp. 169–172).

Exploratory research is invaluable as it serves to shed some light on the nature of a vague situation by gathering information that will help define the research problem (Saunders et al., 2020, p. 624). Moreover, exploratory research draws on many types of empirical techniques (for example, in-depth interviews, focus groups, pilot studies, surveys and feasibility studies) and non-empirical techniques (such as secondary data sources and content analysis). When conducting exploratory research, the researcher ought to be willing to change direction as a result of the discovery of new data or insights (Saunders et al., 2020, p. 624).

Considering the context and objectives of this research, adopting a mixed method research design accommodates all this study's research objectives appropriately. Furthermore, initial qualitative research design will generate significant insight to assist the design of the study's questionnaire for phase two of research. The discussion, thus, suggests adopting a sequential exploratory research design as best fit for the research aims and objectives. Justification for the research methodology is provided in the next section.

### **4.3 Research methodologies and justifications**

After careful consideration of the objectives it is understandable that a single approach of either a qualitative or quantitative method may not be sufficient in achieving the objectives in this research. For instance, the objectives may produce anticipated outcomes if respondents are given opportunities to explain the phenomena rather than answering questions in quantitative models. In-depth knowledge of the phenomena is doubtful among the street food vendors operating in Dhaka, Bangladesh. Hence, a qualitative approach may not be effective with such respondents. Saunders et al. (2019, pp. 279–280) and Sekaran and Bougie (2016) argue that a larger population could be covered conveniently through a quantitative approach. Thus, for this study it is appropriate to collect quantitative data from the street food vendors. A qualitative approach will thus sketch a platform for quantitative research in this study. Hence, this study uses a mixed method approach to address the research objectives in phases one and two of the research.

While reviewing the relevant literature it has become evident that most researchers adopt a qualitative approach, using either semi-structured questionnaires or observational methods. However, in most cases, the sample sizes are relatively small (examples are discussed in section 4.4 below). Due to the nature of a qualitative research approach, an in-depth understanding of a phenomenon can be achieved using a relatively small sample size, whereas using both qualitative and quantitative methods could make the results or

outcomes more reliable. Reviewing similar research in the field, this study adopts a mixed method approach. In phase one of the research, a qualitative approach applies semi-structured interviews (remote) as well as focus group interviews (remote). Subsequently, once the qualitative research results are analysed, a questionnaire is designed for phase two to capture quantitative data.

Until now, discussion has been focused on the methods and research philosophy this research has adopted. However, an in-depth discussion of either of the phases of data collection are not provided. The following sections present discussions on individual phases, which options or alternatives were available for this research and why an alternative has or has not been selected. Using a sequential exploratory approach, the following sections are presented in the same sequence: qualitative method discussion followed by discussions on the quantitative method.

#### 4.3.1 Phase one: Qualitative research, interview and remote interview

Interviews have been recognised as the main technique or primary method used in qualitative research. Interviews are considered to be the most direct and research-focused interaction between researcher and participant and are often seen as the most appropriate and convenient approach to gain access to the respondents' perspective through developing in-depth descriptions of the research themes (Oltmann, 2016; Sekaran and Bougie, 2016; Kvale, 2006). This research adopts interviews as a data collection tool in phase one, as guided by a qualitative method with the aim of gaining adequate knowledge on the industry of food sales to children in Bangladesh.

Interviews as a research tool have been discussed extensively for several decades (Oltmann, 2016). However, the interesting comparison between interviews as performed and interviews as written about have been the focus of much of these research discussions. The majority of the research proposes that interviews should be conducted face-to-face only or

simply assumes that they will be done in this mode and use of technology such as telephone interviews should only be used for setting up the time for the face-to-face interviews. Several researchers have described the interview process as the steps of arranging a voice recorder, sitting with the respondent, and taking notes on non-verbal cues while the face-to-face interview takes place. Clearly, they picture the interview solely as a face-to-face experience, as these steps would not be possible otherwise (Oltmann, 2016; Sekaran and Bougie, 2016). However, due to restrictions on physical face-to-face interviews imposed by the University's Research Ethics Committee, this research was unable to conduct direct face-to-face interviews. As a result, remote visual interviews and remote interviews (without visual) were arranged to capture data in phase one. Furthermore, as having direct face-to-face interviews was not possible, this research capitalises on the telephone as a vehicle/medium for the interviews to be held, alongside other telecommunications applications (for example, Skype, WhatsApp, Viber) to conduct the interviews remotely.

In support of telephone or remote interviewing techniques, Vogl (2013) proposes that it is common for semi-structured interviews to be conducted face-to-face, and one of the main purposes behind the approach would be to establish personal contact in qualitative interviews. However, telephone interviews are frequently ignored or do not get widespread acclaim. An absence of visual contact can make telephone conversations appear less personal and more anonymous but can also assist to minimise some misrepresentations and put any power imbalance between respondent and interviewer into perspective. Moreover, Oltmann (2016) supports this assertion and states that in recent years the development in technology using the likes of Skype and Voice Over Internet Protocols (VOIP) services has resulted in a lack of personal contact. There are dedicated sections on how these remote interviews are held and how credibility is ensured in remote data collection in the subsequent sections of this chapter.

#### 4.3.1.1 Remote interview

Before presenting a discussion of the validity of a remote interview mode, it is important to provide the context as to why this research adopts a remote mode rather than traditional and commonly used face-to-face interview mechanism.

The initial intention of this research was to hold face-to-face semi-structured interviews with the participants identified for phase one (qualitative) and ethics approval was requested. Considering the sensitive nature of the investigation this research envisioned to execute, the university ethics committee fairly identified potential risks of the researcher being present physically while data are collected in both phases of the research. Moreover, the term 'adulteration' was also found to be of a sensitive nature, particularly when data was to be collected from entrepreneurs in phase two (quantitative). As a result, this research carefully reconsidered the wording of the data collection vehicles in both phases, to mitigate associated risks and ensure safety measures. Finally, a remote mode in both phases of data collection was selected. The university ethics committee reviewed the revised ethics application and subsequently approved data collection.

However, interviewing remotely via telephone or using telecommunication applications supporting remote interviews such as Skype, WhatsApp and Viber are not very commonly used in research (Vogl, 2013). Hence, these apps have been criticised and there are concerns about their viability, validity and reliability (Vogl, 2013). Discussion in the following sections is designed to provide literary arguments in support of remote interviews and how this research mitigates any concerns associated with the use of this remote mode.

Oltmann (2016) states that interviewing by telephone has become popular in the last three decades and evidence of this popularity is present in the existing academic literature with numerous articles on telephone interviewing in qualitative research. These articles have also recognised the use of other remote interviewing techniques through telecommunication

applications such as Skype, e-mail and other VOIP (Oltmann, 2016). Telephone (or remote) interviewing has taken a central position in recent years, particularly in standardised social science research (Vogl, 2013; Jeske et al., 2018). Oltmann (2016) and Vogl (2013) suggest that, with the debate of appropriateness of telephone interviewing in qualitative research, remote or telephone interviewing is increasingly gaining popularity as it is low in cost and reachability is higher than a face-to-face approach. However, considering the importance of personal aspects in qualitative research, in many cases the researchers avoid using or adopting telephone interviewing techniques for their own research. Due to ethics restrictions, alternatives were limited for this research and adopted a combination of mediums in ensuring approval from the respondents; telephone, Skype, WhatsApp and Viber are used in phase one to conduct semi-structured interviews. Hence, data collection design is prepared with added caution.

In support of telephone semi-structured interviews, this research provides evidence of success from a similar study. The case study published by Johnson (2014) concludes that semi-structured telephone interviews can be successful particularly if the interview participants can use the telephone effectively. Participants in phase one of this research represent formal institutions and can use telephone and electronic devices (e.g. computer/laptop) effectively. This added feature of the participants increases the success credentials for this research from the perspective of data collection through remote interviewing. However, as the concept of remote interview is yet to be common in the research field, debate of its effectiveness over face-to-face interviews is ongoing. Hence, the next sections focus on discussion reflecting how credibility and effectiveness are ensured for remote interviewing in this research.

#### 4.3.1.2 Remote vs face-to-face interview

As the debate of remote interview techniques over face-to-face interviewing has yet to draw to a conclusion in academic articles, it may put researchers in a more complex

situation once the remote data collection technique is selected for primary data collection. This research adopts remote interviewing for the semi-structured interviews in phase one and the following section communicates justifications of selecting the approach through identifying advantages of using the remote interview technique.

#### **Economic advantages**

The most notable and clear advantage of using a remote or telephone interviewing technique compared to face-to-face interviewing techniques would be the economic or cost advantage. For instance, a remote interview will cost less money and time for the researcher, as the researcher is not travelling. Additionally, it is also highly likely that the respondents will be easily reachable from a greater geographic range (Vogl, 2013). Moreover, Canning et al. (2018) suggest that telephone or remote interviews are a suitable replacement for face-to-face interview methods.

In this research, the researcher is based in the UK and all participants are based in Bangladesh. Organising the semi-structured interviews remotely via telecommunication applications (i.e. telephone, Skype, WhatsApp, Viber) is the most appropriate option and the research successfully manages all interviews without any significant limitations.

#### **Channel capacity**

Vogl (2013) and Johnson (2014) note that a lack of visual presence is a limitation of remote interviewing. However, ensuring visuals in a remote interview mechanism can minimise that limitation. This research establishes arrangements for VOIP features such as Skype, WhatsApp and Viber to alleviate the limitation and in most cases the participants welcome the option.

#### **Trust building**

It is assumed that lack of physical presence in an interview may lead to lack of trust from the participant's side, as the participants may not find the natural flow of the interview (Vogl,

2013). Vogl (2013) and Johnson (2014) find that use of telephone (remote) interviewing techniques can in fact be successful with establishing trust.

#### **Cues for understanding**

It is a common norm in semi-structured interviews to look for visual and auditory cues between attendees in understanding emotional reactions (Vogl, 2013). Using VOIP, this research utilises visual contact in the interviews and informal briefings are provided to all participants offering clarity about expectations of the interview sessions.

#### **Control over communication process and focused exchange**

According to Helfferich (2011) and Vogl (2013), the absence of visual cues may make interviews difficult to control for either the interviewer or respondent. Visual signals usually work as feedback to both in an interview. Conversely, Holt (2010) suggests that use of the telephone provides more control to both researcher and respondent rather than limiting it, because use of the phone will enable both parties to control their own space and time and also to protect themselves from interruption from third parties. In this research the participants are offered flexibility in selecting a time according to their convenience and interview schedules are managed following Bangladesh working hours.

Moreover, Holt (2010) and Vogl (2013) suggest that interviews conducted remotely are more focused, as the whole process reduces distractions and risks of diffusion. The qualitative phase of this research has a similar positive experience, as the participants schedule the interview at times when they are able to give full attention.

#### **Context cues and interviewer bias**

Vogl (2013) says that in a face-to-face interview there is always the risk of interviewer bias affecting the outcome of the research. Physical presence of the interviewer may influence the way the respondent will behave. Lack of communication channels in a telephone or remote interview mitigates these concerns. The briefings prior to the sessions and

background of the participants in phase one facilitate articulated contributions and eliminates bias from researcher.

#### Respondent's satisfaction

Sixth and finally, Vogl (2013) states that although remote interviews lack additional non-verbal messages, they tend to take a much shorter time compared to face-to-face interviews, with the respondents generally being more satisfied and motivated. As the remote arrangements of this research offers participants the flexibility to set a time and day, interviews are shorter than expected but knowledge is captured efficiently.

#### 4.3.1.3 Advantages vs disadvantages of remote interviews

Table 4.1 illustrates the advantages and disadvantages of remote interviews.

**Table 4.1: Advantages and disadvantages of remote interviews**

Advantages of remote interviews	Disadvantages of remote interviews
Limited personal contact: <ul style="list-style-type: none"> <li>• less social desirability</li> <li>• suggests anonymity and privacy               <ul style="list-style-type: none"> <li>○ more sensitive information</li> </ul> </li> <li>• less interviewer bias</li> <li>• power imbalance is “invisible”</li> <li>• fewer distractions</li> <li>• respondents have more control over the process</li> <li>• more focused communication</li> <li>• richer text</li> <li>• safe environment for researcher</li> <li>• cheap and easy reachability</li> <li>• hard-to-reach populations are accessible</li> <li>• wide geographical coverage</li> </ul>	Limited personal contact: <ul style="list-style-type: none"> <li>• less intimacy tends to less sensitive information</li> <li>• trust is more difficult to establish</li> <li>• endangers motivation and concentration               <ul style="list-style-type: none"> <li>○ more satisfying</li> <li>○ shorter and superficial responses</li> <li>○ less pauses</li> <li>○ impersonal, anonymous character</li> <li>○ Exchange limited to verbal and</li> <li>○ paralinguistic signals:</li> <li>○ more interactional difficulties</li> </ul> </li> <li>• less cues for understanding</li> <li>• no visual aids</li> <li>• less control over interview situation (potentially third person present)</li> <li>• difficult to attain for interviewer</li> <li>• control over conversation more</li> <li>• less depth of responses</li> <li>• less context information/social cues</li> </ul>
(Source: Vogl, 2013)	

#### 4.3.1.4 Context of the interviews

Alongside the advantages and disadvantages of remote interviewing techniques, this research considers Fontana and Frey (2000) and Oltmann's (2016) description of how an interview is shaped by the context (i.e. sensitive or controversial topic, interviewer safety, respondent's anonymity and empowerment) in which the interview is executed. Tables 5.1

and 5.2 in Appendix 5 summarise the contexts and their impact associated with this research. This research has taken every step in mitigating the drawbacks that the adopted approach may have in comparison with traditional face-to-face interviews.

Discussion in the following sections further ensures the success of phase one (qualitative) in respect of validity and reliability of the qualitative phase.

#### 4.3.2 Validity and reliability of qualitative research

Qualitative research tends to provide measures with greater validity compared to surveys or any experimental measurements, yet qualitative research is often criticised as artificial and not certainly valid (Babbie, 2014, p. 318; Noble and Smith, 2015). As this research adopts a remote interviewing approach, the expectation of criticism is even higher. According to Noble and Smith (2015) and the Centre for Innovation in Research and Teaching (CIRT, 2018a) a qualitative research study is constructed on subjective, interpretive and contextual data; it is more likely therefore that research findings would be questioned and scrutinised. CIRT (2018a) further suggests that reliability refers to consistency through which a research study would produce the same results if repeated and validity refers to the accuracy of the research findings.

The following sections discuss the ways this research establishes the reliability and validity of qualitative research findings.

##### 4.3.2.1 External reliability or dependability

Bell et al. (2018, p. 294) and CIRT (2018a) define dependability as the consistency through which the results could be repeated to produce similar findings; dependable findings increase acceptability for the research method. Thus, any future researcher would be able to repeat and replicate the exercise with less complexity (Bell et al., 2018, p. 294). For this research, qualitative data are accumulated and coded in multiple orders using NVivo and subsequently analysed, and no anomaly is recorded. This ensures that if future research is

conducted using the same or similar parameters, results will be same or similar and will confirm reliability of this research. Additionally, ensuring external reliability, this research also considers internal reliability to increase the credibility of the research.

The following section addresses the internal reliability of this research.

#### 4.3.2.2 Internal reliability or confirmability

Bell et al. (2018, p. 294) and CIRT (2018a) refer to internal reliability as a means to evaluate how well a research project is measuring what it intends to measure. In essence, it is about ensuring that the subjective element can be given an objective rendering through different forms of validation and triangulation (Bell et al., 2018, p. 294). This research interprets the data using codes prepared against the objectives of the research. As this research brings its own perspective in its research process, data analysis and interpretation, claims can be made that the interpretations are somewhat subjective. Evidence of inappropriate bias affecting the data analysis will be not found, however, which establishes internal reliability of the qualitative phase of this research.

#### 4.3.2.3 Internal validity or credibility

Bell et al. (2018, p. 295) and CIRT (2018a) suggest that internal validity or credibility refers to the trustworthiness and believability of the findings. The credibility of the data is dependent on the richness of the data collected rather than on the quantity. The participants of this research are the ones who give results reflecting the research topic, objectives and phenomenon being studied and, consequently, it is important that interviewees have confidence that the findings are accurate and credible. Triangulation is a commonly used in qualitative research to establish validity and verifying accuracy. Carter et al. (2014) refer to triangulation in qualitative research as the use of multiple methods or data sources to develop a comprehensive understanding of phenomena. Evidence of numerous triangulation methods used in qualitative research can be found in literature; where five are most dominantly adopted: a) data triangulation; b) investigator triangulation; c) theory

triangulation; d) methodological triangulation; and e) environmental triangulation (Guion et al., 2011). Triangulation methods of this research are presented in the following sections.

#### *4.3.2.3.1 Data triangulation*

According to Guion et al. (2011), a data triangulation method involves using different sources of information to increase the validity of the study. The sources of information could be stakeholders, other researchers, participants, community members and others (Guion et al., 2011). In phase one, this research collects data from academics, researchers, nutritionists, government officials, NGOs and customers who provide insight into entrepreneurs of the street food industry. Participants are selected from different industries, but they have responded to the same set of questions designed for the semi-structured interview questions for phase one. The analysis process finds consistent patterns in the responses from diverse interviewees.

#### *4.3.2.3.2 Investigator triangulation*

On investigator triangulation, Guion et al. (2011) state that the researcher is required to involve multiple investigators in the analysis process. Most commonly an evaluation team is established, consisting of colleagues within the field of study, and each investigator examines the same data collected in the same qualitative research. Findings from each member would be compared to gain a broader and deeper understanding of how different investigators interpret the same issue. Post-data collection, this research established a team of three investigators, each with access to the same data collected in phase one. In the data comparison exercise, this research did not identify any significant difference in the interpretation of data from the other investigators and therefore the validity of the remote semi-structured interview process and data captured is established.

The other three major triangulation methods – theory triangulation, methodological triangulation and environmental triangulation – are not found appropriate for this research and thus are not adopted.

#### 4.3.2.4 External validity or transferability

Bell et al. (2018, p. 296) and CIRT (2018a) propose external validity to the degree that the results of the research are transferrable to other contexts by the readers. In simple translation this means that the results from the qualitative research should be easily generalisable and others can apply the findings to other similar situations, settings and/or populations. Data analysis of this research follows a systematic approach and communicates carefully through this submission so that readers can generalise the findings in order to be able to apply the findings in other similar situations and contexts.

The following sections present further debate supporting semi-structured interviews used in phase one of this research, in line with discussion on how interviews are validated in the project.

#### 4.3.3 Semi-structured interviews (qualitative research)

Considering the sensitive nature of the topic under investigation, semi-structured interviews are conducted remotely from the UK, using online and telecommunication applications. International telephone calls, Viber, Skype and WhatsApp applications are used to establish connection for the interviews.

##### 4.3.3.1 Validating interviews

Kvale (2006) notes that dialogue in research interviews can be misleading. Kvale (2006) defines an interview as a meeting with another person to achieve a specific goal, and more commonly, as a conversation with a purpose. Similarly, Prescott (2011) suggests that interviews play an important role in ethnographic research.

The interview process is a joint endeavour where both partners, through dialogue or conversation, search for true understanding and knowledge (Kvale, 2006). Interviews allow the interviewees (respondents) to freely present their experiences and knowledge in their own words, and enable a comfortable or close personal collaboration between the

researcher and their subjects (Kvale, 2006; Prescott, 2011). The main purpose of phase one (qualitative) is to gain in-depth understanding of the research themes/concepts from a subjective point of view of the participants, where their opinions are based on personal experience, expertise, knowledge or research. Moreover, the interview process allows the researcher to create trust through a personal relationship with the interviewees which serves to efficiently obtain a disclosure of the interview subjects' knowledge, opinions or understanding (Kvale, 2006). In the interview process (using VOIP), this research uses a gentle, charming and client-focused manner to create a close personal encounter where the interviewees unveil or share their in-depth knowledge and experiences (Kvale, 2006).

The following sections provide justification for the approaches this research adopts to mitigate any methodological limitations.

#### **The asymmetrical power relation of the interview**

Briggs (2002) and Kvale (2006) argue that asymmetries or inequality of power develop in interview situations. Phase one of this research (qualitative) maintains a hierarchical relationship with an asymmetrical power distribution between the interviewer (myself) and interviewee (participant). It is a one-way dialogue, an indirect and instrumental conversation, where the researcher sustains a monopoly of interpretation.

First, Kvale (2006) recommends that interviewer take charge of the interview, maintain a scientific competence that drives the interview situation, agrees the date and time and initiates the interview. The interviewer strictly maintains the topic of the discussion as pre-set in the research instrument (semi-structured interview questions) and technically follows up on the answers with the leading sub-questions (when needed/necessary), and finally closes the interview or conversation. Secondly, the interviewer should maintain a one-way dialogue in the interviews through one-directional questioning. This researcher maintains the role of asking the questions, with the role of the participants being to answer them.

Thirdly, this research utilises interview as an instrumental dialogue. The charming and client-focused approach and the good conversation are no longer the goal, nor a search for truth in a joint venture, rather the interview is intended as a resource to serve the researcher's objectives. Finally, the research has the monopoly of interpretation of the interview. This research maintains exclusive control to interpret and report what the interviewee meant.

#### **Agonistic interview alternatives**

Kvale (2006) points out that the classical Greek philosopher Plato used conversation or dialogue as a joint search for true knowledge. Thus Platonic dialogue is defined as a conversation where two people understand each other, where law of the subject matter has supreme priority on other aspects of the conversation (Kvale, 2006). Similarly, this research engages in conversation with the participants with the themes of the subject matter guiding the dialogue. Moreover, this research adopts an actively confronting interview approach, where the researcher uses follow-up questions in response to the participant's answers.

This research adopts a sequential exploratory approach, where quantitative research follows earlier qualitative exploratory research. The following sections discuss the quantitative measures this research uses.

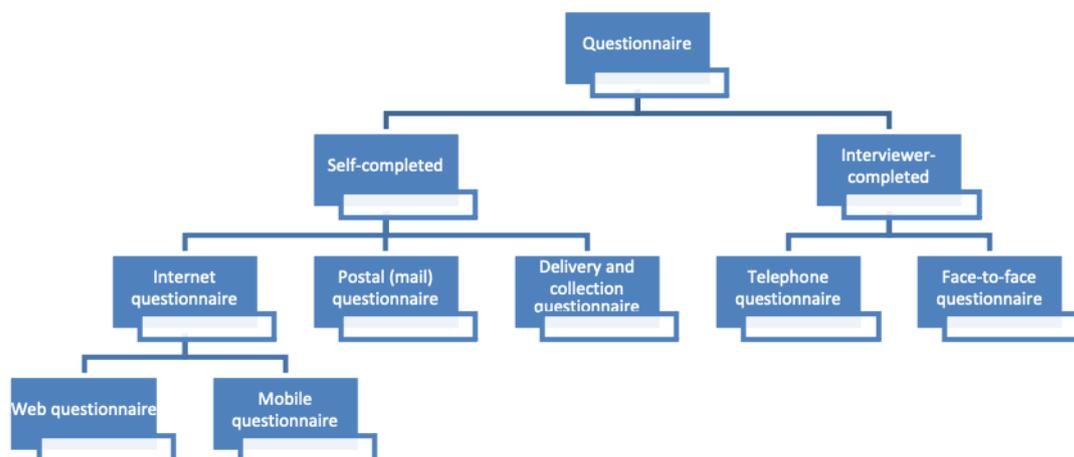
#### **4.3.4 Phase two: Quantitative research, interviewer completed survey**

This research could not adopt a traditional face-to-face questionnaire survey (data collected by the researcher); it rather adopts an interview survey technique where data is collected by a group of qualified and trained data collectors using a questionnaire. The following sections address the details of the arrangements and essential components associated with data collection through the survey.

Babbie (2016, p. 267) suggests interview as an alternative method of collecting survey data. In an interview survey approach the researcher sends interviewers to ask questions verbally

and record respondents' answers, instead of asking respondents to read questions and enter their own answers. In this mode it is expected that interviews will take place typically in a face-to-face encounter. Similarly, Saunders et al. (2019, p. 440) and Denscombe (2014) categorise questionnaires into two categories: self-completed, also known as self-administered; and interviewer-completed. In their categorisation, an interview survey is referred as a sub-category of the interviewer-completed approach and titled as face-to-face questionnaires or structured interviews (Figure 4.3). Additionally, the authors expect that an interviewer-completed questionnaire will usually attain a higher response rate than self-completed questionnaire responses. In an interviewer-completed questionnaire approach, researchers can include more complicated questions compared to a self-completed or telephone interview approach; and a longer questionnaire is best presented in an interviewer-completed questionnaire (Saunders et al., 2019, p. 442).

Figure 4.3: Types of questionnaire



(Source: Saunders et al., 2019, p. 440)

Moreover, a typical interview survey requires more than one interviewer, although a researcher may undertake a small-scale interview survey him or herself. However, for large-scale data collection, the lone researcher approach can be time-consuming (Babbie, 2016, pp. 267–270). This research deploys a team of data collectors to capture the data from the field due to the restrictions imposed by ethics committee. Details of this approach and the team of data collectors is included in section 4.5.2 in this chapter.

#### 4.3.4.1 The role of the questionnaire survey

##### Response rate

There are number of advantages of conducting surveys (also known as personal interviews) where a questionnaire is administered by an interviewer rather than the respondent (self-completed) (Babbie, 2016, p. 267). Interview surveys naturally achieve a higher response rate than mail surveys. An appropriately designed and executed interview survey is expected to achieve a completion rate of at least 80 to 85 per cent (Babbie, 2016, p. 267). This research captures 250 completed questionnaires from 279 attempts made by the team of data collectors, which yielded an 89.6 per cent completion rate.

##### Completed questionnaire

Babbie (2016, p. 267) and Denscombe (2014) propose that the presence of an interviewer normally decreases the number of 'don't knows' and 'no answers'. Minimising these 'don't know' and 'no answer' responses is fundamentally important to this study and the interviewers were instructed to probe for answers: for instance, *'If you had to pick one of the answers, which do you think would come closest to your feelings?'*

##### Additional clarity

According to Babbie (2016, p. 267) and Denscombe (2014), if the interviewer assumes that a respondent clearly misunderstands the intention of the question or mentions that he or she does not understand, the interviewer can clarify matters, to aid obtaining relevant responses. The team of data collectors has also experienced this and successfully supported the respondents when clarity was needed.

#### 4.3.4.2 General guidelines for interview surveys

The team of data collectors are carefully briefed and trained on expectations to ensure the maximum output is achieved from the phase two data collection. The following sections provide brief information on the guidelines this research considers in phase two of the data collection.

### Appearance and demeanour

The participants in the survey are street food entrepreneurs who may not have appropriate education, training, knowledge or financial capabilities. As a result, the team of data collectors are instructed to dress casually and have patience when completing the questionnaire. As Babbie (2016, p. 269) states, it is essential that the participants feel comfortable in front of the interviewer when the survey is taking place. The interviewer needs to be pleasant so that the participants feel comfortable.

### Familiarity with the questionnaire

As a team of data collectors collected the data, this arrangement may raise concerns of the data collectors' unfamiliarity with the questionnaire (Babbie, 2016, p. 269). To mitigate this concern, data collectors are consulted via Skype multiple times prior to the data collection phase and are provided with training to familiarise them with the questionnaire.

### Following question wording exactly

Ordering and wording of the questions used by the data collectors can be a concern when data is not collected by the researcher personally (Babbie, 2016, p. 269). The training sessions with the team of data collectors emphasises the importance of the wording to be used when collecting data using this questionnaire, also providing an opportunity to clarify any words/phrases used in the questionnaire.

### Recording responses exactly

The next concern this research addresses is whether the data is recorded according to the responses given. The absence of the lead researcher in the field may increase the risk of recording data inaccurately (Babbie, 2016, p. 269). The training provides instructions on how the data should be recorded and what will make the data recording wrong.

### Probing for responses

It is possible that participants of phase two can give incomplete or inappropriate answers due to their poor educational background. In these circumstances the interviewer is expected to provide and ask for further clarity from the participants (Babbie, 2016, p. 269).

The training instructs the team what makes an answer incomplete or inappropriate and what they should do in such a situation.

#### 4.3.4.3 Coordination and control

As interview survey is usually done with a team of data collectors, sometimes it becomes difficult for the lead investigator to coordinate and control the overall data collection process (Babbie, 2016, p. 270). When the team of data collectors was created, I appointed a full-time supervisor to coordinate and control them. Frequent meetings with the supervisor took place (via Skype), to discuss progress and concerns (if any), and further meetings with the team at regular intervals to ensure authenticity and integrity of the data collection.

The next section demonstrates how the questionnaire is designed for data collection in phase two.

#### 4.3.5 Models used in questionnaire design

This research reviews nine models to design the questionnaire. From the reviewed models, this research rejects six and adopts three. Details of all adopted and a selected number of rejected models are discussed in the following sections.

##### 4.3.5.1 Facet theory (FT) model: Adopted

Landsheer and Boeije (2008) suggest Guttman's facet theory (FT) or qualitative facet analysis (QFA) as specific and practical applications. The facet theory model investigates whether a subject is sufficiently covered as intended for quantitative research. The model requires the researcher to analyse the content systematically and effectively, and to develop a critical tool to improve the questionnaire (Lin et al., 2015).

Regarding the qualitative facet analysis, Landsheer and Boeije (2008) explain that the researcher should identify concrete phrases within the items that represent an aspect to be measured and these concrete phrases are labelled with a more precise facet or identifier. Landsheer and Boeije continue that researchers may consider using one or more questions

to investigate each facet. According to Borg and Shye (1995) and Hackett (2014), in designing a methodology and during data analysis facet theory contributes with a general system to identify concepts, definitions and theorems.

This research adopts the QFA model to identify the concrete phrases that need to be investigated in phase two of the research. To identify these concrete phrases this research applies first and second order coding using NVivo. Using first order coding on phase one qualitative data, 71 key findings (concrete phrases) are identified. Moreover, in second order coding these 71 key findings are further investigated and are made more precise by linking them with the objectives of the research.

The structure of the first order coding is presented in a later section of this chapter and evidence of first order coding and 71 key findings are communicated in chapter five ('Qualitative findings'). Additionally, evidence of second order coding and linking the key findings with the objectives are presented in chapter seven ('Data analysis'). Finally, these 71 key findings from chapter five are considered in constructing the questions for the questionnaire used in phase two of the data collection.

Alongside facet theory, this research adopts a single-stimulus format (SSF) and forced choice questionnaire (FCQ) model in the questionnaire development. The next section provides the context and rationale of their inclusion.

#### 4.3.5.2 Single-stimulus format (SSF) and forced choice questionnaire (FCQ) model: Adopted

Brown and Olivares (2011) suggest that in quantitative research the most popular technique to present questions in a questionnaire is through rating and Likert scale-type questions. A Likert scale is a questionnaire (usually a five- or seven-point scale) which asks respondents to indicate how much they agree or disagree with a statement, approve or disapprove of it, or believe it to be true or false (Allen and Seaman, 2007). With this type of questions

participants are requested to rate a statement within provided categories; for instance, from 'strongly agree' to 'strongly disagree'. This format is also referred to as single-stimulus format (SSF). However, there are limitations of this format, including possible response bias, because not all respondents will interpret the rating scale the same way. Brown and Olivares (2011) argue that designing the full questionnaire completely based on SSF may not be appropriate.

Brown and Olivares (2011) recommend the forced choice questionnaire (FCQ) model as a technique to deal with bias in quantitative research, where multidimensional forced choice (MFC) format is preferred. In MFC format, the questions are constructed in blocks of two or more statements of different dimensions. Respondents of this format are required to select between statements considering how well the statement represents or describes their behaviour or preference.

This research adopts a combination of single-stimulus format (SSF) and forced choice questionnaire (FCQ) models. The FCQ model includes multidimensional questions, alongside rating scale questions following the SSF model. This research also reviewed split questionnaire design (SQD) and repetitive model refinement (RDR) when designing the questionnaire for phase two, but rejected these.

Alongside the data collection tool, sampling methods are carefully evaluated and adopted in this research. The next section demonstrates the sampling technique the research uses.

#### **4.4 Sampling methods**

This research collects data in two phases: phase one conducts qualitative research using semi-structured interviews and focus groups. Where the interview participants are not directly involved in the production of street food in the informal industry, they rather contribute in-depth knowledge and understanding of the food industry and current

situation. In phase two of the research a questionnaire survey is conducted with businesspeople operating in street food sales to children in Bangladesh.

As participants in the two phases have different agendas to be active in the sector, this research adopts a varied sampling technique. The following sections outline the sampling methods employed in this research.

#### 4.4.1 Sampling for qualitative research (phase one)

Bell et al. (2018, pp. 318–330) suggest a number of popular sampling methods adopted frequently in qualitative research. Denscombe (2014), Olivia (2018) and CIRT (2018b) find that multiple sampling techniques are used in conjunction with one another very easily in the same qualitative research if they are appropriate for the research.

The following sections describe the most popular sampling techniques for qualitative research and a rationale for their adoption or rejection in this study.

##### 4.4.1.1 Purposive sampling: Adopted for phase one

Bell et al. (2018, pp. 320–321) define purposive sampling as non-probability sampling and claim the majority of qualitative research involves purposive sampling to some extent. Rather than taking a random approach in selecting participants, the participants are selected in a more strategic way (Bell et al., 2018, pp. 320–321), particularly when establishing the relevance between the participants and questions that are being posed (CIRT, 2018b). Furthermore, the main rationale of purposive sampling is to select participants who can provide in-depth and detailed information about the phenomenon under investigation (Denscombe, 2014; Olivia, 2018).

Bell et al. (2018, pp. 320–321) suggest that purposive sampling can be completed using a number of approaches commonly used by qualitative researchers. Phase one of this research adopts a ‘maximum variation sampling’ approach (Patton et al., 2011; Bell et al., 2018, pp. 320–321), as the approach ensures covering a wide range of possible variations in

terms of the dimension of interest. As this research interviews a diverse group of participants in gaining an in-depth understanding on the subject matter, this approach is deemed most appropriate.

#### 4.4.1.2 Snowball sampling: Adopted for phase one

Also known as 'chain referral sampling', snowball sampling is a non-probability sampling technique where the participant refers the investigator to other potential contributors who may be able to participate in the research and provide insight into the study. With this approach, the researcher may be able to identify and select participants who may be difficult to reach otherwise (CIRT, 2018b; Bell et al., 2018, pp. 324–325; Explorable, 2018a). For this reason, snowball sampling is also considered a form of convenience sampling (Bell et al., 2018, pp. 324–325).

Dudovskiy (2018) recommends three types of snowball sampling methods which a research study can adopt:

- a) Linear snowball sampling, where the data collection begins with only one participant and the participant provides only one new referral. The pattern continues until the study or sample group is complete.
- b) Exponential non-discriminative snowball sampling, where the first participant may provide multiple referrals and the researcher explores all referrals, until sufficient data are collected, or samples are selected.
- c) Exponential discriminative snowball sampling, where the initial participant may provide multiple referrals, but researcher explores or recruits only one referral, considering the choice of the subject area guided by the aims and objectives of the study.

This research adopts an exponential non-discriminative snowball sampling, as the technique facilitates the research to recruit a hidden population and potential participants

conveniently. Furthermore, considering the remote data collection arrangements, this approach is found to be most appropriate.

This research uses snowball sampling in combination with purposive sampling; for instance, while the academic participant is interviewed, the researcher enquires about referrals and receives recommendations for government officials and current researchers. Successful referrals are received. On one occasion, the initial participant selected through purposive sampling was unavailable; however, a referral was made to another government official working in the area of food safety.

Alongside these sampling methods, this research reviewed convenience, quota, theoretical and probability sampling techniques for phase one, but these were rejected as they were found not to be appropriate for this study.

Subsequent to successful completion of phase one, this research carefully considers sampling methods for phase two. The respondents for phase two are not as diverse as phase one and selecting a sampling method is simpler. This research uses a quantitative approach with vendors of street food who sell to children in Dhaka, Bangladesh and all respondents responded to the same questionnaire.

#### 4.4.2 Sampling for quantitative research (phase two)

##### 4.4.2.1 Non-probability judgemental/convenience sampling: Adopted for phase two

Non-probability judgemental or convenience sampling is used for quantitative research, as it is somewhat difficult to obtain statistics required for random sampling (e.g. population definition and sampling frame (Sharma, 2008)). Sharma (2008) and Hayes (2008) suggest that judgemental sampling provides an opportunity to best use the knowledge of the researcher and the most economical technique.

A pilot survey is conducted with five entrepreneurs in the industry selling street food to children using the questionnaire.

#### 4.4.3 Sample size: Qualitative research (phase one)

Bell et al. (2018, pp. 326–328) state that sample size is one of the major problems in qualitative research. They add that in qualitative research based on theoretical considerations for guidance, establishing a sample size is even more difficult. Guest et al. (2006) state that it is difficult to confirm whether articulation of information has achieved the saturation in qualitative research. Warren (2002) suggests that the number of interviews should be between 20 and 30.

This research uses mixed methods with a sequential exploratory approach, which makes the research independent from relying only on one mode of data collection. Due to the purpose focused sampling method in phase one, this research has the control in deciding when data capturing is sufficient in phase one. Thus, the purpose of phase one data collection is served. This approach guides the research not to prepare for large-scale interviewing at phase one.

This research transcribes the qualitative data captured in phase one. On transcribing 13 interviews the research confirms that adequate data is captured for analysis and to develop a framework for phase two (the quantitative research). Two focus group interviews are conducted. The focus groups accommodate a total of 11 participants.

#### 4.4.4 Sample size: Quantitative research (phase two)

##### 4.4.4.1 Sample size in similar research

In deciding the sample size for phase two, it is pertinent to review other research within the context of Bangladesh and in developing and developed economies. Khairuzzaman et al.'s (2014) study on food safety challenges in Bangladesh uses 100 respondents, whereas a similar study by Seetha et al. (2016) utilises 241 respondents.

Islam et al.'s (2017) research on street food eating habits in Dhaka examines 111 respondents. Nipun et al.'s (2017) study of opinions of junk food of Bangladeshi students uses 150 respondents. Similarly, a study on an immigrant population from the United States on food safety education considers a sample size of 32 respondents (Ratnapradipa et al., 2010). A doctoral study investigating food safety at Iowa State University in the United States uses a sample size of 99 respondents (Reynolds, 2016).

Before deciding on the sample size for this research, the following issues and factors were considered within the scope to calculate and confirm the sample size.

#### 3.4.4.2 Calculating sample size for quantitative phase

In calculating a reliable sample size, this research reviews sample sizes adopted in similar research studies and verifies the sample size through multiple scientific sample size calculators (FlexMr, 2019; Creative Research System, 2012; Raosoft, 2004) and calculates a sample size of 250. Detailed commentary of the sample size calculation process is included in Appendix 5.

### 4.5 Data collection

Both phases of data collection are conducted remotely. In-depth literature instruction on how data can be captured effectively in remote arrangements is discussed earlier in this chapter. The following two sections outline how the qualitative and quantitative data collection method is used in this research.

#### 4.5.1 Qualitative data collection (phase one)

Thirteen remote semi-structured interviews are conducted to generate insight and in-depth understanding of the factors associated with the aims and objectives of this research. On completion of a qualitative analysis, a questionnaire for quantitative data collection is designed.

For qualitative data, interviews and focus groups are conducted with academics, current researchers, government officials (i.e. individuals from the Ministry of Food and disaster management and food safety advisers), NGOs and two groups of consumers (focus group). The two focus groups' semi-structured interviews are conducted with total 11 customers of food sold to children, where participants represented different backgrounds; for instance, medical practitioners, businesspeople, homemakers and full-time and part-time employees. No children are interviewed during this research, intentionally to avoid any potential ethical issues.

Thematic analysis of Dodds and Hess's (2020) findings suggests that adapting online focus group interviews can lead to four key benefits and three limitations. The benefits include: 1) comfortable, non-intrusiveness and safe: Woodyatt et al. (2016) claim that ensuring a comfortable and non-intrusive (Newman et al., 2017) setting through online focus group interviews can influence participants in sharing more sensitive information; 2) engaging and convenient: Bruggen and Willems's (2009) study shows online focus group interviews tend to generate shorter and immediate responses from participants, yet the responses provide in-depth information, and Adams-Hutcheson and Longhurst (2017) claim that online focus groups are engaging and mitigate issues encountered by traditional face-to-face focus group interviews; 3) ease of online communication: Batat (2020) suggests that participants in the current world are more technologically advanced and finds joining online events like focus groups more convenient compared to the past; and 4) easy to set-up (Dodds and Hess, 2020).

Dodds and Hess (2020) outline limitations associated with online focus groups such as poor set-up, non-verbal communication and privacy and access issues. In an effort to mitigate these limitations this research ensures participants are informed in advance, so that the issue relating to privacy and access can be addressed. Additionally, Internet access or other

channels of connectivity are also reviewed to ensure the focus group session can be run without disruptions. The participants are also briefed prior to the focus group sessions to reduce the need for non-verbal communications.

In the process of the research, support from existing NGOs in Bangladesh who are working for food safety in the country are accessed. Records show there are five partnering NGOs currently working with the Bangladesh Food Safety Network (BFSN), which was formed in 2010. The partner NGOs of the BFSN include: Hunger Free World (HFW), the Consumer Association of Bangladesh (CAB), B-Safe, UBINIG (Unnayan Bikalper Nitinirdharoni Gobeshona; translated as Policy Research for Development Alternative) and SHISUK (Shikkha Shastha Unnayan Karzakram; translated as Education Health Development Programme) (Food and Agriculture Organization of the United Nations, 2014). Assistance is also received from one of Bangladesh's leading NGOs, 'Friendship', which became useful during the data collection phases (qualitative and quantitative) of this research.

#### 4.5.2 Quantitative data collection (phase two)

In phase two, 250 questionnaire survey responses are captured from multiple locations within Dhaka. Due to the restriction on physical presence, this research planned in advance to use local professional agents who would facilitate data capturing only for phase two. The research received ethics approvals for using local agents.

The data collection at phase two of this research begins with a process to recruit potential local agents to work as data collectors. Six data collectors are recruited and trained according to the needs of the research. Details of the data collectors are presented in Table 4.2. Names of the data collectors are redacted for confidentiality reasons.

Table 4.2: Details of Data Collectors

Name	Role in the research	Data collection experience	Notable Experience	Area covered
Dr AHA	Team Coordinator (Full-time)	6 Years	Research Investigator (specific research) for Bloomberg initiative for tobacco control research, Research Coordinator for IFRC-Bangladesh Red Crescent Society Health Research	
Md. MH	Data Collector (Full-time)	18 years	For Govt. of Bangladesh. Global Adult Tobacco Survey 2009 Research for WHO, National Heart Foundation Epidemiology department and other national and International NGOs	<b>Dhaka North:</b> Kallyanpur, Shaymoli, Agargaon, Taltola, Uttara, Banani, Rampura
Md. SI	Data Collector (Full-time)	12 years	For Govt. of Bangladesh. Research for National Heart Foundation Epidemiology department, and other national and International NGOs	<b>Dhaka North:</b> Mirpur 1, Mirpur 2, Mirpur 6, Mirpur 7
Md. ZI	Data Collector (Full-time)	9 years	Bangladesh Demographic and Health Survey Global Adult Tobacco Survey 2018 Research for National Heart Foundation Epidemiology department and other national and International NGOs	<b>Dhaka North:</b> Mohammadpur <b>Dhaka South:</b> Rayer Bazar, Dhanmondi, Kalabagan, New Market,
Md. BH	Data Collector (Part-time)	4 years	Research Assistant for Bangladesh University of Health Sciences	<b>Dhaka North:</b> Mirpur Technical <b>Dhaka South:</b> Mogbazar, Bangla Motor, Eskaton, Ramna
Ms AH	Data Collector (Part-time)	4 years	Research Assistant for Bangladesh University of Health Sciences	<b>Dhaka North:</b> Mirpur 10, Mirpur 11, Mirpur 12, Kazipara

Four Skype meetings are held with all six members from the data collection team. The first meeting is designed to familiarise the team with the research expectations, ethical requirements and arrangements (e.g. consent form, participant information form), agreement on time frame, and a discussion on how captured data is to be submitted.

The second meeting focuses solely on the approved questionnaire. In this meeting each question is analysed, translated (only for the data collector) and explained. Data collectors are briefed and trained. The data collectors have access to the approved questionnaire prior to this meeting, to facilitate advance preparation and so appropriate questions can be asked if any clarification is needed.

The third meeting is held during the early stage of the data collection phase to identify any issues the data collectors might encounter in capturing the data. The final meeting with the

full team is held after the data are captured, to bring closure to this data collection phase of the research.

Besides these four team meetings, several consultations are conducted with the team coordinator to receive regular updates on data collection, review captured responses, and to minimise any data error.

The next section discusses the protocol of the pilot testing process of data collection.

### 4.5.3 Pilot testing

The main objective of the pilot test is to refine the research instrument to make it easy for the participants to answer (Saunders et al., 2019, pp. 473–474). Based on the participants' reactions or remarks, adjustments are made to the research instruments (Zou and Sunindijo, 2015).

After approval from the university ethics committee, a pilot test is carried out for phase one of the research. A briefing prior to the actual semi-structured interviews is used as the pilot testing. Based on the comments received from the briefing, minor adjustments are made to the interview guide.

The qualitative research (phase one) works as a pilot study for the quantitative research (phase two), since the key areas for the quantitative phase are refined by the qualitative phase. However, after the second ethics approval for quantitative data collection, this research conducts a pilot test on a small number of respondents (carried out in July 2019). Assistance from the team of data collectors is pivotal to the success of the pilot test process. Minor adjustments are made from the comments received, although the number of comments received is fairly limited as the presence of the data collector makes the questionnaire clear to understand for the participants.

The final section of this chapter provides a brief discussion on the tools and processes used in analysing the research data from both phases.

The next sections discuss tools used for qualitative and quantitative data management and analysis in this research.

## 4.6 Data collection instruments

### 4.6.1 Phase one instrument (semi-structured interview)

The literature review and discussion of context are fundamental in designing the research instruments for phase one. The semi-structured interview questions address the themes of the conceptual framework this research develops. A sample of the developed interview guide is presented below with justification of inclusion of questions/sections.

#### ***Phase one (Qualitative) semi-structured interview questions***

##### *General information*

Respondent's category	Current researcher	Academic	Government official	NGO	Focus group of consumers
Respondent's institution	Research institution	University	Government institution	NGO	Does not represent any institution
Expected length of session	20-25 minutes	25-30 minutes		Over 30 minutes	
Primary goal of session	In-depth understanding of the objectives		In-depth understanding of awareness		

##### *Semi-structured interview questions*

#### **Theme: Entrepreneurship**

SL no	Question	Structured follow-up questions
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01	Could you briefly introduce the child food (0 to 14 years) industry of Bangladesh?	<ul style="list-style-type: none"> <li>• How large (financial and size) is the industry, based on information available to you?</li> <li>• Proportion of product produced in the country against proportion of imported items.</li> <li>• Proportion of entrepreneurs in the industry who are operating for less than 10 years.</li> <li>• Concerns in the industry.</li> <li>• Strengths in the industry.</li> <li>• Impact of the developing economy on the industry.</li> </ul>
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**Theme: Entrepreneurial behaviour**

Question	Structured follow-up questions
02	<p>How common is 'addition of extraneous matter' (e.g. water to milk or sand to food grains) by businesspeople to adulterate food in the child food sector of Bangladesh?</p> <ul style="list-style-type: none"> <li>• Compared to the past has the rate increased in recent times?</li> </ul>
03	<p>How common is 'use of prohibited dyes and preservatives' (e.g. colouring spices or non-edible colour in ice-cream) by businesspeople to adulterate food in the child food sector of Bangladesh?</p> <ul style="list-style-type: none"> <li>• Compared to the past has the rate increased in recent times?</li> </ul>
04	<p>Can you compare the methods in question 2 and 3?</p> <ul style="list-style-type: none"> <li>• Which one is more commonly used?</li> </ul>

**Theme: Ethics**

Question	Structured follow-up questions
05	<p>What are the main drivers for the businesspeople in the child food industry?</p> <ul style="list-style-type: none"> <li>• To operate ethically</li> <li>• To operate unethically</li> </ul> <ul style="list-style-type: none"> <li>• To operate ethically               <ul style="list-style-type: none"> <li>○ How cost-effective is their operation?</li> <li>○ Is it possible for other entrepreneurs to follow their strategy easily? And why?</li> </ul> </li> <li>• To operate unethically               <ul style="list-style-type: none"> <li>○ Whether their operation is very cheap to execute?</li> <li>○ Whether their operation supports them in financial gain?</li> </ul> </li> </ul>
06	<p>How effective do you believe are the rules, regulation and practices imposed by the authorities on the industry?</p> <ul style="list-style-type: none"> <li>• Whether the authorities are happy with the impact the rules and regulations are having on the entrepreneurs of the industry?           <ul style="list-style-type: none"> <li>○ Whether the authorities are in the impression that the current rules, regulations and practices are adequate/appropriate for the industry?</li> </ul> </li> </ul>

- Whether the entrepreneurs are happy with the impact of the rules and regulations on their operations?
  - Whether the entrepreneurs are in the impression that the current rules, regulations and practices are adequate/appropriate for the industry?

**Theme: Innovation**

	<b>Question</b>	<b>Structured follow-up questions</b>
<b>07</b>	Is there any business model, good practice or framework in the industry where businesspeople can be linked to share and encourage productive entrepreneurship?	<ul style="list-style-type: none"> <li>• If there is an existing example of good practice, how convenient is it for other businesspeople/entrepreneurs to find and follow them?</li> </ul>

The semi-structured interview guide begins with gathering general information about the interview participant, without capturing any personal identifier. The aim of collecting this information is to facilitate qualitative data analysis.

Questions under the theme of entrepreneurship are included to gather information relating the industry selling food to children. The section aims to capture information addressing characteristics of the industry, such as its strengths and weaknesses.

The questions included under the theme entrepreneurial behaviour aim to capture in-depth knowledge relating to adulteration practices suggested by the available literature and to lead to an understanding of the motives behind such behaviour.

The theme of ethics in the semi-structured interview guide aims to capture in-depth knowledge relating the drive entrepreneurs have to operate either ethically or unethically. Moreover, this section also aims to generate knowledge on the impact of the components of institutional pillars.

The final theme of the interview guide aims to generate knowledge on innovative practices within the industry. Good practices, innovative business models and frameworks are within

the scope of this enquiry. The section also accommodates information relating to transferrable innovative practices from other industries.

#### 4.6.2 Phase two instrument (questionnaire)

The findings from phase one data are analysed thematically following Strauss and Corbin's grounded theory protocols. The key findings are then considered in constructing the questions for the questionnaire used at phase two. Theoretical underpinnings are pivotal in the question construction process. A table (Table 5.1) demonstrating the transition and connection between the two phases of this research is included at the end of chapter five ('Qualitative findings and analysis'). A blank questionnaire is attached in Appendix 1b.

### 4.7 Data analysis tool

This research uses NVivo software as the tool to manage and aid analysis of the qualitative data captured in phase one. The following section provides a brief discussion on the tool and process this research uses.

#### 4.7.1 Phase one tool: NVivo

According to Zamawe (2015), NVivo has evolved to become important in qualitative data analysis. Zamawe compares other tools available for qualitative data analysis and says NVivo saves researchers from 'time-consuming' transcription and posits that accuracy is also increased. Zamawe's comparison confirms that qualitative data analysis tools, including NVivo, have limitations, as data analysed using data analysis programs may not be entirely accurate. Thus, Zamawe recommend researchers not to rely on the software to analyse the qualitative data; rather the software should be used more as a tool to manage the qualitative data supporting the researcher's analysis process. This research utilises NVivo as a tool to aid analysis.

The following sections address the steps taken in using NVivo.

### **Transcribe and add data sources to NVivo**

In step one, interview records are transcribed from their written notes and/or audio recordings and transferred to Word document format. Subsequently the transcribed interview notes are imported to NVivo creating a project.

### **Create thematic nodes for coding**

In step two, thematic nodes are created for the transcribed data to be categorised. The nodes are themed against the research objectives. This research reviews Glaser's (1978) classic grounded theory, Strauss and Corbin's (1990) qualitative data analysis (QDA) (also referred to as the Straussian grounded theory), Charmaz's (2000) constructivist grounded theory and Wuest's (1995) feminist grounded theory (Evans, 2013). Straussian grounded theory is found to be more structured and uses a rigid coding structure and incorporates analysing relationship of categories through hypotheses (Evans, 2013; El Hussein et al., 2014). Considering these advantages this research uses Strauss and Corbin's (1990) grounded theory technique.

### **Code data using thematic nodes (first order coding)**

In step three, transcribed data are taken through first order coding. Each sentence of the transcribed data is reviewed and highlighted according to the thematic nodes of this research.

### **Organise node hierarchies for coding**

In step four, the process of the first order coding looks at the hierarchy of the nodes and organises them according to the concepts (theme) of this research. Once the nodes are managed against themes, they are easier to analyse. This ensures control over the analysis and the analysis process is accurate. Tables 4.3 to 4.6 present the nodes and their hierarchy used in the first order coding to identify patterns from the interview responses.

Table 4.3 presents the nodes and codes used in first order coding for theme one (entrepreneurship). The codes are broken down and distributed over five levels of nodes considering their relationship. Level one nodes are the broader themes where the responses are captured. Level one nodes are further narrowed down to precise areas of responses using further levels of associated nodes. For instance, for the entrepreneurship concept, the theme 'size of industry' could be narrowed down up to level five, whereas other themes receive responses up to level four. The theme of 'concerns in the industry' is narrowed down to more categories of responses compared to other themes under this concept. Finally, using seven themes for concept one, the semi-structured interviews are coded 112 times at five node levels.

Table 4.3: Theme one nodes used in first order coding

Concept	Level 1 nodes	Level 2 nodes	Level 3 nodes	Level 4 nodes	Level 5 nodes
Concept 1: Entrepreneurship	Impact of developing economy	Economic imbalance	Affordability	Above middle class have choice	
				Below middle class do not have a choice	
		Difficult to keep price low	Farmers are not benefited		
		Government intending to support innovative entrepreneurs	Compromising child food quality		
		Influence of unemployment	Training available		
	Easy to enter industry				
	Strengths in the industry	Started being honest	Regulations forced them to be honest		
		Changes are taking place	Home cooked meals for children		
			Better ethics		
			Complying with BSTI regulations		
		Improvements in recent time	Cookies		
		Rapid growth	New jobs		
			Informal sector		
		Influencing growth of economy			
		Availability of consumers			
		Large scale entrepreneurs provide quality			
	Food in affordable price	Consumed quick reduce risk			
	Concerns in the industry	No domestic manufacturer			
		Mainly small entrepreneurs			
		No fair competition	Ethical entrepreneurs struggling		
		Food habit	Consumer awareness		
		Contamination	6 months to 2 years		
			Working parents		
		Poor ethics	Not being honest		
			Synthetic food		
		Adulteration	Raw materials and adulterated		
			Consistency of information		
			Not only SMEs		
			No structure	Rotation and date	
		Standard is poor		Storage	
		Over population	Increasing health risk		
		Awareness		Increase in health pardons	
			Demand supply imbalance		
			Dust		
	Hygiene				
	Pollutions				
	Knowledge				

		Ineffective regulatory framework	Bribing practiced		
			Floating entrepreneurs		
			Monitoring system		
Proportion of entrepreneurs operating for less than 10 years		Largest in the sector			
Proportion of products imported in the country		Dependent on imported items for safe child food			
		Large investors mostly import raw materials			
		Some imported items are adulterated	BSTI is unable to regulate illegal imports		
Proportion of products produced in the country		Cannot rely or trust on domestically produced child food			
		Entrepreneurs are producing street food			
		Mostly small-scale entrepreneurs			
		Some large investors	Growing		
Size of the child food industry		School going children are having street snacks			
		Ethical unethical and unaware entrepreneurs			
		Different food habit			
		Large industry	Informal industry is bigger	Mostly small scale	Children are consumers 200000 to 250000
			Difficult to measure total size		
			Internal raw materials		
			Imported raw materials	Sweeteners	
				Food colour	
			Synthetic vs non synthetic food		
			Large population		
	Categories rural and urban				
	6 months to 2 years				

Table 4.4 presents nodes used in analysing data relating to the ‘entrepreneurial behaviour’ theme (two), where data are narrowed down to two levels. Ten themes are used in level one, where ‘use of prohibited dyes and preservative is a common practice’ is narrowed down to more categories in level two. Finally, using 10 themes for concept two, the semi-structured interviews are coded 87 times at two node levels.

Table 4.4: Theme two nodes used in first order coding

Concept	Level 1 nodes	Level 2 nodes
Concept 2: Entrepreneurship and Development	Addition of extraneous matter is a common practice	Common in rural area
		Mostly SMEs
	Addition of extraneous matter is not a common practice	
	In comparison addition of extraneous matter is more commonly used	
	In comparison use of prohibited dyes and preservatives are more commonly used	
	Rate of addition extraneous matter has decreased	Customer trend changed
		Imported items are concern
	Rate of addition extraneous matter has increased	Ineffective regulatory body
		It's a norm
		Lack of knowledge
	New techniques of adulteration	
Use of prohibited dyes and preservatives are more harmful		
Use of prohibited dyes and preservatives has decreased		
Use of prohibited dyes and preservatives has increased	Chemical use	
	Increased preservative used	
	New techniques of adulteration	
	Customers have lack of awareness	
Use of prohibited dyes and preservatives is a common practice	Entrepreneurs have lack of awareness	
	Entrepreneurs have lack of knowledge	
	Intentional	

Table 4.5: Theme three nodes used in first order coding

Concept	Level 1 nodes	Level 2 nodes	Level 3 node
Concept 3: Ethics	All entrepreneurs are not dishonest		
	Authorities are happy with the impact of rules and regulations	CAB is having an impact	
		International standards	
		More awareness needed	All products require BSTI approval
		Scenario is improving	BSTI stamping more products Expiry date
	Authorities are not happy with the impact of rules and regulations		
	Authorities think current rules and regulations are adequate		
	Authorities think current rules and regulations are not adequate	Addition of new mechanism needed	Licencing mechanism Need to bring SMEs under regulations Out of date items
		Bureaucratic structure	
		Lack of equipment	
		Lack of manpower	
	Awareness need to improve	Poor communication	Only with large corporations Young entrepreneurs are ignored
		Avoid chemical-based food	
		Awareness will improve situation	
	Drivers to operate ethically	Social awareness requires improvement	Community development
		Knowledgeable	Internet
			Travelling overseas
			TV
		Competition	
		Goodwill	
		Improved awareness	
		Norm value moral	
		Profit with better planning	
Research based approach			
Role of government			
Drivers to operate unethically	Ignorance	Adulterated raw materials	
	Poor monitoring structure	Lack of manpower	
	Profit making	Questions on regulatory body	
	Lack of awareness	Low quality materials	
	Lack of education		
	Low moral		
	Short term business		
Entrepreneurs are happy with the impact of rules and regulations	Regulations are welcomed by ethical entrepreneurs	Fair platform for competition Few cases of wrongdoing reported	

	Entrepreneurs are not happy with the impact of rules and regulations	Entrepreneurs with limited investments Regulations are not welcomed by unethical entrepreneurs They don't care much	Not licenced	
	Entrepreneurs think current rules and regulations are adequate			
	Entrepreneurs think current rules and regulations are not adequate	Financial penalty is not strong enough		
	It is cost effective to operate ethically	If planned well		
	It is not cost effective to operate ethically			
	Main drives for the businessmen	Owners not employees Profit		
	Other entrepreneurs can follow ethical operations easily			
	Other entrepreneurs cannot follow ethical operations easily	More expensive compared to unethical practice Struggles for a growth against financial gain of unethical entrepreneurs		
	Time needed for the rules and regulations to have an impact	Operating old school thoughts		Norms values religion
	Unethical operation is cheap to execute	Illegal imports Low quality ingredients		
	Unethical operation is not cheap to execute			
	Unethical operation does not give financial gain			
	Unethical operation gives financial gain			

Table 4.5 shows the nodes used in first order coding for the third theme, 'ethics'. 'Drivers to operate ethically' and 'drivers to operate unethically' are narrowed down to more categories compared to other themes used in level one. These two themes are important, as they have associated research questions for this research to answer. Finally, using 22 themes for concept three, the semi-structured interviews are coded 148 times at two node levels.

Table 4.6 shows the nodes used in first order coding to manage and analyse responses against the fourth theme of ‘innovation’. A total of six themes are used in level one, where ‘existing business model of productive entrepreneurship’ is narrowed down to more categories compared to others. Finally, using six themes for theme four, the semi-structured interviews are coded 37 times at three node levels.

Table 4.6: Theme four nodes used in first order coding

Concept	Level 1 nodes	Level 2 nodes	Level 3 nodes
Concept 4: Innovation	Entrepreneurs can easily find and follow productive entrepreneurship		
	Entrepreneurs cannot easily find and follow productive entrepreneurship	Demand-supply imbalance	
		Need structure of education	
		Do not have financial ability	Organic food
	Existing business model of productive entrepreneurship	Lack of awareness	
		Local ingredients	
		Milk vita	
		Organic food	
		Outsourcing	Risk of outsourcing
		Online platform	Facebook groups
	Existing framework for productive entrepreneurship	Agro bish mukto utpadon	
	Existing good practice of productive entrepreneurship	Expensive for customers	
		Formal industry	
Jatra			
	Need mechanism to recognise	From any industry	
Opportunity is there			

In summary for first order coding, the 13 semi-structured interviews are described against four concepts, where a total of 46 themes are developed using 384 coding instances at five different nodes levels.

### Second order coding

Once the nodes are organised against the themes, a test using NVivo is executed to generate reports of the imported transcribed interviews that have been through first order coding. This process generates 71 key findings. Key findings from the second order coding are presented in chapter five.

The second order coding guides this research to identify a relationship between the variables of the objectives and a platform to create a questionnaire for quantitative data collection with entrepreneurs operating in the industry selling street food to children in Bangladesh.

### Third order coding

Key findings are coded with third order coding to further narrow down the results. This analysis guides the research towards the ultimate findings from the qualitative phase. With third order coding this research establishes relationships between the variables and develops a number of models, presented in chapter seven ('Analysis').

The next section briefly discusses the process taken by this research in using SPSS software to manage and aid analysis of quantitative data.

#### 4.7.2 Phase two tool: SPSS

This research uses interview surveys (questionnaire) to capture quantitative data and the data are used for findings, analysis and discussions. The entire process in chapters six and seven is managed using SPSS (Statistical Package for Social Science). The following section provides the basic steps this research uses in processing and managing the quantitative data with the intentions of analysing them subsequently.

The questionnaire includes 43 questions, addressing the four objectives of this research complemented by one additional section capturing general information of the industry. Cross-tabulation, chi-square test and regression analysis are performed with the variables using SPSS.

The next sections briefly explain the SPSS process this research utilised.

### Use of SPSS commands (data view and variable view)

In the first step the research creates the interface within SPSS to host the data. Using the 'Variable view' tab, the fields are created and responses for each of the questionnaire questions are recorded. This is one of the most important steps in using SPSS for this research, as any error would be difficult to correct once all data are recorded. Furthermore, if errors are made in this step, this research would result in incorrect findings. To mitigate any possibility of error, the interface where data is captured is reviewed several times and an SPSS expert is consulted for advice. All mitigation steps are taken prior to the data being imported in the datasheet.

### Import data into SPSS

The interview survey captures data on paper-based questionnaires. The captured data is imported manually into the 'Data view'. This step is a basic clerical exercise, where responses are simply recoded on to an SPSS datasheet.

### Retrieve results

Once the imported data set is complete, this research retrieves results from the data compilation. At this stage, the research retrieves the results in frequency and cross-tabulation format only. Major results derived from the cross-tabulation exercise are presented in chapter six and the remaining cross-tabulations and frequency tables are included in Appendix 4.

### Analyse the graphs, charts and tests

The final step taken in SPSS is to generate graphs and charts and run tests to analyse and discuss the study findings. The graphs and charts are presented in chapters six and seven. Chi-square tests show the relationship between the variables of the objectives and regression analysis is executed to test the hypotheses of the research. Results from chi-square tests and regression analysis are included in chapter seven.

## 4.8 Concluding remarks

The main intention of this chapter is to showcase the details of the methodological underpinnings this research adopts. The adoption of a mixed-method approach may have increased methodological

and data-related work and brought in some complexity, yet it was important to adopt both considering the nature of sensitivity this research deals with.

The following four chapters address the findings, analysis and discussion this research generates.

The qualitative findings are presented in the next chapter.

## Chapter five: Qualitative findings and analysis

### Introduction

This chapter presents the qualitative findings and analysis from phase one of the research. In arriving at these findings, NVivo is used as a tool to manage and facilitate the qualitative data. The analysis of qualitative findings follows coding structure guided by Strauss and Corbin's (1990) grounded theory procedures in a thematic analysis. Flowchart 5.1 shows the developmental phases of the coding structure utilised in the research. Qualitative findings guide this research in developing the instrument (questionnaire) to capture quantitative data at phase two.

Flowchart 5.1: Coding structure

Qual Interviews on Concepts	1 <sup>st</sup> order coding	Outcome	2 <sup>nd</sup> order coding	Outcome	3 <sup>rd</sup> order coding	Outcomes
1. Entrepreneurship	Coding on the interview transcripts	Baseline qualitative findings	Using the variable of the objectives 2 <sup>nd</sup> order coding on baseline findings	71 key findings	3 <sup>rd</sup> order coding on the 71 key findings considering variables of the concepts and objectives	i. Questionnaire development for quantitative data collection ii. Relationship between variables of research objectives
2. Entrepreneurship & Development						
3. Ethics						
4. Innovation						

The research uses 13 semi-structured in-depth interviews to capture the qualitative data. The participants in phase one represent the formal institutions who provided insight into Bangladesh's food industry. The qualitative findings and analysis are presented in the sequence of the themes as they emerge in phase one (qualitative), which are as follows:

#### Theme: Entrepreneurship

This theme addresses the overall status of the food industry, with special attention to food sold to children. It also investigates productive, unproductive and destructive entrepreneurial behaviours.

#### Theme: Entrepreneurial behaviour

The theme of entrepreneurial behaviour discusses the development of food adulteration practices. Motives of the practices are investigated.

**Theme: Ethics**

Here, the role of institutions in influencing the entrepreneurial behaviours of food vendors is discussed. This includes a debate on formal versus informal institutions.

**Theme: Innovation**

The final emerging theme aims to identify existing innovative approaches within the food industry and wider industry examples. Innovation in new product development and process development are considered.

In phase one, a total of 13 remote semi-structured interviews are conducted, three of which are conducted with academics with a specialisation in food nutrition and hygiene. These academics serve as advisers to the Bangladesh government's regulatory bodies, such as the Ministry of Food and the Bangladesh Standard Testing Institute. A further three semi-structured interviews are conducted with government officials representing regulatory bodies. Another three interviews are conducted with NGO officials, who actively work in the area of food safety and food adulteration. Two interviews are conducted with researchers who work for international research institutions based in Bangladesh and are working on child health and food safety concerns. Finally, two focus group semi-structured interviews are conducted with 11 customers of food sold to children, where participants represented different backgrounds: for instance, medical practitioners, businesspeople, homemakers and full-time and part-time employees. No children participated at any phases of this research.

The following section presents the qualitative findings and analysis linked to the theme of entrepreneurship.

**5.1 Theme: Entrepreneurship**

In investigating the theme of entrepreneurship, this research explores the following areas: introduction to the street food selling industry to children in Bangladesh, approximate size

of the industry, the impact of the developing economy on the industry, a comparison between the proportion of products produced and importance in the industry, concerns and strengths in the industry, and identifying entrepreneurs who have operated for less than 10 years in the industry.

In analysing the qualitative data, this research generates response maps for each theme, where factors associated with the theme are identified in accordance with the first order coding. The response maps do not have any significant influence on the findings and their analysis; rather they aid this research to understand the association of the factors with the concepts and objectives. The response maps are included in Appendix 5. The following sections discuss the sub-themes as they surface within the theme of entrepreneurship.

#### 5.1.1 General information of the industry

When participants are prompted to provide responses on the size of the industry selling food to children in Bangladesh, the majority of the participants stated that the size of the informal industry is significant. From the responses, this research realises that a number of classifications and categories are used in this industry to differentiate the businesspeople operating within. However, participants could not provide an approximate number as to the size of the Bangladesh or Dhaka's informal street food selling industry. They simply responded by stating that *'It is difficult to measure the total size of the industry'*.

Qualitative findings highlight four issues within the industry: a) ease of entry; b) absence of systematic data collection and possibly no database; c) no monitoring system; and d) mix of formal and informal businesses. More specifically, an interviewed government official at phase one states:

*'a) But unfortunately, I am not aware of any database which will provide you with an accurate number.'*

*b) We do not have a system to monitor these small and medium scale entrepreneurs effectively, that is the main concern.'*

On the same issue, an NGO representative at phase one states:

*'It is very difficult to identify the total size of this whole industry, including both formal and informal businesses.'*

Reviewing these issues, key finding 1 is developed and presented below:

***Key finding 1: There is no mechanism to recognise and monitor the businesses and small and medium-scale entrepreneurs in the industry selling food to children in Bangladesh.***

Direct extracts (transcripts) from the interviews with government officials and NGO representatives show that the informal sector is larger compared to the formal food industry. A government official states:

*'There are two types of businesspeople in this industry. One operates formally, and the others operate informally. However, the informal industry is larger compared to the formal one.'*

The interviews find there is no recognised classification for businesspeople and entrepreneurs in the street food selling sector. Multiple participants classified the industry into two categories: formal and informal. The formal category recognises all the established businesspeople or large investors who have operated in the food industry for a significant time, while the informal category refers to all the small and medium-sized entrepreneurs. In most cases, these entrepreneurs are not regulated or licensed to operate in the food selling industry. The participants suggested that the street food selling industry is larger than formal industry (key finding 2). Evidence of this claim is found from the NGO representative interview:

*'To some extent it (informal sector) is larger than the formal sector.'*

***Key finding 2: The informal industry is larger in comparison with the formal industry.***

The next section discusses the theme of entrepreneurship focusing on the strengths of the industry.

### 5.1.2 Strengths of the child food industry

When participants are requested to provide their opinions on the strengths of the industry selling food to children, some participants revealed significant strengths which they could capitalise on to develop the industry in the future. Offering food at affordable prices, influence on the growth of the economy, and availability to customers are some of the strengths. The specific strengths are elaborated on in the response map presented in Figure 5.4 in Appendix 5.

There are a number of notable strengths that deserve attention. First, a number of participants claim that changes are taking place in the industry and those are positive signs. Phase one provides evidence that there is improvement in an area of the food sector that is popular among children: cookies/biscuits. Increased involvement of younger and innovative entrepreneurs in the street food selling industry is also revealed. In addition, improved ethics from the young entrepreneurs is found to be a strength. Additionally, the participants claim many entrepreneurs are now trying to comply with government regulations, specifically, the regulations set by BSTI.

Furthermore, the research findings reveal a rapid growth in street food vendors is identified by the participants as another strength of this industry. Many entrepreneurs are entering this industry and creating new employment opportunities. Unemployment is an ongoing concern for the growth of the economy and the growth of the street food selling industry is helping alleviate this problem.

It is important to record that the research finds the informal street food selling industry is experiencing better growth compared to the formal food industry. As the small and medium-scale entrepreneurs are offering food at lower prices, their items are more affordable to people from all sections of the Bangladesh economy. Observations about growth from interviews with government officials and NGO representatives are listed below.

A government official states:

*'It is very convenient for people of all economic statuses to source food. Children have access to food items, growing up we did not have access to those foods.'*

An NGO representative claims:

*'Availability of food in a more reasonable price, particularly for middle to lower income population. Additionally, children can afford food offered by the small-scale entrepreneurs comfortably.'*

Bangladesh is experiencing growth in the economy, where a large proportion of the population lives below the poverty line; the street food retailers from the informal industry contribute positively towards the growth of the country's economy. One NGO representative states:

*'It (informal sector) is positively influencing the growth of the economy.'*

Due to the socio-economic status of the majority of the population, the retailers of the informal industry find customers easily. For this reason, retailers are becoming interested in entering the informal street food industry. Overall, the phenomenon is supporting the growth of the Bangladesh economy. On rapid growth of the informal street food sector, one NGO representative claims:

*'Food industry is a very rapidly growing industry. So it is positively influencing the job sector, through creating employment opportunities.'*

It is evident that the informal industry is contributing towards the formal growth of the economy, but the impacts of formal regulations (and institutions) on the street food selling industry are not evidenced. Successful attempts are made in phase one of this research to record evidence of the impact of regulations on the street food industry. It is clear from responses that the regulations are having an impact on businesses in the formal sector and that formally registered businesses are following the regulations because of the need to comply with them. Impact of regulative institutions on the food industry is evidenced in the interview with a researcher currently working on safe food. The researcher states:

*'Aspects in relation for nutrition for this category (child food) is considered and covered in Bangladesh and recognition of rules and regulations is also there. Large scale entrepreneurs do not compromise when it comes to child food.'*

Furthermore, impact of regulative institutions on the entrepreneurs is also evidenced in the focus group interview:

*'Only after paying a penalty from the government. This change is recent.'*

Reviewing and analysing these findings, the following key findings are generated:

***Key finding 3: Street food is offered at an affordable price.***

***Key finding 4: Introduction of regulatory bodies has made some impact mostly on formal (registered/licensed) businesses.***

***Key finding 5: Potential productive entrepreneurs are affected by unproductive or destructive entrepreneurs.***

***Key finding 6: Some sections of the food industry have evidenced significant improvements and can be potential examples of innovative entrepreneurship.***

The next section introduces an analysis of concerns associated with the street food selling industry.

### 5.1.3 Concerns in the industry selling street food to children

In accumulating opinions, this research observes a number of areas where emphasis is given regarding the concerns of the industry. The key areas of concern are: adulteration; awareness; poor ethics; food habits of the consumers; and ineffective regulatory framework (Figure 5.5, Appendix 5).

Furthermore, this research finds that the majority of participants state that raw materials used in the street food selling industry are adulterated. As a result, even if the entrepreneurs do not have any intention to adulterate food, their end products are becoming adulterated by poor-quality raw materials. On poor raw material, a government official at phase one states:

*a) 'The raw materials or processed items he is getting from the market is already adulterated.'*

*b) 'The source for their raw materials is corrupt and involved in adulteration, hence even with an ethical intent they end up serving adulterated child food.'*

Moreover, concerns with food rotation and expiry dates are also communicated by respondents. Although this research finds that entrepreneurs have started using expiry dates on food items, the concept is still not consistent among entrepreneurs. According to several respondents, inadequate storage is also contributing to adulteration practices in the industry. Islam et al. (2017), Faruque et al. (2010), Dey (2004) and Ahmed (2000) report it is a common practice and expectation among the small and medium entrepreneurs to have longer shelf life of the food items they are producing. As they do not have adequate and appropriate storage facilities, they are using chemicals to extend shelf-life of the products. This research identifies that large-scale businesses are also involved in some sort of adulteration. The inconsistency of information provided to businesspeople and entrepreneurs may well be a reason behind this concern.

More concerns with poor or inferior raw materials are recorded at interviews with academics, focus groups and government officials. Some extracts from the interview scripts relating concerns with adulterated raw materials in street food preparation are introduced below:

Extracts from interview with the academic:

- a) *'The oil they are using, they are not filtering or changing them regularly.'*
- b) *'They are using burnt oil regularly and the question can be asked, whether this can be categorised as adulteration.'*
- c) *'The other concern is use of sweeteners. This is very bad for health. Entrepreneurs use these sweeteners because they are cheap compared to real sugar.'*
- d) *'Looking at the price, they are not likely using food colours. I don't think this act is lack of awareness rather this is an act of adulteration.'*

Based on the above observations of concerns relating to the street food industry of Dhaka, Bangladesh, this research generates the following key findings:

***Key finding 7: Over reuse of oil in the industry selling street food to children in Bangladesh.***

***Key finding 8: Use of sweetener instead of sugar.***

***Key finding 9: Raw materials are contributing to adulteration for those who are intending to operate ethically or productively.***

***Key finding 10: Use of textile colour instead of food colour.***

Alongside capturing information on adulteration practices in raw materials in the production of the street food items, this research investigates overall status of adulteration within the industry in concern. In response to this query, I received some crucial information. For instance, an interview with an NGO representative informs that, alongside adulteration, there are concerns about pollution in the child food industry.

The NGO representative states:

*'We have instances of adulteration and pollution.'*

Concerns relating to use of formalin and other preservatives are also recorded at the interview with academics:

- a) *'Because of the formalin concerns. There are stories of fish and fruits having very long shelf-life for formalin.'*
- b) *'The other known adulteration issue is with vegetables. Farmers use pesticides just before harvesting the food. So that while transporting the vegetables from one place to another the harvest is not wasted by insects or pest attacks.'*

Moreover, an interview with a government official informs this research that storage facilities and lack of awareness on how to rotate food effectively is also a concern in the industry:

- a) *'Usually food left over for longer period, which contributes towards food adulteration.'*
- b) *'Enterprises in this industry do not have appropriate food storage facilities.'*

Additionally, the government official also confirms alongside the small-scale retailers that some large-scale businesspeople are also involved in these poor practices:

*'Small-scale entrepreneurs and even large-scale businesses who are selling fried items use the same oil for very long time, for so many days.'*

Reviewing the interview extracts from the above sections, the following key findings are generated:

***Key finding 11: Alongside adulteration, pollution is a concern.***

***Key finding 12: Inconsistency of information for both entrepreneurs and consumers.***

***Key finding 13: Use of formalin to preserve food.***

**Key finding 14: Use of preservatives to preserve food.**

**Key finding 15: Food items are not rotated according to their expiry date.**

**Key finding 16: Food storage for entrepreneurs is a concern.**

**Key finding 17: Established businesspeople are also involved in food adulteration to some extent.**

This research identifies four major areas of awareness concerns existing among the entrepreneurs selling street food to children. The four major areas of concern relating to awareness are: dust, hygiene, knowledge and pollution. Among these, pollution is the major area of awareness concern. In addition to awareness and adulteration concerns, this research identifies other areas of concern in the industry selling street food to children, namely: ineffective regulatory framework and poor ethics among the businesspeople.

Observations at phase one on pollution, hygiene and dust are recorded at interviews with NGO representatives, academics and at the focus group.

Regarding pollution and hygiene, the NGO representative states that:

- a) *'There are some unconscious activity that is polluting the food.'*
- b) *'Another major concern is food hygiene in Bangladesh and this is overlooked very often. Most of the restaurants and hotels do not meet the food hygiene standards. If you visit their kitchen once, you will not eat there a second time. Entrepreneurs who are selling liquid milk, you need to question their hygiene standard.'*

On concerns with pollution, an academic states:

*'Some entrepreneurs who are selling child food on the street are not covering the food properly. This is more often an act of lack of awareness.'*

Concern with food hygiene was also raised at the focus group interview. The extract below informs:

*'We are fond of external food or street food and hygiene is a factor in those cases.'*

The derived key findings from the above observations are listed below:

***Key finding 18: There is a lack of awareness of food pollutants among street food entrepreneurs.***

***Key finding 19: Awareness of food hygiene is very low among small and medium-scale entrepreneurs.***

The above sections highlight concerns regarding a lack of awareness. Respondents' concerns regarding poor ethics among the street food retailers are reported. In the next section, respondents' concerns about poor ethics which are important for the improvement of the overall street food industry are registered.

The NGO representative highlighted that entrepreneurs operating at a small scale are expecting high returns from their low investment, which could potentially be a concern. A direct quote from the interview is included below:

*'We have a large group of entrepreneurs who are operating on a small scale and comparatively with low investment are expecting high return.'*

Alongside this, interviews with an academic inform of concerns about adulteration practices with the use of sweeteners and poor-quality raw materials. Direct quotes from those interviews are provided below:

- a) *'It has also been reported that many entrepreneurs use Mobil instead of cooking oil when frying snacks. Because if they are fried in Mobil, the snacks will remain crispy for longer time.'*
- b) *'It has also been reported the mayonnaise used in burger and sandwich preparation are not the actual mayonnaise we expect. In most cases they are made of unhealthy fat.'*

- c) *'The entrepreneurs in the child food sector are not using regular sugar; rather they are using some sort of sweetener which is hazardous to child health.'*

Moreover, a government official and the focus group inform this research that there is a tendency in the industry to hide information on ingredients used and to provide false information.

The government official states:

- a) *'Hiding important information about ingredients.'*
- b) *'In many cases the sellers are saying the child food item is imported, but in reality, the food is actually made within the country.'*

And the focus group says:

*'Previously all local businesses used to sell juice drink, claiming this is juice.'*

The above phase one interviews provide alarming information, although some concerns were known and discussed in the literature review chapter. For example, use of automotive oil or inferior quality oil to fry snacks has been reported by Al Mamun et al. (2013) and Anam (2012b). However, some concerns were unknown to this research beforehand, like hiding key information of ingredients used in production of the food items. Based on the findings reported above, this research generates the following key findings:

***Key finding 20: Entrepreneurs hide information of ingredients used.***

***Key finding 21: Local products are sold as imported.***

***Key finding 22: Sweeteners, inferior quality oil and unhealthy fats are used in producing street food for children.***

When participants are requested to comment on their concerns for the industry, in a number of instances concerns regarding ineffective regulation or ineffective regulatory frameworks are mentioned. Interviews with NGO representatives inform the following:

- a) *'I am not aware of any regulation.'*
- b) *'Due to low control and awareness, health risks are in the high.'*
- c) *'The large informal sector is difficult to be addressed by the regulatory structures.'*

When the same issue is discussed at the interview with government officials, the participants confirm:

- a) *'We do not have a system to monitor these small and medium-scale entrepreneurs effectively, that is the main concern.'*
- b) *'The weakness of the regulatory structure is encouraging unethical entrepreneurs.'*
- c) *'The food inspection system is not operating effectively. There are reports of corruption.'*

On the same issue of ineffective regulatory structure, a food researcher informs this research:

*'Bribing is also reported but sanctions or actions are yet to be taken.'*

Key findings include: First, there is no known mechanism or regulation on a new entrepreneur entering the street food industry or the food industry as a whole. Second, corruption – in the form of bribery practices among the regulators – is also reported. Third, poor or absence of appropriate monitoring structures for small and medium-scale entrepreneurs is reported. It is also reported this particular weakness encourages entrepreneurs to be unethical. Based on these descriptions, this research generates the following key findings relating to ineffective regulatory structure:

***Key finding 23: There are no regulations or mechanism for new entrepreneurs when entering the industry.***

***Key finding 24: There is no systematic monitoring structure for small and medium-scale entrepreneurs.***

***Key finding 25: Food inspectors are involved in corruption.***

***Key finding 26: Weak regulatory structure is encouraging unethical practice.***

The next section analyses the qualitative data collected in relation to the context of the developing economy of Bangladesh and relationship with the concerns within the food industry.

#### 5.1.4 Impact of the developing economy

Regarding respondents' opinion on the impact of the developing economy on the Bangladesh street food industry, the responses are linked mostly with economic imbalance. Affordability of the general public is recorded; more specifically it is mentioned that people below middle-class social class groupings are not able to access high-quality food. Conversely, customers from above middle-class economic status do not trust food that can be categorised as safe but sold from the street. This research also identifies that the street food industry is easy to enter for the entrepreneurs and most likely this is due to the absence of regulations and barriers to entry. Although the industry is relatively easy to enter, small and medium-scale entrepreneurs are nonetheless finding it difficult to keep prices low while aiming to produce high-quality and safe food. This particular aspect influences many entrepreneurs to compromise the quality of food sold on the streets of Bangladesh. Needless to say, the practice of keeping prices low has benefited customers from below the middle-class social category.

Finally, this research identifies a co-relation between the rate of unemployment and growth of the street food industry. A participant of this research representing an NGO actively working in the food industry of Bangladesh states:

*'Rate of unemployment has impacted directly in the growth of this sector. In many cases when a person struggles to find employment, they will decide to enter the food business. This is very popular. If I cannot do anything, I will at least sell tea. Floating tea sellers, who sell tea in flask and biscuits or cake on piece of paper. This biscuit or cake is very important to consider, as children are regular consumer of these products. In only 2 taka you will find snacks like bread and patties; and these are consumed by children. I don't have the figure to tell you how many businesspeople are active in this sector, but the number is very large.'*

With regard to responses relating to the impact of developing economy this research finds opinions addressing a diverse range of areas (Figure 5.6, Appendix 5). Below are direct quotes from interviews with NGO representatives, government officials and focus group participants relating to the impact of developing economy and economic imbalance.

NGO representatives state:

- a) *'Price of food is a major consideration for majority people of Bangladesh.'*
- b) *'We need to consider, if the entrepreneurs are maintaining food safety, how much the cost would be for the end product. Whether general public will be able to afford these items.'*
- c) *'If the price of the ice-cream is taka 20, whether the parents of the children consuming the ice-cream can afford it. On the other side, ice-cream that is priced at taka 5 can cause illness and that will cost taka 100 for the parents in medical bills.'*

Whereas the government official informs:

*'Growing economy has a strong influence on industry. But unfortunately, farmers associated with this sector are not benefiting from this growing economy and that may trigger intention of adulteration.'*

Finally, a number of observations are made from the focus group interviews. Extracts from these interviews are as follows:

- a) *'From middle class to upper class families cannot trust these local child food items and others (middle class and lower) do not have a choice.'*
- b) *'The purchasing power of the customers plays a big role in the existence of these items in the market.'*
- c) *'They do not have a taste they should have but very cheap to buy. So, customers are buying them, as they cannot afford the better quality or healthy options.'*
- d) *'There is financial imbalance in the society. That is also influencing the system.'*
- e) *'People from lower middle-class society do not have a choice. The unethical entrepreneurs are utilising this situation.'*

Considering the above observations, this research generates the following key findings relating to the impact of the developing economy on the Bangladesh street food selling industry.

***Key finding 27: Producing street food within affordable prices and with expected standards of safe food is difficult for entrepreneurs.***

***Key finding 28: Below middle-class customers cannot afford safe food.***

***Key finding 29: Unethical entrepreneurs are exploiting the economic imbalance.***

The theme of a developing economy is very closely related to food items and raw materials used in the Bangladesh street food selling industry: a number of items and raw materials are locally sourced, and others are imported. The next section analyses the qualitative data relating to imported versus domestic items.

### 5.1.5 Imported vs domestic items in the street food industry

At this stage, the participants are requested to provide their views on imported and domestic items available in the Bangladesh street food selling industry and this research captures the responses as shown in Figures 5.17 and 5.18 in Appendix 5.

From the responses of participants, it is clear that for safe street food the customers are dependent on imported items. However, some large-scale investors are importing raw materials for street food from overseas and producing the items locally to meet domestic market demand targeted for customers from the above middle-class categories. Nonetheless, some concerns are also communicated about imported items, as some importers are importing products or raw materials illegally and are not monitored by the BSTI and thus do not meet the food safety standards. They are likely to be adulterated once they have entered the market. However, regarding domestically produced products, respondents mostly state that the 'aware' customers cannot rely on or trust domestically produced street food items which are sold to children.

Furthermore, the domestic market is dominated by small-scale entrepreneurs who are mostly involved in the production of street food and are considered to belong to the informal industry. In the 'concern' section it is communicated that there is no recognised manufacturer of street food in the country. The formal industry, however, is experiencing growth alongside more large-scale entrepreneurs entering the market. Direct quotes from the respondents regarding imported items are presented below, followed by associated key findings.

An NGO representative informs:

- a) *'Local markets may supply overseas ingredients to these businesspeople. But these raw materials can increase adulteration possibilities, even if the small-scale businesspeople did not have the intention to adulterate the food.'*

A researcher working on food safety in Bangladesh claims:

- a) *'BSTI authority checks food samples from every batch. However, child food brought into the country through personal consignment and luggage may not meet the BSTI standard and they are widely available in the market.'*

A focus group participant states:

- a) *'Still people find imported items are more reliable compared to those produced within the country.'*
- b) *'A lot of fruit items are now available in the market, which are adulterated in this process; some are also imported.'*

**Key finding 30: The regulatory mechanism is not effective against illegal imports of food.**

**Key finding 31: Customers rely on imported items for safe food.**

Similarly, respondents' quotes regarding domestic items sold in the Bangladesh street food industry are shown below, followed by two further related key findings.

An NGO participant informs:

*'People who are involved in food production for the child food sector in Bangladesh are mostly small-scale businesspeople.'*

A focus group participant states:

- a) *'We have food that can be purchased on the street. Mostly snacks and local entrepreneurs are involved in these businesses.'*

*'The majority of the child population are consuming food items from local vendors.'*

**Key finding 32: Small-scale entrepreneurs are mostly operating in the industry selling street food to children in Bangladesh.**

**Key finding 33: The majority of children are consuming food produced by local entrepreneurs.**

In analysing the findings relating the theme of entrepreneurship in the informal street food selling industry, emphasis is given to the concerns about street food sold to children in Bangladesh. First, there are concerning issues in the street food selling industry, namely food production and its management. Use of formalin, sweetener, textile colours, preservatives and inferior raw materials are all related to food production. Ineffective use of expiry dates and falsifying branding can be considered concerns both at production and management levels. Second, the informal industry is showing more concerns than the formal industry.

Moreover, analysis shows locally sourced ingredients to be the main ethical practice identified for the Bangladesh street food selling industry as this practice has the potential to reduce the risk of food adulteration. Furthermore, findings show that an online platform for retailing street food is the main innovative approach for the industry. Additionally, cookies (biscuits) production for children is reported as innovative and good practice in the industry selling street food to children in Dhaka, Bangladesh.

Finally, the interviews at phase one also investigate factors which contribute towards unproductive practices in the industry and in-depth interviews shift the focus of objective one from factors for unproductive entrepreneurship practices to factors acting as barriers for productive entrepreneurship practices. The range of factors are large in number and are also diverse in their characteristics. However, many of these factors can be categorised into two types: first, lack of awareness; and secondly, lack of knowledge. For instance, adulterated raw materials, inconsistent information, lack of education, exploiting economic imbalance, new techniques of adulteration, standard and price imbalance are all related to either lack of awareness or lack of education of the entrepreneurs operating in the industry selling street food to children in Bangladesh.

The next section addresses qualitative findings on the emerging theme of entrepreneurial behaviour.

## 5.2 Theme: Entrepreneurial behaviour

The second emerging theme of this research is entrepreneurial behaviour. Phase one of this research investigated the development of current adulteration practices in the industry. Kamala (1974) suggests the existence of four types of adulteration practices in the food industry of Bangladesh. However, two of those adulteration practices are relevant to the industry selling street food to children. This research concentrates on those two practices, namely: 1) addition of extraneous matter; and 2) the use of prohibited dyes and preservatives.

### 5.2.1 Addition of extraneous matter

When participants are prompted to provide opinions on addition of extraneous matter practices, the majority of respondents state that this is common practice. However, the participants also communicate that this particular practice is more common with small and medium-sized entrepreneurs and in rural areas compared to urban areas of Bangladesh. The majority of participants confirm that the practice is on the increase (Figure 5.19, Appendix 5). Quotes from the interviews presented in the section below show that several street food entrepreneurs identified new techniques to adulterate food. Responses are captured where participants thought this method of adulteration is more of a norm among entrepreneurs and that lack of knowledge influences this behaviour. Additionally, an ineffective regulatory framework is also suggested to influence this behaviour.

An academic informs on addition of extraneous matters:

*'In many cases the businesspeople do it without understanding this is adulteration. Because many may have no idea that his can be harmful to health.'*

The researcher investigating food adulteration in Bangladesh says with regard to addition of extraneous matters:

*'It is important to note a lot of adulterations are done without knowledge.'*

Focus group participants state on addition of extraneous matters:

*'Now the entrepreneurs have adopted new technique, which was not seen in the market before. Waxing of rice, to make them glossy, and heavy or adulterated eggs. Both are consumed by children. A lot of fruit items are now available in the market, which are adulterated in this process.'*

An NGO representative says about addition of extraneous matters:

*'Many entrepreneurs are doing it knowingly. But they may not know this is not right. They think this is how it should be, you can say this has become a norm.'*

A government official says about addition of extraneous matters:

*'Addition of extraneous matter is mainly practised in rural areas of the country and it is highly unlikely that larger organisations or corporations are involved in this practice.'*

***Key finding 34: Lack of awareness among entrepreneurs on addition of extraneous matters.***

***Key finding 35: Lack of knowledge among entrepreneurs on addition of extraneous matters.***

***Key finding 36: New techniques of addition of extraneous matters are available in the industry.***

***Key finding 37: Addition of extraneous matters is more common in rural areas.***

Alongside addition of extraneous matters, use of prohibited dyes and preservatives is also identified as a common practice (Solaiman and Ali, 2014; Sumar and Ismail, 1995; Kamala, 1974). Phase one of this research investigated this concern and analyses the findings next.

### 5.2.2 Prohibited dyes and preservatives

This research finds the use of prohibited dyes and preservatives to be common practice in the food industry in Bangladesh. However, a lack of awareness and knowledge is considered the main reason behind this practice, although some respondents thought it is intentional. Additionally, entrepreneurs and street food industry customers lacked awareness of these adulteration practices.

When participants are asked to provide opinions regarding increased or decreased status of the use of prohibited dyes and preservatives, most respondents stated that new techniques are adopted by entrepreneurs in the street food selling industry. Several respondents note the use of chemicals and the increased use of preservatives. However, one participant thought the practice of adding prohibited dyes and preservatives is now in control compared to the past, as the government has imposed new rules, regulations and follow-up mechanisms to control adulteration of this kind. The section below illustrates observations relating to the practice of adding prohibited dyes and preservatives.

An academic suggests on the use of prohibited dyes and preservatives:

- a) *'The problem is when government is coming up with a process to detect a particular adulteration, entrepreneurs are finding an alternative way to adulterate food.'*
- b) *'Since formalin detector is launched, entrepreneurs who wants to adulterate food have adopted an alternative to formalin.'*
- c) *'We do not buy banana, apple, guava if they have spots on their skins. But this is the sign that the fruit is fresh, and this is natural. If a lot of pesticides or formalin is used, then no spots will be there. So, the customers are also suffering from awareness.'*

Focus group participants state on the use of prohibited dyes and preservatives:

- a) *'Awareness and lack of knowledge (among businesspeople) is more concerning relating to this factor.'*

b) *'Customers have lack of awareness in this regard.'*

An NGO representative claims on the use of prohibited dyes and preservatives:

a) *'Chemical adulteration is more common; both intentional and unintentional compared to addition of extraneous matters.'*

b) *'We can evidence three types of concerns with child food: adulteration, intentional chemical contamination, unintentional contamination.'*

c) *'It is not unethical to use preservatives but having no knowledge on the limit is risky.'*

d) *'Those who sell fried items, or items they want to store for longer period will use chemicals as preservative. You can ask them whether they know how much preservatives they can mix in a certain amount of food item. Majority of them do not know.'*

e) *'Eventually, we also need to consider whether the children consuming these food products have knowledge and awareness of food safety.'*

A government official informs on the use of prohibited dyes and preservatives:

a) *'Due to lack of awareness these are practised.'*

b) *'The main reason behind this practice is a result of lack of knowledge.'*

c) *'With the technological development and accessibility of chemicals entrepreneurs are adopting new techniques to adulterate food.'*

Considering these observations, this research generates the following key findings:

***Key finding 38: Lack of awareness among entrepreneurs on use of prohibited dyes and preservatives.***

***Key finding 39: Lack of knowledge among entrepreneurs on use of prohibited dyes and preservatives.***

***Key finding 40: Lack of awareness among customers on use of prohibited dyes and preservatives.***

***Key finding 41: Regulatory framework is not proactive in identifying techniques of chemical adulteration on food (including child food) items.***

The analysis shows a direct relationship between the two main methods of food adulteration introduced by Kamala (1974) and Sumar and Ismail (1995). In specifying food adulteration methods, Kamala (1974) and Sumar and Ismail (1995) classify addition of extraneous matters as method 2 and use of prohibited dyes and preservatives as method 4.

The next section analyses the emerging theme of ethics and ethical behaviour of the entrepreneurs operating in the street food industry of Bangladesh.

### **5.3 Theme: Ethics**

In analysing the emerging theme of ethics, this research identifies the drivers behind the ethical and unethical behaviour of street food entrepreneurs; additionally, efforts are made to identify the impacts of rules, regulations and regulatory frameworks and institutions on the industry. The semi-structured interview process of this research requests the participants to share their opinions on a number of areas. The following section focuses on elaborating on the responses captured in the individual categories.

#### **5.3.1 Main drivers for businesspeople**

The participants are prompted to provide opinions on the main drivers for businesspeople in the street food industry. The main driver found is profit, although this does not mean that all entrepreneurs are operating unethically.

#### **5.3.2 Drivers to operate ethically**

Mathias et al. (2015), Faruque et al. (2010) and Muzaffar et al. (2009) provide evidence of ethical and unethical behaviour among entrepreneurs operating in the street food selling industry. Subsequent to the investigation as to why businesspeople want to enter the street food industry, the participants are invited to provide opinions on the drivers of entrepreneurs who operate ethically. In analysing the responses, this research identifies

that entrepreneurs are educating themselves to operate ethically. To maintain their goodwill and remain sustainable among competition they display ethical behaviour in their operations. Moreover, this research finds responses suggesting improved awareness among the entrepreneurs in the street food selling industry. Additionally, the participants believe those who are operating ethically have better moral values compared to those who are operating unethically and also the government is playing an important role in this improvement. The direct quotes and their analysis presented in section below have generated a number of key findings, communicated subsequently.

An academic informs on operating ethically:

*'BD government has recently developed some strict regulations and the authorities are making regular and follow-up visits to the business premises to check if there are any unethical practices taking place. This has made businesspeople think and alter their business policy now.'*

Focus group participants state on operating ethically:

a) *'Since 2005 there has been a significant change and development in this sector for this availability of knowledge and information. Awareness has increased compared to the past.'*

b) *'We will have to recognise contribution of the government as well. We have seen recent movement of mobile court giving penalty to lot of unethical business practices and that is also helping the awareness improvement.'*

***Key finding 42: Government regulations are having some impact on improving awareness.***

When participants at phase one were asked for opinions relating to the impacts of goodwill, knowledge, morals and competition, or in general the impact of normative institutions on the industry, this research accumulates responses from a diverse source. Direct quotes from the interviews are presented below and considering them this research generates a number of key findings, which are introduced underneath.

An academic participant informs on the impact of normative institutions:

*'Those who are honest in most cases they are morally good. Maybe he is born with good norm and value. Secondly, he wants to do the business with honesty. Thirdly, besides making profit he looks at the food business as a noble profession. He wants no one to have ill health by having his food and definitely he wants to maintain his goodwill.'*

Focus group participants state on the impact of normative institutions:

- a) *'Mainly for business goodwill. Secondly, current generation is exposed to knowledge. Particularly since the year 2000 Internet has become available and affordable to all. They can see and learn from Internet, they are watching TV channels and eventually comparing them against our local businesses. They have access to detailed information. For these reasons, many entrepreneurs are realising if they cannot supply quality food, if the food standard is compromised, I will be the loser at the end and a platform of competition has been developed.'*
- b) *'Many entrepreneurs are getting involved in unethical practice to sustain in the competition in early stages, even if that was not the intention when he or she started the business. Eventually they try to move away from unethical practice to maintain a goodwill for the business.'*

A government official suggests on the impact of normative institutions:

- a) *'A fast-food shop owner is preparing fresh food every day and serving them to the children and adults. His intention is to serve fresh food every day and have a very strong honest drive behind it.'*
- b) *'Those who are operating ethically are there for a sustainable business. Most of them want to start in small scale and progress to a large-scale operation.'*
- c) *'To be honest younger generations who are entering this industry are trying to contribute positively. Their morality, ethical consideration is strong. They intend to hand over something good to the customers and that can be from their ethical consideration or from business perspective.'*

***Key finding 43: Entrepreneurs who have intentions for long-term business consider goodwill.***

***Key finding 44: Exposure to information and knowledge is playing a key role in ethical operation.***

***Key finding 45: Young entrepreneurs have better morals in the child food industry.***

The conversations on ethical operations are followed by a discussion on what drives street food industry entrepreneurs to operate unethically. Qualitative data captured from this discussion is analysed in the next section.

### 5.3.3 Drivers to operate unethically

One of the main drivers to operate unethically is identified as profit-making. Secondly, the poor monitoring structure of the regulatory body is mentioned as a driver. Apart from these two, a lack of awareness, lack of education and ignorance are also mentioned. The participants also thought some entrepreneurs in the street food industry may have short-term business plans; as a result, they intend to make maximum profits within their short existence and thus practise unethically for a maximum yield. Participants also mentioned that to maximise their profits unethical entrepreneurs in many cases use low-quality raw materials. However, they charge customers for a product that should have high-quality raw materials or ingredients.

Observations from the interviews associated with drivers to operate unethically are presented in the section below.

On profit-making as the main drive to operate unethically, the academic participant says:

*a) 'Mainly who are dishonest, they do it for profit-making.'*

*b) 'The entrepreneurs who are dishonest want to make money within a short period of time.'*

c) *'The businesspeople in Bangladesh don't care for the general population and children's health; rather they always wanted to make profit from their businesses.'*

On profit-making as the main drive to operate unethically, the focus group participants state:

*'The main intention for them is profit-making. Maybe they are uneducated and have very low morals as well.'*

On profit-making as the main drive to operate unethically, the NGO representative claims:

a) *'One of the main drives behind operating dishonestly and unethically is to maximise profit.'*

b) *'The small-scale entrepreneurs I am talking about have some intention to cheat the consumers or adulterate food.'*

c) *'There are other vendors who are mixing ingredients with their food, not with the intention to cheat the customers or to operate unethically; rather the main intention is to increase profit.'*

d) *'The sugar substitutes are unhealthy as well. This is completely an act of dishonesty. Because you are not using the basic ingredients the food is supposed to have, as you are driven for profit and hence the whole act is dishonest.'*

e) *'Their main drive is profit-making. By using preservatives heavily, they intend to extend the shelf-life of their food items, whereas they should have a standardised expiry date on them.'*

On profit-making as the main drive to operate unethically, the government official confirms:

*'If you operate unethically there are possibilities you will make more profit.'*

Analysing the above observations relating to unethical operations, this research has arrived at the following key findings:

**Key finding 46: The main driver for unethical behaviour is profit-making.**

Besides profit-making, poor monitoring structure is also identified as one of the main drives for entrepreneurs to behave unethically in the Bangladesh street food selling industry. Additionally, within the poor monitoring structure concern, supplementary questions on how the regulatory body behaves and a lack of manpower within the system are also mentioned. The section below presents direct responses from the participants on the ineffectiveness of monitoring structures.

On ineffective regulative institutions and its influence on unethical behaviour, the academic participant informs this research:

- a) *'Entrepreneurs are not careful because they are not questioned regularly.'*
- b) *'The other reason to be dishonest could be lack of human resources or manpower of government. They have introduced the regulations, but still, they do not have enough people to monitor and impose the regulations.'*

On ineffective regulative institutions and its influence on unethical behaviour, participants from the focus group state:

- a) *'We do not have a mechanism to monitor the business.'*
- b) *'Even there are questions with the honesty of BSTI.'*

On ineffective regulative institutions and its influence on unethical behaviour, the researcher working on food safety claims:

*'Food brought into the country through personal consignment and luggage may not meet the BSTI standard and they are widely available in the market.'*

On ineffective regulative institutions and its influence on unethical behaviour, the government official confirms:

*'The weakness of the regulatory structure is encouraging unethical entrepreneurs.'*

Reviewing the observations on ineffective regulatory structure and concurrent descriptions, this research generates the following key findings:

**Key finding 47: The regulatory framework is not having the impact that was expected.**

***Key finding 48: The regulatory framework does not have enough people to monitor and impose regulations effectively on the food industry.***

Alongside the above concerns, this research also identifies further areas influencing the unethical behaviour in the street food selling industry of Dhaka, Bangladesh. According to the participants there is a proportionate number of entrepreneurs who do not have the intention to stay in the business for a sustained period, which may work as a catalyst for them to behave unethically. The section below communicates quotes from the interviews where participants provided their opinions on this issue.

On short-term business plan and low morals, the academic participant informs this research:

- a) *'They may not have the intention to stay in the business for long. Because to stay in business for long, they need to build goodwill, but still they are taking risk.'*
- b) *'Entrepreneurs and businesspeople who are operating unethically may not have the intention to have a sustainable business or may not intend to stay in the business for longer time.'*

On short-term business plan and low morals, the focus group participants suggest:

*'The main intention for them is profit-making. Maybe they are uneducated and have very low morals as well.'*

And on short-term business plan and low morals, the NGO participant claims:

*'Majority cases they complaint about equipment or manpower problems and the other issue is bureaucracy and also honesty among people.'*

Based on the respondents' opinions, this research generates the following key finding relating to the intentions of street food selling entrepreneurs. The findings from phase one prompt the research to investigate the intentions directly from the entrepreneurs operating in this industry at phase two.

***Key finding 49: There is a possibility that unethical entrepreneurs do not have a long-term business plan.***

Participants are then asked to provide their opinions and concerns related to entrepreneurs' knowledge and education on food adulteration. Responses identify a lack of awareness, lack of education and ignorance as reasons for unethical behaviour. Direct quotes from the interviews are presented below:

The participant with academic engagement informs on lack of awareness, knowledge, ignorance and other components of normative pillars:

- a) *'The third group who does not have knowledge or awareness of adulteration they can be targeted alongside those who are involved in dishonest operations.'*
- b) *'On moral level, they should be educated to understand mixing extraneous material in the food products may pose serious health threats to our children.'*

Focus group participants mention lack of awareness, knowledge, ignorance and other components of normative pillars:

- a) *'I will say in majority cases the unethical practice starts from ignorance and lack of awareness.'*
- b) *'Maybe they are uneducated and have very low morals as well.'*
- c) *'Have no knowledge of these substances and definitely do not have any intention to feed poison to the consumers, majority children.'*

An NGO representative claims on lack of awareness, knowledge, ignorance and other components of normative pillars:

- a) *'The small-scale entrepreneurs have some intention to cheat the consumers or adulterate food. But unfortunately, that is not the main concern, as most of them are not aware that what they are doing has health risks/hazards.'*
- b) *'They are not aware that the ingredient they are mixing has health hazards. So we don't know if the vendor was aware of this issue, whether he/she would still go for the same act. Hence, awareness can be considered as the main issues here.'*

c) *'The labourer who is working may have the knowledge or training, but it is not continuous. No mechanism of follow-up is there.'*

d) *'I cannot really say these food vendors are dishonest or operating unethically; rather they are having a lack of awareness.'*

Finally on lack of awareness, knowledge, ignorance and other components of normative pillars, the researcher working on food safety in Bangladesh suggests:

*'Businesspeople may not know that they are adulterating food.'*

Considering the information on lack of education, awareness and ignorance, this research arrives at the following key finding. This finding is influential in drafting a number of questions in the questionnaire for phase two of the study.

***Key finding 50: Lack of awareness and insufficient education on adulteration among small-scale entrepreneurs is a major concern.***

The next sections analyse the observations of the impact of rules and regulations (components of the regulative pillar), which are associated with the concept of ethics. This research considers the views of stakeholders, the institutions overseeing the industry, and entrepreneurs operating in the street food selling industry.

#### 5.3.4 Impact of rules and regulations: From authorities' perspectives

Participants from phase one are asked to share their opinions on the impact of rules and regulations on the Bangladesh street food selling industry. The consensus is that the current rules and regulations are sufficient (Figure 5.13, Appendix 5); however, there are also opinions from some respondents that the current rules and regulations are not adequate to monitor and manage the industry (see Figure 5.12, Appendix 5). When participants commented that the rules and regulations are not adequate or appropriate, they identified there is a need for new mechanisms to be included in the existing structure. Currently there

is no licensing mechanism in the street food selling industry, specifically for the small and medium-scale entrepreneurs who are categorised as part of the informal industry. Additionally, a lack of equipment, a lack of manpower, poor communication and a bureaucratic structure of the regulatory framework are also mentioned.

This research captures participants' opinions that the regulatory framework is having an impact on the industry and they are happy with the progress. According to participants, the street food adulteration situation is improving, as BSTI (Bangladesh Standard Testing Institute) is approving or verifying more products compared to the past and entrepreneurs have started applying expiry dates on many food items. Moreover, CAB (Consumer Association of Bangladesh) is also having an impact on the industry. Nonetheless, the participants state that they think there is a need of awareness, BSTI should approve all products in the market and the products available in the industry, and the market should meet international standards.

Extracts from the interviews on the debate about the impacts of rules and regulations are captured below and segregated into two sections. The first section shows quotes where participants demonstrated negative responses and the second section demonstrates positive responses. The debate on formal institutions has generated a number of key findings for this research, presented subsequent to their relevant section.

An academic participant, showing unhappiness with the impact of rules and regulations, says:

- a) *'There is lack of proper information regarding the business and how the quality is monitored in BD. The government should develop some standard criteria to measure the quality and the business practices of these types of organisations.'*
- b) *'When I was a member of BSTI, the main agenda for us was to check oil and colour. But we struggled with lack of equipment.'*

- c) *'BSTI is the only regulatory institution of government, who will monitor the industry. Without the approval of BSTI no product should be sold in the market. Around that time BSTI either did not have enough equipment or enough skilled personnel. Furthermore, if someone is dishonest and involved in child food adulteration, BSTI may not have enough manpower to monitor these issues. BSTI needs to increase skilled manpower.'*
- d) *'Besides manpower maybe we need to increase the penalty. Entrepreneurs are not careful because they are not questioned regularly.'*

A government official participating in this research and showing their unhappiness with the rules and regulations states:

- a) *'The food inspection system is not operating effectively. There are reports of corruption'*.
- b) *'Products without permission or authorisation are sold in the market.'*
- c) *'Government is communicating the regulations with the large corporations. SMEs and young entrepreneurs are not being targeted or focused to be communicated of these regulations and expectations.'*

Finally, NGO representatives showing their unhappiness with the rules and regulations designed to oversee the child food industry say:

- a) *'Majority cases they complaint about equipment or manpower problems. And the other issue is bureaucracy and also honesty among people.'*
- b) *'The system used in our country for licensing is not very fair. The restaurant may have a licence, but we are not checking whether they have adequate knowledge of the business and product they are selling. In other countries entrepreneurs are required to renew their licence periodically or annually, but we do not have that system. They ensure whether that the knowledge is sustainable over time. We do not have this system in our country.'*
- c) *'The regulations may need modernising in some aspect and also a mechanism is necessary to bring all small and medium-scale entrepreneurs in the child food sector to be brought under the regulations.'*

Analysing the above quotes, this research arrives at the following key findings:

***Key finding 51: Entrepreneurs in the informal industry are not well informed on the regulatory framework and mechanism.***

***Key finding 52: Lack of equipment and manpower is working as a barrier for the regulatory framework to have appropriate impact.***

***Key finding 53: No licensing/registration mechanism is present to recognise and monitor the small and medium-scale entrepreneurs.***

***Key finding 54: It may be necessary to revisit some regulations and penalty structure.***

In the next section this research presents the quotes from the interviews where participants show their satisfaction with the impact of components of the regulative pillar on the informal child food industry of Dhaka, Bangladesh.

The participant with an academic role, in showing satisfaction with the impact of rules and regulations, says:

*‘Some NGOs and organisations like Consumer Association of Bangladesh (CAB) are actually trying to raise awareness. CAB started their operation around 1998–99. In those days we did not have the concept of expiry dates on food products, but now we are checking the dates prior to purchasing. This has become possible by making both entrepreneurs and customers aware of this.’*

Focus group participants show their satisfaction by saying:

*a) ‘The introduction of Consumer Association of Bangladesh (CAB) is having an impact. If someone makes a complaint of any adulteration in food, actions are taken promptly.’*

*b) ‘Previously we did not have Consumer Association of Bangladesh (CAB). CAB is trying to improve the awareness, but still long way to go. I think this is encouraging and creating awareness.’*

Finally, an NGO representative, quoting their satisfaction with the rules and regulations, states:

- a) *'Before 2013 food safety act or regulations were not there appropriately. The government is working on this issue to further develop and improve the regulations. The government is also implementing their regulations.'*
- b) *'Bangladesh Standards and Testing Institute (BSTI) used to stamp 154 products in the past, now the number has gone past 200. This is an improvement.'*
- c) *'Previously, we did not have the use of expiry date in the past. Now the customers are checking expiry dates before purchasing products. Now if any vendor sells products without expiry dates, BSTI will issue a sanction or penalty against them. So we can say, we can see use of regulatory framework is increasing recently.'*

Analysing the above observations, the following key findings are generated:

***Key finding 55: CAB is having some (slow) impact on improving awareness.***

***Key finding 56: BSTI has increased the number of authorised items in the food sector (nonetheless, small and medium-scale entrepreneurs are not part of this recognition).***

The discussion on the impact of the rules and regulations from the authorities' opinions is followed by an analysis of the impact of rules and regulations from the entrepreneurs' point of view in the next section.

### 5.3.5 Impact of rules and regulations: From entrepreneurs' perspectives

From the discussion on the entrepreneurs' perspectives of the impact of rules and regulations, two sets of responses are captured: 1) where participants mention that some entrepreneurs are happy with the impact of rules and regulations; and 2) where some participants mention that entrepreneurs are not happy. The pattern of the responses is similar when compared to the opinions from institutional perspectives. To support the

claims the research presents direct quotes from an interview with an NGO representative currently active in the Bangladesh street food selling industry:

*'We have two types of entrepreneurs; one group are accepting the new rules and regulations positively and the other group are reluctant.'*

This research divides the comments into two categories. The first set of comments falls under the category of entrepreneurs who already or would prefer to operate ethically. The second set of comments fall into the category of entrepreneurs whose main intentions may not be to operate ethically.

It is evident that the entrepreneurs who are operating ethically are more likely to welcome the rules and regulations. These entrepreneurs believe the introduction of rules and regulations has created a platform for fair competition. Conversely, entrepreneurs who are operating unethically are reluctant to welcome the rules and regulations imposed on them and they are not happy with the impact. The majority of these entrepreneurs have limited investments; hence, they can be categorised as small and medium-sized entrepreneurs. Most of these are not licensed to operate and as a result quite possibly do not care much about the rules and regulations and their impact. Direct quotations on these aspects from the participants on these two spectra of the responses are shown below:

Direct quotes from the academic participants include:

*a) 'Retail store owners attending the seminar have welcomed the rules and regulations.'*

*b) 'Large-scale investors, like retailers and chain shops are trying to comply with these regulations.'*

Direct quotes from the focus group participants include:

*a) 'The ethical entrepreneurs are welcoming these changes and the regulations.'*

*b) 'The regulations are giving them a strong platform to compete against the dishonest ones, who are adulterating the child food and other food.'*

Direct quotes from the NGO representatives include:

*'Particularly those who are operating honestly, they are happy and are welcoming the change and regulations. They think this a positive movement for their business and competition.'*

Direct quotes from the researcher working on food safety in Bangladesh include:

*'Large scale entrepreneurs do not compromise when it comes to child food.'*

And the following direct quote is from a government official:

*'Some entrepreneurs are accepting the regulations and trying to comply with it.'*

Discussions in this section and observations of the direct quotes displayed here generate the following two key findings:

***Key finding 57: Large-scale and ethical entrepreneurs are welcoming the regulatory framework.***

***Key finding 58: Rules and regulations are creating a fair platform for competition.***

In the next section, direct quotes suggesting that some entrepreneurs are not happy with the rules and regulations and their impact on them are presented.

Direct quotes from the interviews with the academic include:

a) *'Everyone will say that they will welcome the regulations, but how much they will abide by that is in question.'*

b) *'Entrepreneurs and businesspeople who are selling child food on the street are not complying with these rules and regulations.'*

Direct quotes from the interviews with the focus group participants include:

a) *'Definitely those who are corrupt and involved in unethical practice are not happy with the regulations.'*

b) *'I don't think they care that much, particularly those who are involved in adulteration.'*

Direct quotes from the interviews with NGO representatives include:

a) *'The entrepreneurs who are involved in adulteration are not happy with the regulatory framework.'*

b) *'Those with limited resources but willing to maximise the profit are not happy; limited resources does not mean they are only small-scale entrepreneurs. Some medium-scale entrepreneurs are also working with limited resources.'*

And a direct quote from the interview with a government official is:

*'There are some who are reluctant to accept these regulations, and many of them actually don't know the purpose and use of these regulations.'*

Analysis from this section and observations from the direct quotes above guides this research to generate the following two key findings:

***Key finding 59: Entrepreneurs with limited investment, mostly small and medium-scale and involved in adulteration, are reluctant to accept rules and regulations.***

***Key finding 60: The purpose of rules and regulations is not clear to entrepreneurs.***

Analysis shows that lack of manpower and equipment is one of the main reasons for a weak regulatory structure in the overall Bangladesh street food selling industry. The analysis further shows that the regulatory bodies are having a positive impact on the formal industry, as they are able to create a barrier for unproductive and destructive behaviour. For instance, analysis suggests that government regulations are mostly welcomed by larger businesses, who are representing the formal sector. However, this research claims that the informal industry is larger than the formal one. Smaller businesses representing the informal sector are reluctant to abide by government regulations. Furthermore, these smaller reluctant businesses consider that unethical practices will reduce their operational costs.

Finally, exposure to information and knowledge on how to operate with safe food, regulations, legislation and training are contributing positively to the street food selling industry of Bangladesh is analysed; young entrepreneurs are found to behave with improved morals, which is restricting them from any wrongdoings.

Discussion and analysis from the above sections are instrumental in structuring the questionnaire used in capturing data at phase two from the entrepreneurs operating in the street food selling industry to children in Bangladesh.

Bangladesh Bureau of Statistics (2020), Islam et al. (2015), Mathias et al. (2015) and Muzaffar et al. (2009), on food adulteration in Bangladesh, refer to the discussion of cost-effectiveness as being unethical versus ethical. Hence, this research investigates the argument with the participants at both phases and the next section analyses qualitative findings from phase one.

### 5.3.6 Cost-effectiveness of ethical vs unethical operations

The research findings suggest that the informal street food industry plays a significant role in the economy as well as influencing the food habits of common people in Bangladesh. This was also indicated by the participants who said that the entrepreneurs who are involved in food adulteration or unethical practices are mostly small and medium-sized entrepreneurs. At this point this research investigates the cost-effectiveness of operating ethically or unethically. The findings show that entrepreneurs who operate unethically may gain financially by using low-quality ingredients and illegal imports.

However, to maintain cost-effective ethical operations entrepreneurs need to plan well. As a result, in comparison, operating unethically turns out to be convenient and also cost-effective for small and medium-sized entrepreneurs in the Bangladesh street food selling industry. The section below captures interview extracts from participants on cost-effectiveness of either ethical or unethical entrepreneurial practices.

The following statement is from the academics regarding cost-effective operations:

*'They (entrepreneurs and businesspeople) are also making profit out of their businesses. I believe their planning is better than those who are dishonest. I also believe their operation is cost-effective, otherwise they would not make a profit.'*

Focus group participants, on cost-effective operations, say:

- a) *'An entrepreneur with ethical concerns pays all his taxes and cannot keep the price as low as the other person.'*
- b) *'There are entrepreneurs in the market who are importing food items illegally and avoiding tax.'*
- c) *'An unethical, counterproductive entrepreneur can make more money quickly.'*
- d) *'There are entrepreneurs who would adulterate food for financial gain and dodging government.'*

An NGO representative claims, on cost-effective operations:

- a) *'We need to consider if the entrepreneurs are maintaining food safety, how much the cost would be for the end product.'*
- b) *'To produce a cake pricing at 2 taka, you will definitely go for these spoiled eggs.'*

Government officials informing this research on cost-effective operations state:

- a) *'Biscuits, ice cream, juice, carbonated water, fizzy drinks and other similar items, which are very popular among children, contain textile colours. Usually, these textile colours are cheaper and can be easily found in the market compared to the food colours.'*
- b) *'I will say operating ethically is not cost-effective and operating unethically is cost-effective or cheaper.'*
- c) *'An unethical operation will achieve financial gain.'*

Finally, a researcher working on food safety states on cost-effective operations:

*'Entrepreneurs and organisations importing child food are required to pay 56 per cent on the imported packed product. Hence avoiding tax is advantageous for the small and medium scale entrepreneurs and businesses.'*

Extracts from and discussions of the above section produce a couple of key findings:

***Key finding 61: Inferior quality ingredients are easily sourced from the market.***

***Key finding 62: Unethical entrepreneurs reduce costs by not satisfying regulations.***

In the same discussion, participants are asked why more entrepreneurs are not following those who are operating productively and ethically. In response, participants inform that as ethical entrepreneurs struggle for growth it becomes less appealing for others to follow. Moreover, it is more expensive for small and medium-sized entrepreneurs to operate ethically in the current street food selling industry. One of the focus group interviews supports this claim:

*‘On top of that the developing economy of the country puts the ethical entrepreneurs under pressure, because if they cannot sustain a healthy growth in their business in the early stage, they cannot survive in the competitive market.’*

A similar tone is captured in an interview with the participant representing the NGO, who states that many entrepreneurs are victims of competition and become dishonest in order to endure in the industry:

*‘To compete and sustain in the market, most of the entrepreneurs are forced to become dishonest, even if they may not have the intention to start with.’*

To conclude the discussion on the emerging theme of ethics, the participants are prompted to share their opinions on the necessary actions to be taken to improve the concerns with adulteration in the food industry. This research captures responses in different perspectives that can be categorised under ‘awareness’. Furthermore, the participants confirm that the changes should not be expected immediately as time is needed to have a positive impact on the industry. The participants state that improvements in awareness are not only necessary for the entrepreneurs but for the customers of the Bangladesh street food selling industry as well. First, there is a need to have awareness about how to avoid chemical-based foods, during both production and consumption. Secondly, overall social awareness requires improvement on the impact of food adulteration on human health, specifically children.

Through improved social awareness, the community can be developed and, thus, improvements in the situation can be expected.

This research finds, although new rules and regulations are being introduced in the food industry, it is still operating an 'old school' mentality. Norm, values and religion (components of Scott's (2014) cultural cognitive pillar) also play an important role in bringing change in the industry. However, as mentioned earlier, time needs to be allocated for all changes to take place successfully. Finally, interview extracts on awareness improvement are recorded in the section below, and information captured here is critical in developing key findings.

A participant from the focus group states:

*'If we can improve the awareness that will increase the situation with adulteration.'*

NGO representatives claim on awareness improvement:

- a) *'Avoiding consumption of chemical-based food is one of our agenda to promote.'*
- b) *'Both regulatory frameworks and social awareness are very important.'*
- c) *'Government may take initiative to educate both entrepreneurs and customers of this sector on adulteration and health hazards relating to adulteration.'*
- d) *'We need to focus on community development and we can do the same (deal social crisis) in Bangladesh.'*
- e) *'If we make the children aware of these issues and concerns and they start behaving accordingly, they will be able to influence other children besides them.'*
- f) *'Do not adulterate food: this is more of a value or norm rather than act and these norms and values are driven by our culture and religious influences.'*

A government official suggests:

*'I think the only way forward to resolve the situation is to increase awareness. Both entrepreneurs and customers need to be aware of adulteration and the negative impact it may have on human body and society.'*

And the food safety researcher states on awareness:

*'Awareness creation is very important, as many entrepreneurs may not be aware of the rules and regulations.'*

Following discussion in the section above and analysis of the direct quotes shown, the following key findings are generated:

***Key finding 63: Awareness improvement is necessary for both entrepreneurs and customers.***

***Key finding 64: Focus can be given on educating and improving awareness of children on food adulteration.***

***Key finding 65: Social norms, values and beliefs can be used in raising awareness.***

Due to this minimal contact and impact on entrepreneurs, those who are involved in food adulteration can easily source inferior raw materials to produce street food. Moreover, if entrepreneurs are not registered it is difficult for the authorities to formally share the valuable information, educate and raise awareness of safe food with them. Furthermore, lack of manpower, equipment, availability of information for entrepreneurs, no licensing mechanism for SMEs and easily sourced inferior raw materials are some of the major weaknesses of the regulative institutions and this influences innovative and ethical entrepreneurship in the informal street food sector of Bangladesh.

The next section includes observations, discussions and analysis on the emerging theme of innovation and associated key findings.

## 5.4 Theme: Innovation

The fourth and final theme emerging from the semi-structured interview process is innovation. Through this theme, the research aims to identify existing business models, a framework and examples of good practices of productive entrepreneurship. However, it should be noted that the interviews were open to accommodate examples of good practice from any sector of business. The purpose of this flexibility is to recognise any good practice, even from other industries if they could have the potential to be transferred to the Bangladesh street food selling industry. A response map accommodating the responses relating to the overall concept of innovation is included in Figure 5.14 under Appendix 5.

### 5.4.1 Good practices of productive entrepreneurship

Investigating examples of good practices in the Bangladesh street food selling industry, this research discovers a few areas that require attention. First, according to the participants, examples of good practice may not be available in the informal industry. The informal industry is categorised as larger compared to the formal one (considering number of entrepreneurs); hence, if examples of good practice are not available in the larger industry that can be worrying. Second, the participants mention there is no existing mechanism to recognise good practices. As a result, it can be difficult for an entrepreneur to identify and follow an example of good practice. Moreover, the participants also felt it would be unwise to restrict investigation to only the food industry for examples of good practices, because if a good practice is identified it can be adopted to any industry through minor or major adjustments, if necessary. Third, the participants express their concern that in the case of entrepreneurs who come to or who already follow good practice, food items sold on the street by them can be unaffordable for common people. However, the interview recognises 'Jatra' as a good example for entrepreneurs to follow.

Direct quotes from the interview participants are presented below, where they were prompted to share examples of good practice in the child food sector.

NGO representatives claim:

- a) *'Some shops and businesspeople self-claim that they serve safe food, but no research or investigation has taken place with these entrepreneurs.'*
- b) *'I think the model to follow should not be restricted only to the child food sector. A business model in a completely different sector may be adopted in the child food sector and may provide the same yield.'*
- c) *'I would expect most of the companies in the formal sector, who are abiding by government rules and regulations, can be examples of good practice.'*

Government officials confirm:

- a) *'Even if they are honest and would like to contribute positively, in many cases they are involved in adulteration indirectly. Hence, it is difficult for businesspeople and entrepreneurs to find a good practice and follow it. Because who is going to confirm this is a good practice?'*
- b) *'"Jatra" can be an example of good practice. They are focused on the agriculture market, and they are the only provider for vegan food in Bangladesh.'*

An academic participating in this research informs:

- a) *'I'd think if we consider only the child food sector for good practice as a business model or a framework it will be wrong. We should be open to adopt good practice from any sector and implement that in the child food sector. Moreover, we can even look for good practice in other countries, and if possible adopt that practice in our system.'*
- b) *'We need to develop a mechanism to recognise or certify good practices.'*

Earlier discussions, analysis and the quotes presented contribute towards the development of two key research findings:

***Key finding 66: Need to develop approved/authorised mechanism to recognise good practices.***

***Key finding 67: Examples of good practices can be adopted from any other industry or country.***

The next section discusses business models of productive entrepreneurship.

#### 5.4.2 Business models of productive entrepreneurship

When the participants are prompted to share information on existing business models of 'productive entrepreneurship' in the Bangladesh child food industry, this research accumulates a number of business models that are considered 'productive'. First, the participants mention there is an increased popularity in entrepreneurs using online platforms. Using online platforms, entrepreneurs can minimise some of their operational costs. More specifically, the use of Facebook sites to trade food items targeting children is mentioned. However, this specific approach comes with the concern of monitoring mechanisms. Second, a number of entrepreneurs are outsourcing some of their activities, which enables them to minimise operational costs. Third, some entrepreneurs are focusing only on local ingredients and the participants thought this approach can also be a good business practice. Fourth, the participants named companies such as 'Milk Vita' and 'Mina Bazar' as having business models targeting food items to children. However, 'Milk Vita' (milk-based products) and 'Mina Bazar' (organic foods) represent the formal sector. According to participants, it would be difficult for entrepreneurs in the informal industry to follow these good practices. Observations from the participants on this discussion are shown below.

Government officials, on existing business models of productive entrepreneurship, say:

- a) *'Going online can also be a good business model to reduce costs of operation and stay productive.'*

b) *'There are some Facebook groups who are producing homemade snacks and food for children.'*

c) *'Operation and business model of "Milk Vita" can be an example for others to follow.'*

Academics participating in the research on existing business models of productive entrepreneurship state:

a) *'Some young entrepreneurs are selling child foods online, which are not adulterated, and customers are actually going online to purchase these items.'*

b) *'I will give example of "Mina Bazar". Their business model can be adopted or copied in the child food sector. They have introduced organic food corner.'*

The researcher working on food safety in Bangladesh on existing business models of productive entrepreneurship says:

*'Food based on locally sourced ingredients should be promoted. Because use of local ingredients will minimise the risk of adulteration scientifically.'*

Discussions, analysis and observations above contribute to a further two key findings which are presented below:

***Key finding 68: Online platforms can be an option for child food entrepreneurs.***

***Key finding 69: Use of locally sourced ingredients can be promoted.***

Discussion on existing business models is followed by a discussion on existing business frameworks of 'productive entrepreneurship' In the following section.

### 5.4.3 Business framework of productive entrepreneurship

When this research investigates the existing business framework of 'productive entrepreneurship', responses received are not significant enough to report. Only on one occasion a business framework developed by *Bish Mukto Utpadon* (translation: Poison Free Production) is mentioned. This is where the entrepreneurs produce, grow and harvest crops without adulteration. However, the business has not experienced a full cycle at the time that the research is conducted. As a result, it is difficult to justify whether the business

framework is productive. The following direct quote is from a participant from the NGO about *Bish Mukto Utpadon*:

*'Recently in Noakhali (a district in the south-eastern part of Bangladesh) a project, Bish Mukto Utpadon, has been launched. Who will produce, grow and harvest crops without any adulteration? Their harvest is still not in the market; it will take a little time as they have just started. They are an agro based firm.'*

A discussion on existing business frameworks is followed by a discussion on barriers to productive entrepreneurship. This discussion is important for this research, as it was previously suggested that some entrepreneurs are unproductive even when they do not intend to be. The following section contributes to valuable key findings, which are influential for this research.

#### 5.4.4 Barriers to productive entrepreneurship

Alongside examples of good practice and business models of 'productive entrepreneurship', the participants also stressed that for all entrepreneurs, specifically those who are operating a small and medium-sized business, it is difficult to follow productive entrepreneurship practice. The research identifies factors acting as barriers for the entrepreneurs to follow productive entrepreneurship.

First, the participants state that operating in a productive entrepreneurship behaviour is not very cost-effective. The majority of entrepreneurs in the informal industry selling street food to children are small and medium-sized entrepreneurs and thus may not have the financial capability to meet the investment expectations of a productive entrepreneur. Second, it is necessary to consider the affordability of street food for its common customers. As large proportions of customers for these entrepreneurs are from the below middle-class economic status of society, there are requirements to keep prices of food low – sold from the streets – to meet the demand-supply equilibrium. Third, there is no structure to educate the entrepreneurs on productive entrepreneurship, particularly if there is a way to be productive in low-scale investment businesses. Fourth, the participants mention risk of

outsourcing, as the outsourced ingredient can be adulterated and, in those cases, even if the entrepreneur has no intention to become unproductive, they would be selling adulterated food in the market eventually. It is important to note the outsourcing exercise is considered as a business model of productive entrepreneurship. Fifth, the research finds a customer base for the products from these productive entrepreneurs is also not created yet. As a result, the customer either is not aware of the availability of these products or may not have the financial ability to access them. The section below presents extracts from participant interviews and the barriers to follow productive entrepreneurship practices in the Bangladesh street food industry to children.

An academic providing opinion on barriers to follow productive entrepreneurship says:

*'On organic food business: However, for young entrepreneurs these models may not be possible to follow or adopt, as they do not have the financial strength to do so.'*

An NGO representative suggesting on potential barriers to follow productive entrepreneurship states:

*a) 'And to produce a cake pricing at 2 taka, you will definitely go for these spoiled eggs.'*

*b) 'If any entrepreneur would like to enter the child food or food sector, they need to have knowledge of the product or food they will be selling, they need to have knowledge of the regulations in the industry, they need to have general and realistic knowledge of how to run a business.'*

Finally focus group participants making claims on barriers to follow productive entrepreneurship say:

*a) 'A lot of examples are there, but they are mainly established businesses and have strong financial stability. But for a young entrepreneur it is difficult to follow them, as they do not have the financial ability to invest at that level.'*

*b) 'The suppliers for those raw materials may be involved in unethical practice or adulteration.'*

c) *'The general public does not have the awareness of these items (produced through productive entrepreneurship).'*

The discussion, analysis and descriptions generate the final two key findings from phase one of this research:

***Key finding 70: Mechanism is not available for small and medium-scale entrepreneurs to follow productive entrepreneurship behaviour within their financial capability.***

***Key finding 71: Mechanism is not there to educate entrepreneurs on productive entrepreneurship and to customers on the availability of street food items produced through the productive entrepreneurship process.***

Analysis of this research proposes two separate potential aspects for consideration when designing a framework for the Bangladesh street food selling industry: 1) raising awareness and educating the entrepreneurs; and 2) aiding the entrepreneurs to follow existing good practices.

Furthermore, the awareness and education framework can have two further divisions. One division targeting educating and raising awareness among customers (including children and adults), and a second division targeting educating and raising awareness among street food entrepreneurs.

Finally, focus on a mechanism to recognise existing good practices in the industry and transferable practices from other industries is to be given. Special attention is required to make these good practices cost-effective for entrepreneurs to follow.

The ultimate section of this chapter attempts to make concluding remarks on discussion of the qualitative data and its analysis.

## 5.5 Concluding remarks

The phase one semi-structured interview process concludes with some positive notes. In general, participants state that the industry selling street food to children in Bangladesh has the potential for growth and offers opportunities for new entrepreneurs to enter. In addition, it is found that the Bangladesh street food selling industry is likely to experience sustainable business growth if productive entrepreneurship behaviour is maintained. The interviews with NGO participants identify that a significant proportion of the population of the country works as a catalyst for business growth for entrepreneurs in the Bangladesh street food selling industry, which this research addresses.

*'The large population is making the industry even more attractive. As a large proportion of the population cannot afford children's food from expensive sources, young entrepreneurs are entering the market with comfort food with cheaper prices asked.'*

The interviews with academics request young entrepreneurs of the Bangladesh street food selling industry to be more patient with their growth as productive entrepreneurship may not provide them the expected return immediately; however, the potential for growth exists.

*'Anyway, for any new entrepreneurs beginning will be tough; still opportunity is there. Because considering the population we do not have enough suppliers for unadulterated street food for children.'*

Finally, government officials participating in the interview process advise entrepreneurs to consider their business from a long-term perspective; this will ensure sustainability.

*'Entrepreneurs in the street food sector should not take the business as a hobby; rather they should plan for sustainable business. There must be a balance between price and quality. Considering the economy of the country food should be accessible to all.'*

The key findings from the discussions and analysis based on the four emerging themes of this research significantly influenced the progress of the study. Where the research initiated the journey to investigate the concerns within the overall industry selling food to children,

however, phase one steered and narrowed the research towards the street food industry. The 71 key findings are carefully considered for the second and third order coding. Moreover, the key findings are fundamental in the development of the questionnaire that is used in phase two to capture responses from the entrepreneurs operating in the industry selling street food to children in Dhaka, Bangladesh.

This chapter concludes with a table (Table 5.1) demonstrating the transition from phase one to phase two this research experiences, where the 71 key findings (from phase one) are analysed using third order coding and theoretical underpinnings are considered to develop the 43 questions for the questionnaire. The questionnaire is used at phase two to capture quantitative data from the food retailers selling street food to children. Chapter six presents findings and analysis of those quantitative data.

Table 5.1: Phase one key findings (KF) contributing towards phase two questionnaire development

KF	Phase one key findings	Theoretical underpinnings	Phase two questionnaire	Rationale and/or Notes
1.	There is no mechanism to recognise and monitor the businesses and small and medium-scale entrepreneurs in the child food industry of Bangladesh.	Institutional pillar: Regulative Entrepreneurship context: How	Q6: Do you have a licence or registration to operate in the food industry?	Phase one finding is tested with the respondents of phase two by asking them whether they have a licence to operate. Forced choice questions (multiple choice questions) are used.
2.	Informal industry is larger in comparison.			Phase two respondents are not expected to have knowledge on this aspect.
3.	Food offered at an affordable price	Institutional pillar: Normative Entrepreneurship context: How	Q7 (option a): What is the key characteristic of the food you are producing and/or retailing?	Option a of question 7 in the phase two instrument enquires whether the respondent thinks affordable price is their key feature.
4.	Introduction of regulatory bodies have made some impact mostly on formal (registered/licensed) businesses	Institutional pillar: Regulative Entrepreneurship context: Where and how	Q31: Govt regulations (from BSTI) need to improve awareness among child food entrepreneurs Q32: Consumer Association of Bangladesh (CAB) need to improve awareness among child food entrepreneurs Q34: Effective BSTI regulations are needed to encourage fair competition in the industry	Phase one finding is tested through asking multiple questions using rating scale questions encouraging response relating impact of regulatory bodies on the informal industry, as phase one findings suggest regulatory body is having impact mostly on formal industry.
5.	For destructive entrepreneurs, potential productive entrepreneurs are struggling	Institutional pillar: Normative and Regulative Entrepreneurship context: How and why	Q24: Those who are involved in adulteration make more profit Q25: Unethical practices reduce production cost	Phase one finding is tested through asking multiple questions using rating scale questions encouraging response relating phase one finding showing impact of destructive entrepreneurship on productive entrepreneurs.
6.	Some sections of the child food industry have evidenced significant improvements and can be potential option for examples of innovative entrepreneurship	Institutional pillar: Normative and Cultural-cognitive Entrepreneurship context: Where, how, who and why	Q8 (options d and e): For the following statements please tick ✓ the one that matches type of your food business most closely Q10 (option a): From the list please tick ✓ the characteristic that you consider to be the best key feature for your food business	Option d and e of question 8 of the phase two instrument invites responses relating online business, which is found innovative approach at phase one. Through selecting option a at question 10 the respondent declares he/she is innovative with their operation. Both questions 8 and 10 use multiple choice answers.
7.	Over reuse of oil in child food industry	Institutional pillar: Normative and Cultural-cognitive Entrepreneurship context: Who and	Q15 (all options): To your knowledge what is the most commonly used technique that risks food safety standard in child food in	Question 15 and 7 in the phase two instrument accommodates techniques and concerns associated with food safety in the street food
8.	Use of sweetener instead of sugar			
9.	Raw materials are contributing to			

	adulteration for those who are intending to operate ethically or productively	why	Bangladesh? Q7 (option c and d): What is the key characteristic of the food you are producing and/or retailing?	industry of Bangladesh identified by literature and phase one. Both questions 15 and 7 use multiple choice answers.
10.	Use of textile colour instead of food colour			
11.	Alongside adulteration pollution is a concern			
12.	Inconsistency of information for both entrepreneurs and consumers	Institutional pillar: Regulative Entrepreneurship context: How and who	Q19: The information from regulatory body should be clear and concise on what entrepreneurs in the food industry can and cannot do Q36: I do not have access to information needed to operate with safe food	Phase one finding is tested using two questions in phase two. Question 19 is a ranking question, asking the respondent to rank the statement out of five alternatives. Whereas as question 36 is a rating scale question, asking respondent to agree or disagree.
13.	Use of formalin to preserve food			
14.	Use of preservatives to preserve food			
15.	Food items are not rotated according to their expiry date	Institutional pillar: Normative and Cultural-cognitive Entrepreneurship context: Who and why	Q15 (all options): To your knowledge what is the most commonly used technique that risks food safety standard in child food in Bangladesh?	Question 15 in the phase two instrument accommodates techniques and concerns associated with food safety in the street food industry of Bangladesh identified by literature and phase one. Question 15 uses multiple choice answers.
16.	Food storage for entrepreneurs is a concern			
17.	Established businesspeople are also involved in child food adulteration to some extent	Institutional pillar: Normative and Cultural-cognitive Entrepreneurship context: When, how, why and who	Q9 (option c): For the following statements please tick V the one that matches your future planning for your food business most closely	Option c of question 9 prompts response suggesting entrepreneur intends to make maximum profit at any cost from multiple choice alternatives.
18.	There is a lack of awareness on food pollutants among child food entrepreneurs			
19.	Awareness on food hygiene is very low among small and medium-scale entrepreneurs	Institutional pillar: Regulative, Normative, Cultural-cognitive Entrepreneurship context: Where, when, how, why and who	Q16: From the list please tick V the factor that you consider as the main barrier for productive entrepreneurship in the child food sector of Bangladesh Q20: Every entrepreneur should undertake training on how to maintain food safety and avoid adulteration before starting food business	Question 16 provides alternatives listing factors acting as barrier for productive entrepreneurship. Options b and c prompt responses relating knowledge and awareness respectively. Whereas question 20 is a ranking scale option testing responses identifying importance of awareness and knowledge among the respondents.
20.	Entrepreneurs hide information of ingredients used			
21.	Local products are sold as imported	Institutional pillar: Regulative, Normative, Cultural-cognitive Entrepreneurship context: Where, when, how, why and who	Q15 (all options): To your knowledge what is the most commonly used technique that risks food safety standards in child food in Bangladesh?	Question 15 is a multiple choice question in the phase two instrument accommodating techniques and concerns associated with food safety in the street food industry of Bangladesh identified by literature and phase one.
22.	Sweeteners, inferior quality oil and unhealthy fat are used in producing			

	child food			
23.	There is no regulation or mechanism for new entrepreneurs when entering the industry	Institutional pillar: Regulative Entrepreneurship context: Where, when and who	Q1: For the following statements please tick <b>✓</b> the one that matches <b>age</b> of your food business most closely (all options) Q6: Do you have a licence or registration to operate in the food industry?	Question 1 identifies the newness/age of the respondent, which is then analysed (cross-tabulation) against question 6 prompting respondent to confirm status of their licence/registration.
24.	No systematic monitoring structure for small and medium-scale entrepreneurs	Institutional pillar: Regulative Entrepreneurship context: Where and how	Q17: Every entrepreneur should have a licence from govt to operate in food industry Q18: The regulatory structure should be effective in identifying adulteration practices and issuing exemplary penalties (monetary or statutory)	Questions 17 and 18 are ranking statements prompting response identifying importance of systematic monitoring structure in the informal industry selling street food to children.
25.	Food inspectors are involved in corruption	Institutional Pillar: Regulative Entrepreneurship Context: How and why	Q26: Number of food inspectors are involved in corruption	Question 26 is a rating scale question testing the phase one finding with phase two respondents.
26.	Weak regulatory structure is encouraging unethical practice	Institutional Pillar: Regulative Entrepreneurship Context: How	Q33: Current regulations and penalty structure of BSTI need modernising	Question 33 is a rating scale question testing effectiveness of the current regulatory structure.
27.	Producing child food within affordable price and with expected standard of safe food is difficult for the entrepreneurs	Institutional Pillar: Cultural-cognitive Entrepreneurship Context: How, why and who	Q23: It is difficult to produce good quality food for affordable price	Question 23 is a rating scale question testing phase one finding with phase two respondents.
28.	Below middle-class customer does not have affordability of safe food			Respondents at phase two are not expected to have this knowledge.
29.	Unethical entrepreneurs are exploiting the economic imbalance	Institutional pillar: Normative Entrepreneurship context: Why	Q24: Those who are involved in adulteration makes more profit	Question 24 is a rating scale question testing phase one finding with phase two respondents.
30.	Regulatory mechanism is not effective on illegal imports of child food	Institutional pillar: Regulative Entrepreneurship context: Why	Q21: My food should be standard tested by Bangladesh Standards and Testing Institution (BSTI) regularly	Question 21 is rating scale question testing phase one finding with phase two respondents.
31.	Customers rely on imported items for safe food	Institutional pillar: Normative Entrepreneurship context: Why	Q12 (option f): From the following statements please tick <b>✓</b> the one that matches key attribute of your ethical practices most closely Q13 (option f): From the following statements please tick <b>✓</b> the one that matches key attribute of your business's innovative approach most closely	Option f in both questions 12 and 13 prompts response relating imported ingredients used in producing the items sold by the respondents to attract customers through promoting ethical and innovative approaches.
32.	Small-scale entrepreneurs are mostly operating in the child food industry	Institutional pillar: Normative, Cultural-cognitive	Q3: For the following statements please tick <b>✓</b> the one that matches size of your business	Questions 3 and 4 are multiple choice questions prompting responses against the size of the

		Entrepreneurship context: Where, why and who	most closely Q4: For the following statements please tick ✓ the one that matches number of employees at your food business most closely	business of the respondents, testing phase one finding.
33.	Majority children are consuming food produced by local entrepreneurs			Not within the scope of phase two of this study, as consumers were not surveyed
34.	Lack of awareness among entrepreneurs on addition of extraneous matters	Institutional pillar: Cultural-cognitive Entrepreneurship context: How	Q16 (option b and c): From the list please tick ✓ the factor that you consider as the main barrier for productive entrepreneurship in the child food sector of Bangladesh	Question 16 provides alternatives listing factors acting as barrier for productive entrepreneurship. Options b and c prompt responses relating knowledge and awareness respectively.
35.	Lack of knowledge among entrepreneurs on addition of extraneous matters			
36.	New techniques of addition of extraneous matters are available in the industry	Institutional pillar: Normative, Cultural-cognitive Entrepreneurship context: Where, how and why	Q15: To your knowledge what is the most commonly used technique that risks food safety standard in child food in Bangladesh?	Question 15 is a multiple choice question in the phase two instrument accommodating techniques and concerns associated with food safety in the street food industry of Bangladesh identified by literature and phase one.
37.	Addition of extraneous matters is more common in rural areas			Not within the scope of phase two of this study, as rural area of Bangladesh is not surveyed
38.	Lack of awareness among entrepreneurs on use of prohibited dyes and preservatives	Institutional pillar: Cultural-cognitive Entrepreneurship context: How	Q16 (option b and c): From the list please tick ✓ the factor that you consider as the main barrier for productive entrepreneurship in the child food sector of Bangladesh Q28: There can be industrial colour rather than food colour used in the food that I am selling	Question 16 provides alternatives listing factors acting as barrier for productive entrepreneurship. Options b and c prompt responses relating to knowledge and awareness respectively. Question 28 is a rating scale question relating to lack of awareness and knowledge.
39.	Lack of knowledge among entrepreneurs on use of prohibited dyes and preservatives			
40.	Lack of awareness among customers on use of prohibited dyes and preservatives	Institutional pillar: Normative Entrepreneurship context: Why	Q41: Customers (parents) need to be aware of the good practices in the child food industry of Bangladesh Q42: Customers (children) need to be aware of the good practices in the child food industry of Bangladesh	Questions 41 and 42 are rating scale question prompting response relating awareness among customers of the informal industry selling street food to children.
41.	Regulatory framework is not proactive in identifying techniques of chemical adulteration on food (including child food) items	Institutional pillar: Normative, Cultural-cognitive Entrepreneurship context: Why	Q27: I am aware of the ingredients that should not be used in food Q28: There can be industrial colour rather than food colour used in the food that I am selling	Questions 27 and 28 are rating scale questions prompting responses against this effectiveness of regulatory framework against food safety concerns.

42.	Government regulations are having some impact on improving awareness	Institutional pillar: Regulative and Cultural-cognitive Entrepreneurship context: Where and how	Q30: Monitoring rules and regulations in child food industry are needed to be welcomed by all entrepreneurs Q35: It is necessary for all entrepreneurs in this industry to have licence (from government) to operate Q36: I do not have access to information needed to operate with safe food	Combination of rating scale questions (30, 35 and 36) are used in phase two to test phase one key finding (42) investigating impact of government regulations on awareness creation.
43.	Entrepreneurs who have intention for long term business considers goodwill	Institutional pillar: Normative Entrepreneurship context: Why and who	Q9 (option a): For the following statements please tick ✓ the one that matches your future planning for your food business most closely Q37: Goodwill of my business is important Q43: In a scale of 1 (not important at all) to 5 (very important) please rate importance of good practice for your child food business	Option a) of multiple choice question 9 prompts respondents claiming growth of business, while maintaining food safety. Rating scale questions (37 and 43) are used in phase two to identify importance of goodwill among respondents, testing phase one finding.
44.	Exposure to information and knowledge is playing key role in ethical operation	Institutional pillar: Regulative and Cultural-cognitive Entrepreneurship context: Why and who	Q33: Current regulations and penalty structure of BSTI need modernising Q35: It is necessary for all entrepreneurs in this industry to have licence (from government) to operate	Question 33 tests effectiveness of info and knowledge in promoting ethical operations and question 35 checks importance of having licence, which will potentially give access to info and knowledge. Both rating scale questions.
45.	Young entrepreneurs have better morals in the child food industry	Institutional pillar: Normative Entrepreneurship context: Who	Q1: For the following statements please tick ✓ the one that matches age of your food business most closely Q12: From the following statements please tick ✓ the one that matches key attribute of your ethical practices most closely	Question 1 checks age of business and question 12 registers attribute of ethical business of the respondent, which then is analysed using cross-tabulation with age of business.
46.	Main driver for unethical behaviour is profit-making	Institutional pillar: Normative Entrepreneurship context: Why and who	Q9 (option c): For the following statements please tick ✓ the one that matches your future planning for your food business most closely Q16: From the list please tick ✓ the factor that you consider as the main barrier for productive entrepreneurship in the child food sector of Bangladesh	Option c of question 9 prompts response suggesting making profit under any circumstances. Whereas question 16 provides alternatives listing factors acting as barrier for productive entrepreneurship.
47.	The regulatory framework is not having any impact as it was expected	Institutional pillar: Regulative Entrepreneurship context: How	Q33: Current regulations and penalty structure of BSTI need modernising	Question 33 is a rating scale question testing phase one finding.
48.	The regulatory framework does not have enough people to monitor and			Not within the scope of phase two of this study, as surveyed entrepreneurs will not have access

	imposed the regulations effectively on the food industry			to this information
49.	There is a possibility that unethical entrepreneurs do not have long term planning with the business	Institutional pillar: Normative, Cultural-cognitive Entrepreneurship context: How, why and who	Q9 (options c, d and e): For the following statements please tick ✓ the one that matches your future planning for your food business most closely Q12: From the following statements please tick ✓ the one that matches key attribute of your ethical practices most closely	Options c, d and e of question 9 are options showing entrepreneurs not having long-term intentions in the industry, whereas question 12 lists attributes of ethical practices, with options (c and i) declaring no such known attribute, which may suggest unethical intentions. Both questions are multiple choice questions.
50.	Lack of awareness and insufficient education on adulteration among the small-scale entrepreneurs is a major concern	Institutional pillar: Cultural-cognitive Entrepreneurship context: Why	Q16: From the list please tick ✓ the factor that you consider as the main barrier for productive entrepreneurship in the child food sector of Bangladesh Q22: Each entrepreneur in the child food industry should be aware of the rules and regulations on food adulteration	Options b and c of question 16 (multiple choice) give the option of lack of knowledge and awareness respectively as barriers for productive entrepreneurship, whereas question 22 invites respondents to rate the importance of awareness relating rules and regulations.
51.	The entrepreneurs in the informal industry are not well informed on the regulatory framework and mechanism	Institutional pillar: Regulative, Cultural-cognitive Entrepreneurship context: How	Q22: Each entrepreneur in the child food industry should be aware of the rules and regulations on food adulteration Q36: I do not have access to information needed to operate with safe food	Questions 22 and 36 are rating scale questions inviting respondents to rate awareness and access to information to operate productively. The questions address the phase one key finding (51).
52.	Lack of equipment and manpower is working as a barrier for regulatory framework to have appropriate impact			Not within the scope of phase two of this study, as surveyed entrepreneurs will not have access to this information
53.	No licensing/registration mechanism is present to recognise and monitor the small and medium-scale entrepreneurs	Institutional pillar: Regulative Entrepreneurship context: How	Q6: Do you have a licence or registration to operate in the food industry? Q21: My food should be standard tested by Bangladesh Standards and Testing Institution (BSTI) regularly	Question 6 (multiple choice) enquires whether respondents have a licence to recognise the business, whereas question 21 invites respondents to rank the importance of standard testing.
54.	May require revisiting some regulations and penalty structure	Institutional pillar: Regulative Entrepreneurship context: How	Q33: Current regulations and penalty structure of BSTI need modernising	Question 33 (rating scale) tests phase one finding from the entrepreneur's point of view.
55.	CAB is having some (slow) impact on improving awareness	Institutional pillar: Cultural-cognitive Entrepreneurship context: How	Q32: Consumer Association of Bangladesh (CAB) needs to improve awareness among child food entrepreneurs	Using rating scale, question 32 attempts to identify level of impact CAB is having on the industry.
56.	BSTI has increased number of authorised items in the food sector (nonetheless, small and medium-scale	Institutional pillar: Cultural-cognitive Entrepreneurship context: How	Q31: Govt regulations (from BSTI) need to improve awareness among child food entrepreneurs	Using rating scale, question 31 attempts to indirectly identify level of impact BSTI is having on the industry.

	entrepreneurs are not part of this recognition)			
57.	Large-scale and ethical entrepreneurs are welcoming the regulatory framework	Institutional pillar: Cultural-cognitive Entrepreneurship context: How and why	Q22: Each entrepreneur in the child food industry should be aware of the rules and regulations on food adulteration Q30: Monitoring rules and regulations in child food industry are needed to be welcomed by all entrepreneurs	Questions 22 and 30 are rating scale questions capturing opinions relating to importance of awareness and welcoming behaviour towards the rules and regulations moderating the industry. As phase two did not intend to survey large-scale entrepreneurs, the questions indirectly address the phase one key finding (57).
58.	Rule and regulations are creating a fair platform for competition	Institutional pillar: Regulative Entrepreneurship context: Where and how	Q34: Effective BSTI regulations are needed to encourage fair competition in the industry	Question 34 is a rating scale question addressing key finding (58) from phase one.
59.	Entrepreneurs with limited investment, mostly small and medium-scale and involved in adulteration are reluctant to accept rules and regulations	Institutional pillar: Normative Entrepreneurship context: Where and who	Q16 (option a): From the list please tick ✓ the factor that you consider as the main barrier for productive entrepreneurship in the child food sector of Bangladesh	Option a of question 16 (multiple choice) gives the option of access to funds as barrier for productive entrepreneurship and addresses phase one key finding (59).
60.	The purpose or rules and regulations are not clear to entrepreneurs	Institutional pillar: Cultural-cognitive Entrepreneurship context: How	Q19: The information from regulatory body should be clear and concise on what entrepreneurs in the food industry can and cannot do	Question 19 is a ranking scale question addressing phase one key finding (60).
61.	Inferior quality ingredients are easily sourced from the market	Institutional pillar: Normative Entrepreneurship context: How and why	Q7 (option e): What is the key characteristic of the food you are producing and/or retailing?	Through using inferior ingredients (phase one finding) some entrepreneurs keep their prices low (option e, question 7).
62.	Unethical entrepreneurs reduce costs by not satisfying regulations	Institutional pillar: Normative Entrepreneurship context: Why	Q25: Unethical practices reduce production cost	Question 25 (rating scale) in phase two instrument directly address phase one key finding (62).
63.	Awareness improvement is necessary for both entrepreneurs and customers	Institutional pillar: Cultural-cognitive Entrepreneurship context: How and why	Q40: Entrepreneurs need to be aware of the good practices in the child food industry of Bangladesh	Questions 40, 41 and 42 are rating scale questions addressing phase one key findings (63 and 64). The rating scale intends to identify importance of awareness among the phase two respondents.
64.	Focus can be given on educating and improving awareness of children on food adulteration		Q41: Customers (parents) need to be aware of the good practices in the child food industry of Bangladesh Q42: Customers (children) need to be aware of the good practices in the child food industry of Bangladesh	
65.	Social norms, values and beliefs can be used in raising awareness			Not within the scope of phase two of this study

66.	Need to develop approved/authorised mechanism to recognise good practices	Institutional pillar: Cultural-cognitive Entrepreneurship context: How	Q38: I am aware of good practices from the child food industry of Bangladesh that I can follow	Question 38 is a rating scale question addressing phase one key findings (66 and 67).
67.	Examples of good practice can be adopted from any other industry or country			
68.	Online platforms can be an option for child food entrepreneurs	Institutional pillar: Cultural-cognitive Entrepreneurship context: Where and how	Q14: From the following please tick ✓ the statement on online business approach that represents your food business closely	Question 14 (multiple choice) provides alternatives in adopting online business approaches for the phase two respondents and addresses phase one key finding (68).
69.	Use of locally sourced ingredients can be promoted	Institutional pillar: Cultural-cognitive Entrepreneurship context: How and why	Q12 (option e): From the following statements please tick ✓ the one that matches key attributes of your ethical practices most closely Q13 (option e): From the following statements please tick ✓ the one that matches key attributes of your business's innovative approach most closely	Option e in both questions 12 and 13 captures responses suggesting respondents consider use of locally sourced ingredients as their key feature for ethical and innovative approach respectively.
70.	Mechanism is not available for small and medium-scale entrepreneurs to follow productive entrepreneurship behaviour within their financial capability	Institutional pillar: Normative and Cultural-cognitive Entrepreneurship context: How	Q39: I am not financially able to follow good practice, because following them will be expensive for my operation	Question 39 is a rating scale question addressing phase one key finding (70).
71.	Mechanism is not there to educate entrepreneurs on productive entrepreneurship and to customers on the availability of child food items produced through productive entrepreneurship process	Institutional pillar: Cultural-cognitive Entrepreneurship context: How	Q40: Entrepreneurs need to be aware of the good practices in the child food industry of Bangladesh Q41: Customers (parents) need to be aware of the good practices in the child food industry of Bangladesh Q42: Customers (children) need to be aware of the good practices in the child food industry of Bangladesh	Questions 40, 41 and 42 are rating scale questions addressing phase one key finding (71) through capturing importance of awareness of good practice, which leads potentially as educational mechanism for entrepreneurs and customers on good practice in the industry.

## Chapter six: Quantitative findings and analysis

### Introduction

This chapter presents discussions and analysis on the quantitative findings from phase two of this study. In arriving at these findings, this research utilises SPSS software as a tool to manage and facilitate the quantitative data. The research entails 250 completed questionnaires to capture the quantitative data presented in this chapter. According to Sharpe (2015), after data or frequencies are collected in a quantitative study, researchers investigate whether more cases fall into one category or if two variables are related based on the distribution of cases. Through using a chi-square test, this research analyses the key quantitative findings and statistical relationships among variables. Data from the cross-tabulation are pivotal in the quantitative analysis (Kent State University, 2020). In addition, to analyse the chi-square test results this research reviews the p-value (asymptotic significance) against the standard accepted significance level ( $\alpha = 0.05$ ).

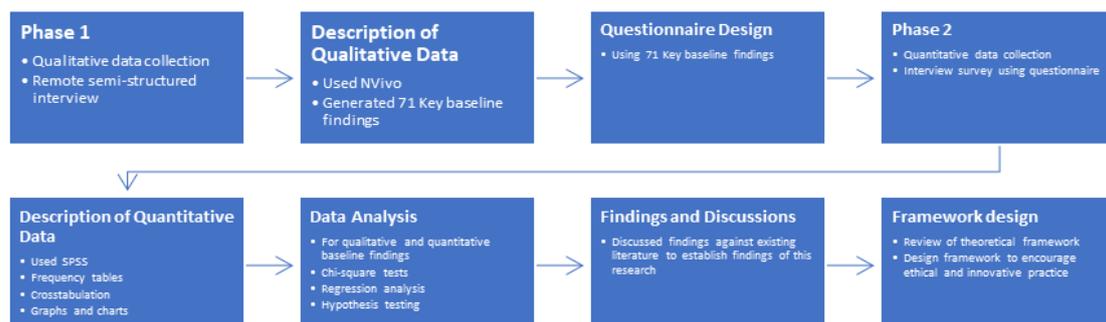
Respondents in phase two represent entrepreneurs from the informal industry selling street food to children in Dhaka, Bangladesh. The main purpose of phase two is to investigate the variables associated with the themes of the objectives from the entrepreneurs' perspectives, which (the themes) are confirmed at phase one of this study using thematic analysis. Outcomes from the discussions and analysis on baseline qualitative and quantitative data (chapters five and six) have driven the discussion (chapter seven) of this research study.

Questionnaires with all 43 questions answered are considered complete; the research attained 250 completed questionnaires. Multiple answers given to the same question, where only one response is prompted, are rejected.

To present the baseline quantitative findings this chapter uses frequency tables and some cross-tabulations when appropriate, specifically to identify any potential statistical relationship between variables. Furthermore, multi-variables are considered to identify any pattern, motive or statistical relationship between the variables of the objectives.

Flowchart 6.1 provides a snapshot of the flow of data this research utilised. The flowchart shows phase one's qualitative data, which is managed and codified using NVivo. The results are used in generating a questionnaire for use in phase two. Phase two captures quantitative data, which are presented and analysed in this chapter. Both qualitative and quantitative findings and analysis are then discussed to generate the conclusive findings of this research to aid the theoretical framework development and draw conclusions.

**Flowchart 6.1: Flowchart of data**



The chapter consists of two sections. The first section introduces the chapter and provides background on how data are used in discussing the findings and analysis. Section two presents discussions on quantitative findings and relevant analysis for the themes derived and guided by the literature and phase one. The chapter concludes with a summary of both qualitative and quantitative analysis.

The next section initiates the discussion on quantitative findings and analysis.

## 6.1 General information of street food entrepreneurs

This section presents results from the queries on 'General information' of the industry selling street food to children in Dhaka, Bangladesh. Age, type, legal status and key features

of the street food industry are considered in this section of the questionnaire. Questions 1 to 10 in the questionnaire are aimed at this theme.

Table 6.1: Age of business (Question 1)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 5 years	136	54.4	54.4	54.4
More than 5 but less than 10	63	25.2	25.2	79.6
More than 10 years	51	20.4	20.4	100.0
Total	250	100.0	100.0	

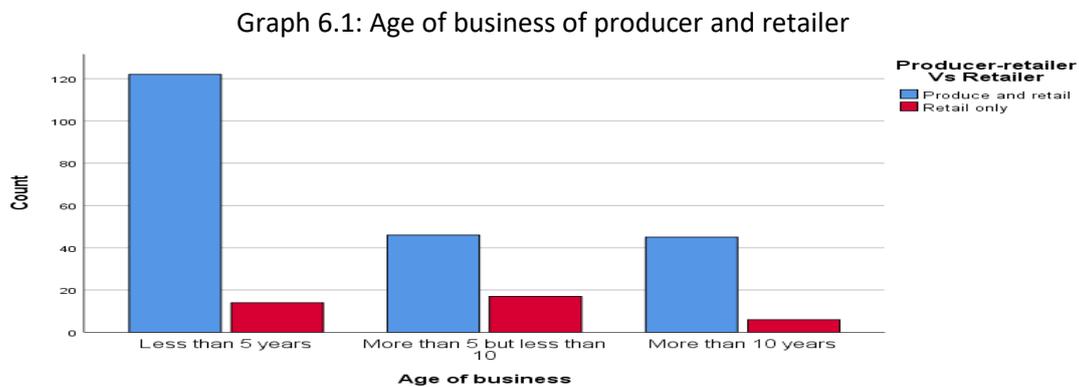
In Question 1 respondents are prompted to select a statement that represents the age of their business. Out of three response options, the results in Table 6.1 show that, out of 250 respondents, 136 respondents (54.4 per cent) state that their business is less than 5 years old. In contrast, 51 respondents (20.4 per cent) state that their business is more than 10 years old.

From the above data, this research claims that 199 or 79.6 per cent of respondents for this research have been operating for less than 10 years in the Bangladesh street food selling industry. At phase one of this research, participants stated that many entrepreneurs in the industry do not have any intention of operating for a longer period as they are unable to secure formal employment. Subsequently, this may have encouraged them to generate maximum profits out of their investment. This behaviour is consistent with Baumol's (2004) entrepreneurial theories which postulate that such behaviour as 'rent-seeking and unproductive' are in the nature of entrepreneurs.

In Question 2, respondents are asked to select what type of retailer they are, where they could be either a retailer or a producer-retailer (the producer-retailer produces then retails street food items themselves). Published reports suggest that the majority of retailers in the street food selling industry are producers of the food they retail (Al Mamun et al., 2013). This research finds that the majority of 213 (85.2 per cent) respondents consider themselves

in the 'producer and retailer' category. This confirms that the majority of study respondents are involved in production of street food sold to children and thus supports the published information.

Investigating the data further, this research finds a statistical relationship between age of business and type of retailers. The cross-tabulation analysis between the data of these two questions shows that the majority of the producer retailers from the industry selling street food to children are fairly new and have been operating for less than 5 years in the industry (Graph 6.1).

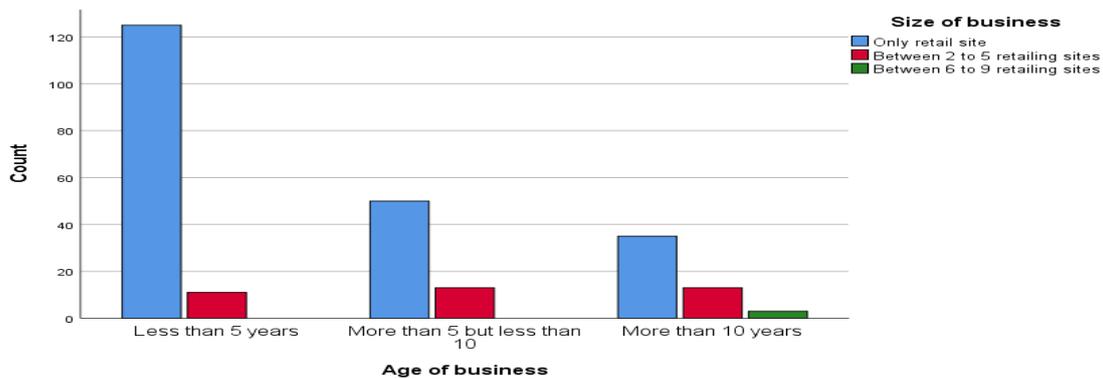


In Question 3, respondents are requested to select a statement representing the size of their business. The research finds that out of 250 respondents, none of the respondents selected the option of having 10 or more retailing sites. Some 210 respondents (84 per cent) operate solely from only one retailing site. Three (1.2 per cent) respondents state that they have between 6 and 9 retailing sites, and 37 respondents (14.8 per cent) selected that they have between 2 and 5 retailing sites.

A cross-tabulation analysis between age and size of business shows the majority of the entrepreneurs who are operating for less than 5 years are mostly running the business by themselves from one site (see Graph 6.2), whereas entrepreneurs operating for more than 10 years are operating from multiple sites and potentially experiencing growth. This may

suggest young entrepreneurs in the industry either do not have the financial capabilities to invest to expand the business or may not have the intention to stay in this business for longer, hence are not investing towards their growth.

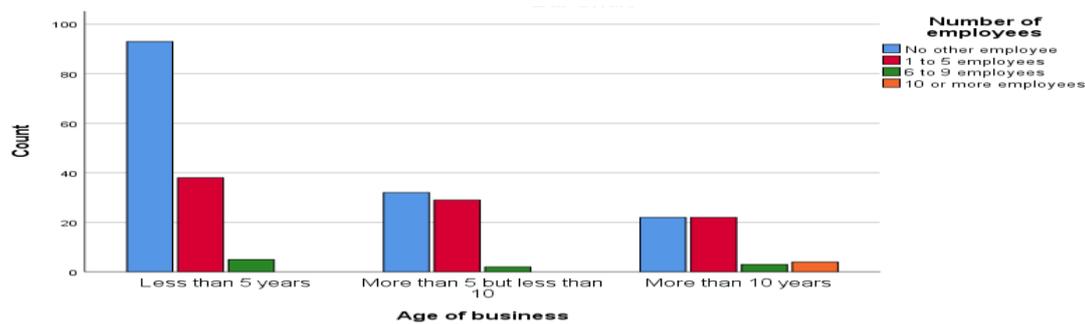
Graph 6.2: Age of business vs Size of business



Question 4 captures results concerning the number of staff that respondents employ in their business. A significant number of respondents (147/58.8 per cent) state that they do not have any other employees. Eighty-nine respondents (35.6 per cent) selected that they have between 1 and 5 employees. Only four respondents (1.6 per cent) state that they have 10 or more employees working for them.

A cross-tabulation analysis of age of business and number of employees demonstrates that the majority of the businesses who are operating for less than 5 years are standalone entrepreneurs without any other employees (see Graph 6.3). Only a handful of the businesses have between 1 and 5 employees and a minor number of businesses have more than 5 employees. However, it can be said that businesses which are operating for more than 5 years or 10 years have more equal spread of number of employees. This may mean that with maturity the entrepreneurs are more confident with their businesses and consider further investment for growth.

Graph 6.3: Age of business vs Number of employees



Phase one of the research suggests that street food entrepreneurs may not be aware of the ingredients they are using in producing food items. As a result, they are unintentionally adulterating street food they are selling to children. Question 5 asks respondents about their awareness of ingredients used in the street food products they retail.

This research finds that 231 respondents (92.4 per cent) are aware of the ingredients they use, whereas only 19 (7.6 per cent) are not aware of ingredients or do not find it is important to know which ingredients they use. This suggests that those participants who are aware of the ingredients are intentionally involved in food adulteration.

Question 6 asks respondents about the status of their licence to operate in the Bangladesh street food industry. Phase two data (Table 6.2) confirms that 42 respondents (17 per cent) have a licence to operate and 141 respondents (56.4 per cent) do not.

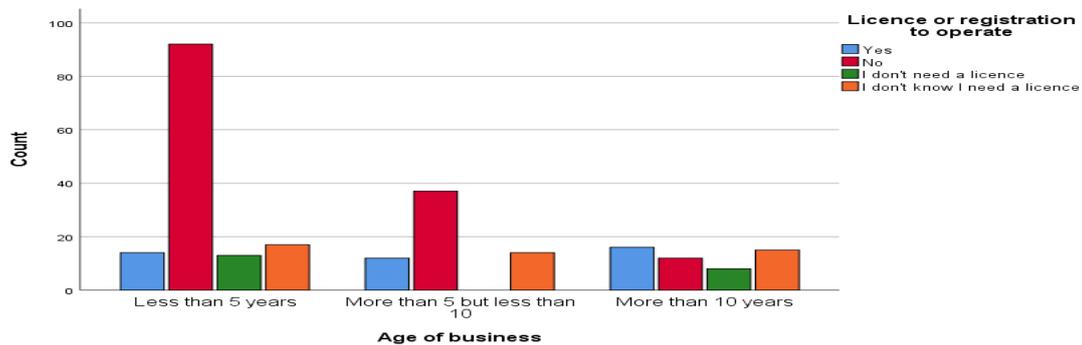
Table 6.2: Licence or registration to operate (Question 6)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	42	16.8	16.8	16.8
No	141	56.4	56.4	73.2
I don't need a licence	21	8.4	8.4	81.6
I don't know I need a licence	46	18.4	18.4	100.0
Total	250	100.0	100.0	

The table shows that 46 (18.4 per cent) respondents do not know if they need a licence to operate. This is marginally higher than the number of respondents (42) who have a licence. Additionally, 21 (8.4 per cent) respondents think they do not need one.

Overall, results of question 6 show a concern relating to licensing awareness among the entrepreneurs. Phase one suggests poor licensing mechanism as one of the major concerns of the Bangladesh street food industry and may have significantly contributed towards the unproductive behaviours from some entrepreneurs. Therefore, this research uses a cross-tabulation to identify a possible correlation between age of business and licence or registration to operate.

Graph 6.4: Age of business vs Licence or registration to operate



The cross-tabulation results presented in Graph 6.4 show that the majority of entrepreneurs operating for less than 5 years do not have a licence or registration for their business. The rate of not having a licence has reduced significantly among the businesses who are operating for more than 5 years. However, each category captures some responses on not knowing that they need a licence to operate. Overall cross-tabulation indicates that entrepreneurs are becoming more aware of licensing mechanisms and the need for formalisation with maturation or age of business. As phase one and the literature suggest, formalising businesses comes with added expenses, most notably tax obligations. Young businesses may not have the financial capabilities to comply with tax regulations (Sarreal, 2019).

Phase one analysis produces a list of key characteristics of the Bangladesh street food industry. These characteristics are identified through key findings, presented in chapter five (and Appendix 2) of this thesis. To capture opinions against those key characteristics from

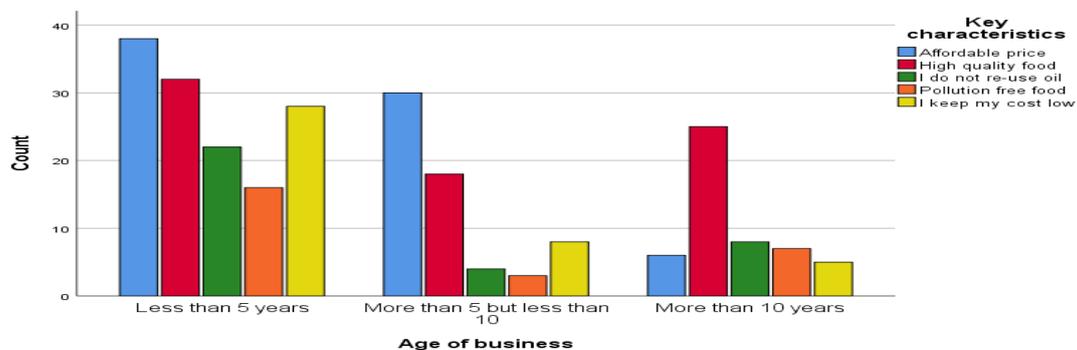
entrepreneurs, Question 7 of the survey asks respondents to specify what they thought were the key characteristics of their food retailing business. The results (Table 6.3) show an even spread of all the alternatives (key characteristics) and it will be unwise to state any one of the key characteristics identified as dominant by the entrepreneurs at phase two. The highest responses (75/30 per cent) are achieved for 'high quality food', followed by 'affordable price' with 74 (29.6 per cent) responses.

**Table 6.3: Key characteristics of food producing and/or retailing (Question 7)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Affordable price	74	29.6	29.6	29.6
High quality food	75	30.0	30.0	59.6
I do not re-use oil	34	13.6	13.6	73.2
Pollution free food	26	10.4	10.4	83.6
I keep my cost low	41	16.4	16.4	100.0
Total	250	100.0	100.0	

To investigate how the key characteristics of businesses develop among the entrepreneurs over their growth and age, this research analyses the data using a cross-tabulation analysis. Graph 6.5 shows food products at affordable price is the dominant characteristic among young entrepreneurs aged less than 10 years and possibly due to the intention to attract more customers towards their business ventures. However, high-quality food becomes dominant as businesses grow and mature, with the majority of entrepreneurs operating for more than 10 years stating high-quality food as a key characteristic.

**Graph 6.5: Age of business vs Key characteristics**



In Question 8, respondents are requested to specify what type of retailer they are. Out of the 250 respondents, none solely operate their business from an online platform. Only one respondent confirms retailing food both from online and offline platforms. It is important to note that online food business (or retailing) is identified as an innovative business approach at phase one of the study. Nonetheless, static street retailing is selected by 145 respondents (58 per cent), with 73 respondents (29 per cent) confirming that they float from one street site to another (floating).

**Table 6.4: Future planning for food business (Question 9)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Grow the business by maintaining food safety standards	67	26.8	26.8	26.8
Serve safe food in affordable price	27	10.8	10.8	37.6
Anyhow make most profit from my investment	33	13.2	13.2	50.8
Save money and invest in better business	38	15.2	15.2	66.0
Not sure about future	83	33.2	33.2	99.2
Others	2	.8	.8	100.0
Total	250	100.0	100.0	

Respondents are requested to identify their future planning intentions in question 9, where 83 (33.2 per cent) respondents state, *'it's difficult to find a job, hence in this business. So, I am not sure about future'*. Phase one of this study identified this particular response as one of the major concerns of the Bangladesh street food industry. In contrast, 67 (26.8 per cent) respondents confirm their intention to have more growth in their business and maintain food safety standards.

From the cross-tabulation analysis between 'future planning' and 'age of business' (Appendix 3), it is evident that the majority of young entrepreneurs (less than 5 years in business) are unsure about their future and would like to make the most profit out of their investments. Similarly, a cross-tabulation analysis between 'future planning' and 'producer and retailers' (Appendix 3) shows the majority of producer-retailers are also unsure about their future, whereas the second largest group would like to experience growth in this business with food safety standards maintained. However, the third largest number of

respondents of the producer-retailer category state that they would like to make the most profit from their investment at any cost.

In Question 10, respondents are asked to specify characteristics they consider as their best key feature (see Table 6.5). Apart from the option 'none of the above' for this question, all other alternatives are characteristics of an entrepreneur identified in literature (Baumol, 1990; Bjørnskov and Foss, 2016; Shane and Venkataraman, 2000).

**Table 6.5: Best key feature/characteristic (Question 10)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
I identified the business opportunity and stayed focused on the opportunity	42	16.8	16.8	16.8
I am innovative, and I convert my ideas into what I offer	14	5.6	5.6	22.4
I invest a lot of my energy to be successful with my business	102	40.8	40.8	63.2
I learn from my mistakes, if I make one	23	9.2	9.2	72.4
I encourage others to buy into my ideas and enthusiasm	22	8.8	8.8	81.2
I make the most out of the resources I have	43	17.2	17.2	98.4
None of the above	4	1.6	1.6	100.0
Total	250	100.0	100.0	

Table 6.10 shows that 102 (40.8 per cent) respondents considered investing significant amounts of their energy in their food business as their best key feature; making the most out of available resources is selected by 43 (17.2 per cent) respondents. The third option selected by respondents is identifying business opportunities and staying focused with it.

Among all the key features of an entrepreneur, option for innovation is selected the least times by respondents. Only 14 (5.6 per cent) respondents consider themselves innovative and convert their ideas into what they offer.

Analysis in the following sections test statistical associations of 'best key features' claimed by the entrepreneurs against their business's age, type, size and number of employees. Table 6.6 shows the p-value (.001) is smaller than the significance level ( $\alpha = 0.05$ ) and the research concludes that there is sufficient evidence suggesting an association between best key feature and age. Furthermore, the research could not establish any other statistical

relationship between best key feature with either type of retailer, size and number of employees in the business. These chi-square test tables are included in Appendix 4.

**Table 6.6: Chi-square test: Best key feature with Age**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	34.613 <sup>a</sup>	12	.001
Likelihood Ratio	32.395	12	.001
Linear-by-Linear Association	11.076	1	.001
N of Valid Cases	250		

A similar test for the uniqueness of the business against the socio-demographic information of the industry is conducted. Unlike the best key features, this research finds evidence of a statistical association with more socio-demographic variables and uniqueness of the business. The chi-square results (Table 7.51 for age, and Table 7.52 for type of retailer in Appendix 4), with .023 and .035 p-values respectively, ensure association between uniqueness of business with age and type to retailer. Moreover, this research finds a weak association between uniqueness of business with the size of the business, but no association is found with the number of employees the business has. Chi-square test tables for these analyses are included in Appendix 4 of this thesis.

### 6.1.1 Key findings (phase two): General information of street food entrepreneurs

The questionnaire comprised of 10 questions with the objective of capturing demographic information of the target audience. More specifically age, size, type, legal status and characteristics of the business were investigated in this analysis section.

First, 199 (79.6 per cent) respondents in phase two representing entrepreneurs from the informal industry selling street food to children in Dhaka, Bangladesh are operating for less than 10 years in the industry. Moreover, 213 (85.2 per cent) respondents are producing the food that they are retailing; the majority of these producer-retailers have been operating for less than 10 years in the street food industry (see Graph 6.1). Furthermore, a significant

number of these entrepreneurs have been operating from only one retailing site (see Graph 6.1) and 218 (87.2 per cent) respondents operate from the street while 145 (58 per cent) operate from a static location (see Table 6.8). This data provides more confidence in the overall results captured by this study, as phase one communicates start-ups and comparatively new entrepreneurs are the concerned group in the food adulteration crisis and results of phase two represents the responses from this concerned category.

Second, 231 (92.4 per cent) respondents are aware of the ingredients they use in producing the food that they retail. This information raises a query whether entrepreneurs who are adulterating food are aware of their wrongdoing or aware of the ingredients but not aware of the concerns relating to the ingredients used.

Third, 208 (83.2 per cent) respondents of the study do not have a licence to operate their food business, where most of these unlicensed entrepreneurs represent the below 10 years (age of business) category (see Graph 6.4). Concerns with unlicensed entrepreneurs are identified in phase one of this study and in existing literature.

Finally, a significant number (123/49.2 per cent) of entrepreneurs in the below 10 years categories are not sure about their future (Table 6.4 and Appendix 3). The qualitative findings of this study claim that, due to lack of regulatory (i.e. licensing) mechanisms, the food business is extremely easy to enter in Bangladesh, hence a lot of the unemployed population of the country enters the industry when they encounter difficulties in securing employment in other sectors. As a result, their main intentions are not necessarily to establish themselves in the food sector, and in most cases they engage temporarily. This lack of commitment increases risks relating to food safety in the overall food industry.

Section two of the questionnaire includes questions 11 to 15 which are designed to address the objective to explore productive entrepreneurship through ethical and innovative practices among Dhaka entrepreneurs selling street food to children.

## 6.2 Productive entrepreneurship through ethical and innovative practices

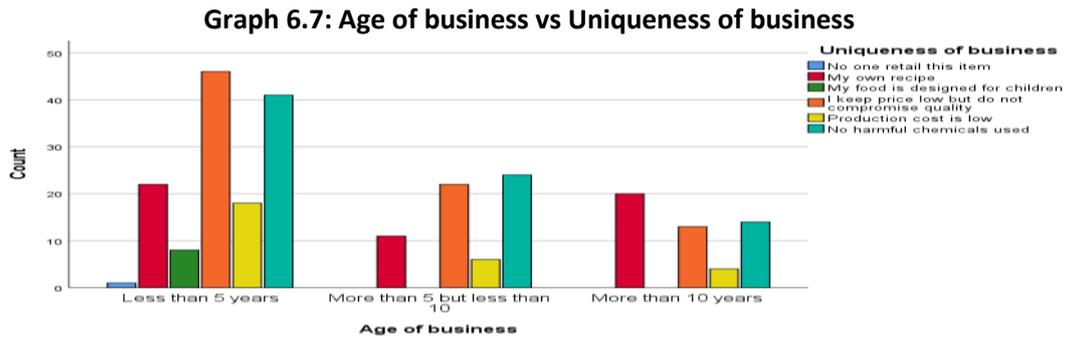
Taking the food adulteration phenomenon into consideration, this research investigates productive behaviour among the entrepreneurs, with particular attention towards awareness of ingredients, food safety, business ethics, food adulteration and innovation. In designing the questionnaire, special attention is paid to the developing economy of Bangladesh, as entrepreneurs may have been influenced in becoming street food entrepreneurs in the first place (identified by the literature and phase one). Investigation on these lines is expected to demonstrate how the behaviour of entrepreneurs is driven. Questions 11 to 15 in the questionnaire address this theme.

In Question 11 respondents are invited to respond to the uniqueness of their food business. Qualitative data dictates this research on the characteristics, which could be considered 'unique' for the entrepreneurs who are operating from the street and selling food to children in Bangladesh. Option g, 'None of the above', did not receive any response and is not included in Table 6.7.

**Table 6.7: Uniqueness of business (Question 11)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
No one retail this item	1	.4	.4	.4
My own recipe	53	21.2	21.2	21.6
My food is designed for children	8	3.2	3.2	24.8
I keep price low but do not compromise quality	81	32.4	32.4	57.2
Production cost is low	28	11.2	11.2	68.4
No harmful chemicals used	79	31.6	31.6	100.0
Total	250	100.0	100.0	

From the remaining options, none receive significantly dominant responses, although 'I keep the price low, but do not comprise quality' receives the highest response at 81 (32.4 per cent). 'No harmful chemicals used' also receives a similar response rate at 79 (31.6 per cent). Only one respondent claims that no one offers the same item and 53 (21.2 per cent) respondents claim the recipes of their food are their own.



A cross-tabulation analysis shows (Graph 6.7) that ‘Keeping the price low without compromising quality is the uniqueness of business’ is claimed by entrepreneurs who are operating for less than 10 years. However, entrepreneurs who have been operating for more than 10 years respond with ‘Own recipe’ as the uniqueness of their business.

Question 12 asks respondents to select a statement matching a key attribute of their business considering ethical practices most closely. The response options are given in two separate sections: retailers and producer-retailers. From the retailer only category, ‘Does not have chemicals’ receives the highest number of responses with 16 (6.4 per cent) of the total responses accumulated for Question 12. Ten retailers (4 per cent) state that they are not aware of any such practice. In contrast 172 (68.8 per cent) respondents claim that they carefully selected local ingredients by themselves and 10 (4 per cent) respondents claim to have carefully selected imported ingredients in producing the food they retail.

A cross-tabulation analysis shows (Appendix 3) ‘Carefully selected local ingredients’ is found to be the key attribute of ethical practices among entrepreneurs who are aware of the ingredients they use in producing their items. This suggests ‘Awareness of ingredients’ plays an important role in how entrepreneurs are behaving (productive or unproductive).

Furthermore, a chi-square test analysing attributes of ethical practice against size (Table 6.8) and type of retailer (Table 7.53, Appendix 4) confirms association with both registering .000 p-value.

**Table 6.8: Chi-square test: Key attributes of ethical practices with Size of business**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	36.095 <sup>a</sup>	12	.000
Likelihood Ratio	21.499	12	.044
N of Valid Cases	250		

Furthermore, this research also finds a weak association between attributes of ethical practices and age, but no association is found with number of employees the business has.

Test tables for them are included in Appendix 4.

Question 12 is followed by key attributes considering innovative approaches in Question 13.

Question 13 also includes two separate sections for retailers and producer-retailers.

**Table 6.9: Key attribute of innovative approach (Question 13)**

Category	Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Retailer only	Producer made it with good quality imported ingredients	5	2.0	2.0	2.0
	Producer made it with good quality local ingredients	10	4.0	4.0	6.0
	I am not aware of any such practice	20	8.0	8.0	14.0
Producer-retailer	Local ingredients are carefully selected by me	199	79.6	79.6	93.6
	Imported ingredients are carefully selected by me	13	5.2	5.2	98.8
	I am not aware of any such practice	3	1.2	1.2	100.0
	Total	250	100.0	100.0	

Table 6.9 shows, from the retailer-only section, 8 per cent (20) of respondents selected 'I am not aware of any such practice', which suggests entrepreneurs who are only retailing are not aware of any innovative approach of the street food retailing business and innovation is pivotal for productive entrepreneurship practices. However, the number of respondents in this category is also low, with 4 per cent (10) of responses for 'Producer produces the food item they retail using good quality local ingredients', assuring that they are confident on the producer's quality. However, 'Local ingredients carefully selected by me' is selected by 79.6 per cent (199) of total respondents from the producer-retailer category as a key attribute of their innovative approach and cross-tabulation shows (Appendix 3) carefully selected local ingredients as a key attribute of innovative approaches among entrepreneurs of all age categories.

An analytical test for attributes of innovative practices against the industry's socio-demographic information is considered. The chi-square results in Tables 6.10 and 7.54

(Appendix 4) for attributes of innovative practices with type of retailer and age of business subsequently confirm an association with both. P-values .000 and .024 are recorded.

**Table 6.10: Chi-square test: Key attributes of innovative practices with Type of retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	206.227 <sup>a</sup>	5	.000
Likelihood Ratio	160.429	5	.000
N of Valid Cases	250		

Furthermore, from the data analysis the research could not find an association between attributes of innovative practices and size of business and with number of employees. Test tables for them are include in Appendix 4.

An online business approach is identified as an 'Innovative business approach' in phase one. Participants of phase one suggest street food and food for children are increasingly being sold online by many entrepreneurs. Social media platforms are also mentioned in phase one and participants state that online approaches are technologically innovative. This study addresses online business approaches in the ethical and innovative practices section of the questionnaire (Question 14).

Results of Question 14 identify a significant area of knowledge/education deficiency among respondents from the Bangladesh street food industry. A majority of 214 (85.6 per cent) respondents do not have the technical knowledge for online retailing. The second largest number of respondents, 26 (10.4 per cent), state that 'I cannot afford cost of online retailing'. The results show that street food entrepreneurs are not in a state financially or educationally to adopt innovative approaches (e.g. online retailing). This is consistent with the literature which claims that most entrepreneurs are uneducated, untrained and do not have financial strengths (Khairuzzaman et al., 2014).

In summary, 240 (96 per cent) of the total responses for online business approach receive negative response. Furthermore, a cross-tabulation analysis shows (Appendix 3) a lack of technical knowhow is the main concern among entrepreneurs of all age categories.

The next table shows results for the online business approach against socio-demographic information and aims to establish any associations between the variables. Tables 6.11 and 7.55 (Appendix 4) analyse online business approaches with age of business and size of business respectively, suggesting an online business approach is not dependent on age of business with .883 p-value. However, online business is dependent on the size of the business, securing .001 p-value.

**Table 6.11: Chi-square test: Online business approach with Age**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.363 <sup>a</sup>	6	.883
Likelihood Ratio	2.724	6	.843
Linear-by-Linear Association	.013	1	.911
N of Valid Cases	250		

Furthermore, the research confirms a statistical association between online business approach and type of retailer and with number of employees the business has. Appendix 4 includes the tables for these tests.

The final question (Question 15) in the ethical and innovative practices section enquires about unproductive or destructive entrepreneurship approaches, aimed at unproductive behaviour commonly adopted in the street food industry of Bangladesh.

A list of seven techniques that risk food safety (adulteration) are made available for respondents to select their response from. All options in this question are identified as unethical approaches in phase one and supported by the literature. Respondents are prompted to select what they think is the most commonly adopted technique to adulterate street food in Bangladesh.

Results in Table 6.12 do not identify any one approach that is most commonly used. However, use of sweetener (58/23.2 per cent), ineffective use of expiry date (56/22.4 per cent), use of inferior raw materials (49/19.6 per cent) and use of formalin (41/16.4 per cent) are identified as the main concerns in the street food industry of Bangladesh.

**Table 6.12: Common technique risking food safety (adulteration) (Question 15)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Use of sweetener	58	23.2	23.2	23.2
Use of textile colours	24	9.6	9.6	32.8
Use of formalin	41	16.4	16.4	49.2
Use of preservatives	22	8.8	8.8	58.0
Use of inferior raw materials	49	19.6	19.6	77.6
Ineffective use of expiry date	56	22.4	22.4	100.0
Total	250	100.0	100.0	

For the theme of objective one the final set of chi-square tests analyses common techniques of food adulteration against the socio-demographic information of the industry. Analysing chi-square results from Tables 6.13 and 7.56 (Appendix 4) with age of business and type of retailer correspondingly, the findings confirm that food adulteration technique is not associated with age (p-value .166). Food adulteration technique, however, is dependent with type of retailing (p-value .001).

**Table 6.13: Chi-square test: Common technique of adulteration with Age**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.161 <sup>a</sup>	10	.166
Likelihood Ratio	14.298	10	.160
Linear-by-Linear Association	1.134	1	.287
N of Valid Cases	250		

Furthermore, data analysis of this research could not find a statistical association between common technique of adulteration and size of business and with number of employees the business has. Tables for these tests are included in Appendix 4.

### 6.2.1 Key findings (phase two): Productive entrepreneurship through ethical and innovative practices

First, 32.4 per cent of respondents state that they do not compromise with the quality of the food they retail while keeping the price low for customers. Nevertheless, this claim is more dominant among entrepreneurs who are operating for less than 5 years in the Bangladesh street food industry to children. Some 79 respondents (31.6 per cent) confirm that no harmful chemicals are present in their food items. This claim is more evident among

entrepreneurs who are operating for between 5 and 10 years. These results can be interpreted as young entrepreneurs are more interested in keeping prices low to attract more customers, whereas mature entrepreneurs are more concerned with food safety.

Second, irrespective of the age of the businesses, results show that entrepreneurs of the Bangladesh street food industry are largely dependent on local ingredients in the items they produce (Appendix 3). Additionally, this research finds that respondents who claim to have awareness of ingredients are carefully selecting the ingredients locally (Appendix 3).

Third, although respondents predominantly claim to have awareness of ingredients, they lack significant technical skills. At phase one, online business approach is suggested as one of the key innovative approaches for this industry and at phase two 214 (85.6 per cent) respondents have confirmed not having the technical knowhow to do online retailing.

Finally, when respondents are asked to address the most common techniques of adulteration practices in the street food industry of Bangladesh, three options receive similar responses: a) use of sweetener (23.2 per cent), b) ineffective use of expiry date (22.4 per cent) and c) use of inferior raw materials (19.6 per cent). It is important to mention that use of sweetener and inferior raw materials are identified as method 1 to adulterate food by Kamala (1974) and Sumar and Ismail (1995).

Section 3 of the questionnaire (questions 16 to 29) is designed to address objective two of this research. The theme of objective two attempts to investigate factors acting as a barrier for productive entrepreneurship. The next section presents quantitative data captured relating to the objective and their analysis.

### 6.3 Factors acting as barriers for productive entrepreneurship

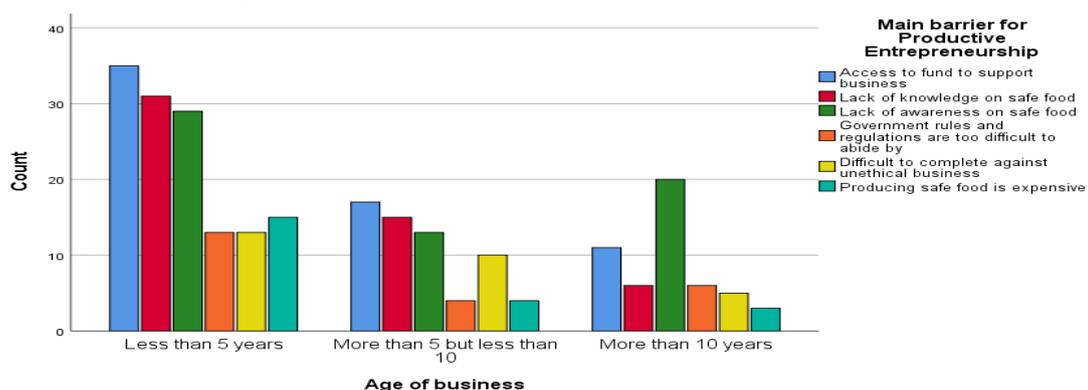
Investigating objective two, respondents are asked about the factors they consider may reduce the chances or rates of adulteration in the Bangladesh street food industry. The results in Table 6.14, however, do not show one clear factor acting as the main barrier to productive entrepreneurship.

**Table 6.14: Main barrier for productive entrepreneurship (Question 16)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Access to fund to support business	63	25.2	25.2	25.2
Lack of knowledge on safe food	52	20.8	20.8	46.0
Lack of awareness on safe food	62	24.8	24.8	70.8
Government rules and regulations are too difficult to abide by	23	9.2	9.2	80.0
Difficult to complete against unethical business	28	11.2	11.2	91.2
Producing safe food is expensive	22	8.8	8.8	100.0
Total	250	100.0	100.0	

Some 63 (25.2 per cent) respondents see 'Access to funds' as their main barrier to productive entrepreneurship, while 62 (24.8 per cent) and 52 (20.8 per cent) select 'Lack of awareness and knowledge of safe food' to be the main barrier. As Question 16 does not identify a dominant barrier, this research applies a cross-tabulation analysis to identify any pattern or dominant factor. Graph 6.8 shows that entrepreneurs operating for between 5 and 10 years do not experience similar barriers to entrepreneurs who have been operating for more than 10 years. For entrepreneurs operating for less than 10 years, 'Access to funds' is the main barrier. For entrepreneurs operating for more than 10 years, 'Lack of awareness of safe food' is the main barrier.

**Graph 6.8: Age of business vs Main barriers for productive entrepreneurship**



In Table 6.15 the analytical exercise between the variables of barriers for productive entrepreneurship and socio-demographic information of the industry fails to establish an association between productive entrepreneurship with age of business (p-value .250). This result suggests productive entrepreneurial behaviour is not age of the business dependent.

**Table 6.15: Chi-square test: Barrier for productive entrepreneurship with Age**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	12.551 <sup>a</sup>	10	.250
Likelihood Ratio	12.303	10	.265
Linear-by-Linear Association	.019	1	.890
N of Valid Cases	250		

Furthermore, no association is found between barrier for productive entrepreneurship and other socio-demographic information as well. Chi-square tables for those tests are include in Appendix 4.

'Licence to operate' is tested against socio-demographic information, with the expectation to identify the influence of licensing on entrepreneurial behaviour. The test (Table 7.57, Appendix 4) fails to establish a statistical association between any specific type of retailing (producer-retailer or retail only) with licensing, which suggests that, irrespective of type of retailing, every street food business should be licensed to operate. Furthermore, no statistical association is found between 'Licence to operate' and other socio-demographic information. Chi-square tables for those tests are include in Appendix 4. In general, this research claims that, irrespective of the socio-demographic status of the street food entrepreneur, every retailer should be within the licensing mechanism.

Investigation on the licensing mechanism is followed by an analysis for 'Awareness of ingredients' against: a) licence to operate; b) clear and concise information; c) food standard testing; and d) effective regulatory structure. The research fails to establish association between awareness of ingredients with any of these aspects (a to d). Furthermore, this research fails to find any association between clear and concise information with socio-demographic information of the entrepreneurs. The test tables are included in Appendix 4.

Questions 17 to 21 of the questionnaire are ranking questions where respondents are asked to rank the five questions from 1 to 5, where 1 represents most important and 5 represents least important in the ranking scale. Results of individual ranking questions are included in Appendix 3 (Tables 6.47 to 6.51). Table 6.47 (Appendix 3) does not show any dominating rank for the statement 'Every entrepreneur should have a licence from government'. The statement accumulates a mean value of 2.77. Table 6.48 (Appendix 2) does not show any dominating rank for the statement 'The regulatory structure should be effective' either, with 2.59 mean value. Table 6.49 (Appendix 3) shows the statement 'Clear and concise information from regulatory bodies' accumulates a 2.99 mean value, without a dominating rank from respondents. Table 6.50 (Appendix 3) shows for the statement 'Undertake training on food safety and adulteration' the research evidences a 3.51 mean value, but no dominant ranks issued by respondents again. Finally, Table 6.51 (Appendix 3) generates a 3.13 mean value for ranking statement 'My food should be standard tested by (BSTI) regularly'. This research confirms none of the ranking receives any specific rank dominantly, hence this research uses the mean value for the statements in identifying the ranks (Table 6.16 below).

Table 6.16: Ranking of statements (Questions 17 to 21)

Question number and statement in questionnaire	Mean value	Rank
18. Regulatory structure should be effective in identifying adulteration and issuing exemplary penalties	2.59	01
17. Every entrepreneur should have licence to operate	2.77	02
19. Clear and concise information from regulatory body on what entrepreneurs can and cannot do	2.99	03
21. My food should be standard tested regularly	3.13	04
20. Undertaking training on food safety and adulteration for every entrepreneur	3.51	05

Table 6.16 shows the statement of Question 18 (*The regulatory structure should be effective in identifying adulteration and issuing exemplary monetary or statutory penalties*) ranked 1 with a 2.59 mean value. The statement from Question 20 (*Every entrepreneur should undertake training on how to maintain food safety and avoid adulteration before starting food business*) is ranked 5 with a 3.51 mean value.

The data from ranking scale questions provided a clear indication that entrepreneurs believe factors ranging from encouraging productive entrepreneurship to barriers for unproductive practices and authorities should play the pivotal role. This is because ranks 1, 2 and 3 are all responsibilities for the authority: to ensure effective regulatory structure (rank 1), licences for all entrepreneurs (rank 2) and clear information for the entrepreneurs (rank 3).

The research also analyses 'effective regulatory structure' against the socio-demographic information of the entrepreneurs to establish how regulatory structure influences entrepreneurial behaviour. The analysis finds that effective regulatory structure is associated with age (Table 7.59, Appendix 4), but not dependent on 'type of retailing' (see Table 6.17). Thus, irrespective of type of retailing, street food entrepreneurs should be subject to effective regulatory protocols.

**Table 6.17: Chi-square tests: Regulatory structure should be effective with Type of retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.390 <sup>a</sup>	4	.983
Likelihood Ratio	.411	4	.982
N of Valid Cases	250		

After tests on effective regulatory structure are carried out, this research investigates 'training on food safety' and 'standard testing of food' against the socio-demographic information of the industry. In both cases no statistical association is found for any of the variables (see test tables in Appendix 4), suggesting that, irrespective of socio-demographic status of the entrepreneur, street food retailers should have training on food safety and should be subject to standard testing of their commodities.

Rating scale questions follow the ranking questions in section 3 of the questionnaire. Questions 22 to 29 of the questionnaire offer a rating scale of 1 to 5, where 1 represents 'strongly disagree' and 5 represents 'strongly agree'. If a respondent intends not to provide their opinion or rating for any given question in this section, they could select 3, which represents 'neither agree nor disagree'.

Question 22 ask respondents to rate the statement: 'Each entrepreneur in the street food selling industry should be aware of the rules and regulations on food adulteration.' Results presented in Table 6.52 (Appendix 3) show an accumulated 243 (97.2 per cent) respondents agreeing with the statement that entrepreneurs should be aware of the rules and regulations on food adulteration in the Bangladesh street food industry.

Question 23 asks respondents to rate, 'It is difficult to produce good quality food for affordable prices.' Table 6.53 (Appendix 3) displays the statements and ratings in all categories, where a cumulative 172 (58.8 per cent) agree that it is difficult to produce good quality food for affordable prices. Only 63 (25.2 per cent) respondents think it is possible to produce good quality food for affordable prices.

Question 24 ask respondents to rate: 'Those who are involved in adulteration make more profit.' Table 6.54 (Appendix 3) illustrates the result, showing a cumulative 80.8 per cent of respondents agreeing that entrepreneurs involved in adulteration make more profit, while 14 (5.6 per cent) respondents think adulterating food does not result in profit-making. However, this is surprising given that the majority of respondents think adulteration can generate more profit for their street food business.

Question 25 prompts respondents to rate the statement: 'Unethical practices reduce production costs.' Table 6.55 (Appendix 3) shows a cumulative 209 (83.6 per cent) respondents agreeing that unethical practice reduces production cost and 12 (4.8 per cent) respondents claim that unethical practice does not reduce production costs. This result can be of concern as the majority of respondents state unethical practice reduces production costs, which can contribute to profit-making (as found in Question 24 results).

Question 26 ask respondents to rate: 'A number of food inspectors are involved in corruption.' Table 6.56 (Appendix 3) shows a cumulative 161 (64.4 per cent) respondents agreeing that some of the food inspectors are involved in corruption and 55 (22 per cent)

respondents think food inspectors are not involved in corruption. Again, results of question 26 can be concerning.

Question 27 invite respondents to rate the statement: 'I am aware of the ingredients that should not be used in food.' Table 6.57 (Appendix 3) presents a cumulative 80 per cent response agreeing that they are aware what ingredients should not be used in food preparation, while 50 (20 per cent) respondents do not have awareness of ingredients not to be used.

Question 28 of the questionnaire asks respondents to rate the statement: 'There can be industrial colour rather than food colour used in the food that I am selling.' Table 6.18 illustrates the result suggesting a cumulative 128 (49.2 per cent) respondents agreeing that there can be industrial colours used in the food they are retailing.

**Table 6.18: There can be industrial colours in the food I am retailing (Question 28)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	36	14.4	14.4	14.4
Disagree	43	17.2	17.2	31.6
Neither agree nor disagree	43	17.2	17.2	48.8
Agree	80	32.0	32.0	80.8
Strongly agree	48	19.2	19.2	100.0
Total	250	100.0	100.0	

Meanwhile, 79 (31.6 per cent) respondents disagree with the statement, and 43 (17.2 per cent) do not want to express their opinion for this statement. The result is of significant concern, as including the neutral responses 122 (48.8 per cent) respondents think they may have industrial colour rather than food colour in the food items they retail.

Investigating further on factors acting as barriers for productive entrepreneurial behaviour this research tests techniques of food adulteration against 'awareness of ingredients of the entrepreneurs' and 'licence to operate for the entrepreneurs.' Data shown in Tables 6.19 and 6.20 are substantial, as they confirm a significant statistical association between

‘adulteration practices’ and ‘ingredient awareness concerns’ (p-value .033) and ‘lack of licensing mechanism’ (p-value .030).

**Table 6.19: Chi-square test: Technique of adulteration with Awareness of ingredients**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.583 <sup>a</sup>	10	.033
Likelihood Ratio	19.658	10	.033
N of Valid Cases	250		

**Table 6.20: Chi-square test: Technique of adulteration with Licence to operate**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	26.877 <sup>a</sup>	15	.030
Likelihood Ratio	30.278	15	.011
N of Valid Cases	250		

The findings show that a licensing mechanism can play a significant role in ensuring ethical practices in the Bangladesh street food industry. The research, thus, conducts an additional test for licensing to operate with standard testing, effective regulatory structure, dissemination of clear and concise information and training on food safety. Analysis of the tests shows that a licensing mechanism for the food industry in Bangladesh will ensure effective food standard testing (p-value .002) and improve effectiveness of the regulatory structure (p-value .004). However, the research could not find a statistical association with clear and concise information (p-value .101) and training on food safety (p-value .627). Chi-square test results for these tests are included in Appendix 4 (Tables 7.62, 7.63, 7.26 and 7.27, respectively).

The final question in section 3 (Question 29) prompts participants to rate the statement, ‘I have the knowledge of how much preservatives I can use.’ Table 6.58 (Appendix 3) shows a cumulative 175 (70 per cent) respondents agreeing that they are aware of the amount of preservatives they can use in the food they retail. Meanwhile, 30 per cent (75) of entrepreneurs participating in this study do not have awareness of preservatives and amounts to be used.

### 6.3.1 Key findings (phase two): Factors acting as barriers for productive entrepreneurship

This research utilises 14 questions addressing the theme of objective two, where Questions 17 to 21 use a ranking scale. In describing the results, this research identifies number of key outcomes, presented in the following section.

First, for main barriers to productive entrepreneurship behaviour, this research indicates 'Access to funds' as the main barrier, with 63 (25.2 per cent) responses. However, the next two most selected barriers are 'Lack of awareness of safe food' (62/24.8 per cent) and 'Lack of knowledge of safe food' (50/20.8 per cent). Even though 'Access to funds' has the highest individual percentage, 'Education/knowledge' relating to safe food is the main barrier for productive entrepreneurship with a cumulative 114 (45.6 per cent) responses (Table 6.16). Moreover, access to funds is a concern for young entrepreneurs, and with maturity (age of business) the funding issue is replaced with lack of awareness (Graph 6.8).

Secondly, having provided responses for knowledge and awareness being the main barriers for productive entrepreneurship, when asked to select importance, respondents select having an effective regulatory structure as most important for entrepreneurs, where awareness and knowledge related options are ranked third and fifth by respondents. This gives a clear indication to this research that there is a major concern of awareness among the entrepreneurs operating in the street food industry of Bangladesh.

Thirdly and finally, although respondents confirm they have knowledge of ingredients they are using to produce the food they retail, a total 128 (51.2 per cent) participants record the possibility of having industrial colours rather than food colour in the food items they retail. In the same question (28 in questionnaire), 43 (17.2 per cent) participants decide to select a neutral response for this question, indicating they are not intending to respond directly about having industrial colour in their food items (Table 6.18). Responses to Question 28 contradict responses to Question 15, where only 24 (9.6 per cent) responses are given for

use of textile colour as common technique of adulteration, method 4 to adulterate food in the industry (Kamala, 1974; Sumar and Ismail, 1995).

Section 4 of the questionnaire is designed to address the theme of objective three of this research (Questions 30 to 37). This section of the research intends to investigate the role of formal (regulative) and informal (normative and/or cognitive) institutions in the Bangladesh street food industry. The following section presents and analyses the quantitative results for objective three.

## 6.4 Role of institutions

This section comprises eight rating scale questions (Questions 30 to 37). Question 30 in Section 4 of the questionnaire asks respondents to rate the statement: ‘Monitoring rules and regulations in street food industry are needed to be welcomed by all entrepreneurs.’ Results show 239 (95.6 per cent) respondents agreeing that monitoring rules and regulations in the street food industry need to be welcomed by all entrepreneurs. It is important to relate that ‘effective regulatory structure’ is ranked as the most important by entrepreneurs (Table 6.16). Furthermore, 243 (97.2 per cent) participants state that all entrepreneurs should be aware of the rules and regulations of food adulteration (Table 6.52, Appendix 3).

This research analyses entrepreneurs’ behaviour in adhering to regulations and impacts of that behaviour on common techniques of adulteration and attributes of innovative and ethical practices. Data in Table 6.21 shows a statistical association between ‘welcoming rules and regulations’ and ‘common technique of food adulteration’ (p-value .000), suggesting that if entrepreneurs welcome regulations it would potentially reduce adulteration practices.

**Table 6.21: Chi-square test: Welcoming rules with Common technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	33.916 <sup>a</sup>	10	.000
Likelihood Ratio	37.283	10	.000
Linear-by-Linear Association	2.544	1	.111
N of Valid Cases	250		

Similar results are illustrated in Table 7.64 (Appendix 4), where this research claims ‘welcoming regulations’ behaviour among the entrepreneurs could be capitalised on to increase or promote innovative approaches (p-value .013) alongside bringing down the adulteration practices within the industry selling street food to children. However, the research findings do not establish a statistical association between ‘welcoming rules and regulation’ behaviour and ‘key attributes of ethical practices’ (see Appendix 4).

Question 31 asks respondents to rate the statement: ‘Government regulations (from BSTI) need to improve awareness among street food entrepreneurs.’ Data shows a cumulative 213 (85.2 per cent) respondents agree that government regulations need to improve awareness among street food entrepreneurs in Bangladesh, while 7 (2.8 per cent) disagree with the statement.

The research further investigates the association between ‘BSTI’s role in improving awareness among the entrepreneurs’ and ‘attributes of ethical and innovative practices’ with ‘common technique of food adulteration’. Tables 6.22 and 7.66 (Appendix 4) show by improving awareness BSTI would not directly encourage ethical practices (p-value .058). However, BSTI would be successful in encouraging innovative practice (p-value .000).

**Table 6.22: Chi-square test: BSTI to improve awareness with Attribute of ethical practices**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	35.776 <sup>a</sup>	24	.058
Likelihood Ratio	42.066	24	.013
Linear-by-Linear Association	5.206	1	.023
N of Valid Cases	250		

Analysis shows that BSTI can play an important role in promoting innovative approaches in the industry selling street food to children through improving awareness, though BSTI may not have the same influence on improving ethical practices. This research assumes ineffective regulatory structure could be the reason behind this failure. Similarly, no

evidence is found that BSTI's awareness leads to improvement with common techniques of adulteration (Table 7.66, Appendix 4).

Next, this research analyses BSTI's role in encouraging fair competition with uniqueness of business, common technique of adulteration and key attribute of ethical practices. Table 6.23 shows how BSTI can have a significant role in reducing food adulteration and promoting uniqueness by encouraging fair competition (p-value .022).

**Table 6.23: Chi-square test: BSTI encourages fair competition with Technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	27.963 <sup>a</sup>	15	.022
Likelihood Ratio	28.714	15	.018
Linear-by-Linear Association	.197	1	.657
N of Valid Cases	250		

The analysis shows that BSTI can play a significant role in controlling food adulteration practices and promoting uniqueness (Table 7.67, Appendix 4) of the business through encouraging fair competition in the Bangladesh street food industry. However, no statistical association is found between BSTI's role of encouraging fair competition and attributes of ethical practices (see Appendix 4).

Subsequently, Question 32 prompts respondents to rate the statement: 'The Consumer Association of Bangladesh (CAB) needs to improve awareness among entrepreneurs selling street food.' Data shows a cumulative 184 (73.6 per cent) respondents agreeing with the statement that CAB needs to improve awareness among entrepreneurs. Only 4 (1.6 per cent) disagree with the statement.

Chi-square analysis presented in Tables 6.24 and 7.67 in Appendix 4 show through improving awareness, CAB can encourage ethical practices (p-value .000) and discourage food adulteration (p-value .006). Furthermore, the analysis finds an association between 'CAB to improve awareness' and 'attributes of innovative approaches' (see Appendix 4).

**Table 6.24: Chi-square test: CAB to improve awareness with Common technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	44.296 <sup>a</sup>	20	.001
Likelihood Ratio	39.301	20	.006
Linear-by-Linear Association	.100	1	.752
N of Valid Cases	250		

In summary, these findings suggest CAB can have an influential impact on promoting ethical and innovative practices in the Bangladesh street food selling industry, alongside bringing down adulteration practices among unproductive entrepreneurs.

Question 33 asks respondents to rate the statement: 'Current regulations and penalty structure of BSTI needs modernising.' A cumulative 205 (82 per cent) respondents agree that modernising of current regulations and penalty structure from government is needed, while 4 (1.6 per cent) disagree with the statement.

Tables 6.25 shows that modernising regulations and penalty structure will have an impact on adulteration practices (p-value .006). Additionally, modernisation will encourage innovative and online business approaches (Tables 7.33 and 7.68 respectively in Appendix 4). However, the research fails to establish association between modernisation of regulations and penalty with ethical practices (Appendix 4).

**Table 6.25: Chi-square test: Modernisation of regulation and penalty with Technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	39.630 <sup>a</sup>	20	.006
Likelihood Ratio	30.788	20	.058
Linear-by-Linear Association	.828	1	.363
N of Valid Cases	250		

The statement 'Effective BSTI regulations are needed to encourage fair competition in the industry' is rated in Question 34 and results show a cumulative 204 (81.6 per cent) respondents agreeing with the statement. In the contrary, 46 (18.4 per cent) do not agree, including 37 (14.8 per cent) who chose the 'Neither agree nor disagree' option.

In Question 35 respondents are invited to rate the statement: 'It is necessary for all entrepreneurs in this industry to have a licence (from government) to operate.' Results in Table 6.26 show a cumulative 210 (84 per cent) respondents agreeing that a licensing mechanism from the government is necessary, while 14 (5.6 per cent) disagree with the statement.

**Table 6.26: Licences from government for all entrepreneurs are necessary (Question 35)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	2	.8	.8	.8
Disagree	12	4.8	4.8	5.6
Neither agree nor disagree	26	10.4	10.4	16.0
Agree	81	32.4	32.4	48.4
Strongly agree	129	51.6	51.6	100.0
Total	250	100.0	100.0	

Question 36 is directed towards the accessibility of relevant information needed to operate in the Bangladesh street food industry. Respondents are asked to rate the statement: 'I do not have access to information needed to operate with safe food.' Data shows a cumulative 78 (31.2 per cent) respondents saying that that they do not have access to relevant information necessary for them to operate in the Bangladesh street food selling industry. Meanwhile, 132 (52.8 per cent) respondents disagree with the statement, suggesting they have access to relevant information. These results raise concerns that only around 50 per cent of the respondents of this survey have access to relevant information to operate with safe food in the Bangladesh street food selling industry.

In-depth analysis presented in Table 6.27 shows that 'no access to information' has a strong statistical association with common techniques of food adulteration (p-value .001).

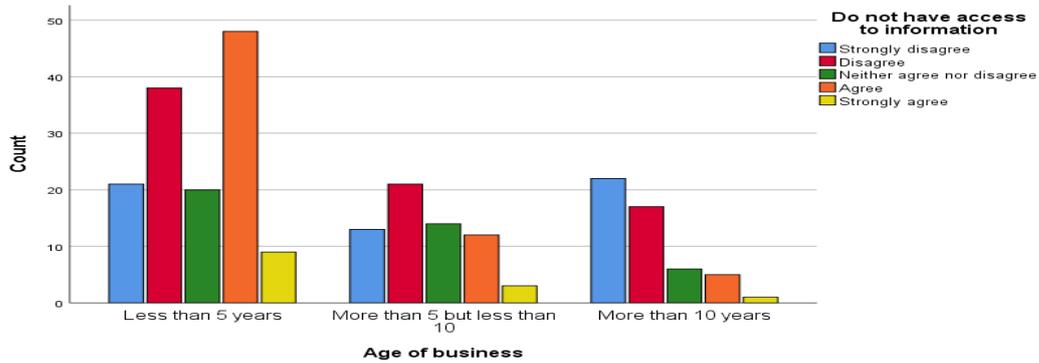
**Table 6.27: Chi-square test: No access to information with Common technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	44.168 <sup>a</sup>	20	.001
Likelihood Ratio	44.026	20	.001
Linear-by-Linear Association	1.146	1	.284
N of Valid Cases	250		

A statistical association between licence needed and online business, uniqueness of business and innovative approaches is also established (see Appendix 4). This research finds that access to adequate and appropriate information on safe food by entrepreneurs can have an influence in bringing the rate of food adulteration down.

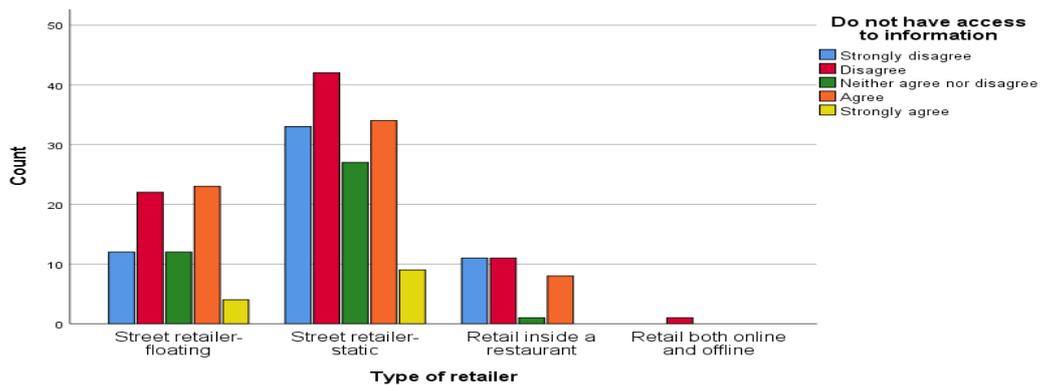
A cross-tabulation analysis finds that entrepreneurs who are operating for less than 5 years respond strongly that they do not have access to information. However, entrepreneurs from other age categories respond about having access to information more favourably (Graph 6.9).

Graph 6.9 Age of business vs Do not have access to information



A further cross-tabulation analysis shows street retailers who do not have a static location of operation responded more favourably to the statement of not having access to information in comparison with other types of retailers (see Graph 6.10).

Graph 6.10: Type of retailer vs Do not have access to information



The final question (37) under the ‘Role of institutions’ theme is another rating scale statement: ‘Goodwill of my business is important.’ Table 6.28 presents the results.

**Table 6.28: Goodwill of my business is important (Question 37)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	1	.4	.4	.4
Disagree	1	.4	.4	.8
Neither agree nor disagree	3	1.2	1.2	2.0
Agree	79	31.6	31.6	33.6
Strongly agree	166	66.4	66.4	100.0
Total	250	100.0	100.0	

A large cumulative 245 (98 per cent) respondents think goodwill of business is important and rate the statement between 4 and 5 (agree and strongly agree). Only 2 (0.8 per cent) disagree with the statement.

#### 6.4.1 Key findings (phase two): Role of institutions

The role of institutions section includes Questions 30 to 37 of the questionnaire and addresses objective three of the study, reviewing the role of institutions in promoting or impeding innovative and ethical practice in the Bangladesh street food selling industry. Key quantitative findings from the discussion are presented in the following section.

First, almost all respondents agree that entrepreneurs operating in the Bangladesh street food selling industry need to welcome monitoring rules and regulations. This claim is supported by responses captured at the section regarding factors acting as a barrier for unproductive entrepreneurship. These results show that, irrespective of entrepreneurs' productive or unproductive behaviour, there is a need for an effective regulatory structure among entrepreneurs.

Second, irrespective of age of the business or having (or not) a licence to operate, the majority of entrepreneurs agree that BSTI needs to play a significant role in improving awareness among street food entrepreneurs (Appendix 3) and to encourage fair competition in the industry. Subsequently, CAB is also expected to play an important role in improving awareness. However, BSTI is expected to play a more significant role in comparison with CAB. It is important to note, only 132 (52.8 per cent) respondents mention the need of having necessary information to operate with safe food in the industry.

Third, at least 82 per cent of respondents agree that the current regulation and penalty structure is not appropriate and requires modernising (Table 6.22). Additionally, 210 (84 per cent) respondents think all entrepreneurs should have a licence to operate their food business (Table 6.26).

Overall, this section gives the impression that both BSTI and CAB are playing a role in the operation of entrepreneurs in the street food industry of Bangladesh, but their role may not be sufficient or effective enough to have significant influence to encourage productive entrepreneurial behaviour.

The final section (section 5) of the questionnaire is designed to address objective four of this research. Questions 38 to 43 are used to capture responses against this objective of existing frameworks to encourage ethics and innovative practices in the industry selling street food to children. The following section presents data accumulated addressing objective four.

## **6.5 Framework to encourage ethics and innovation**

In addressing the theme, respondents are asked to respond to questions focusing on good practices in the Bangladesh street food industry. Regarding good practice, this research considers those businesses who are experiencing growth through operating ethically and/or innovating new safe food products, and/or making positive contributions towards the society/community.

This research includes six rating scale questions, and the questionnaire concludes with an opportunity for respondents to leave any comment or suggestion for the researcher. The following section communicates the results and analysis.

The first question (Question 38) in this section invites respondents to rate the statement: 'I am aware of good practices from the street food industry of Bangladesh that I can follow.'

Results show that 238 (95.2 per cent) respondents agree (cumulative) that they are aware of the good practice in the industry that they can follow. Just one respondent disagrees with the statement.

The subsequent question (Question 39) asks respondents to rate: 'I am not financially able to follow good practice, because it will be expensive for my operation.' Results show a cumulative 110 (44 per cent) respondents confirming that they are not financially able to follow good practices. Conversely, 90 (36 per cent) disagree with the statement, suggesting they are financially able to follow good practices. However, it is clear that more respondents in this survey are not financially able to operate following a good practice and this is an area of concern.

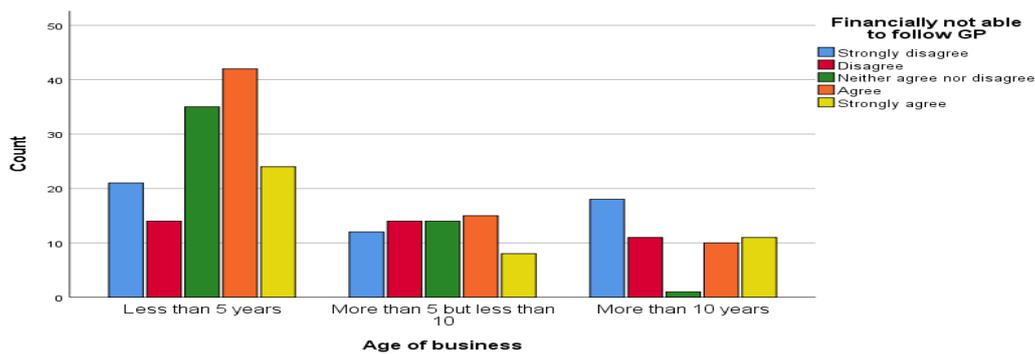
Further analysis of the issue shows (Table 6.29) that, although entrepreneurs are aware of good practices, they are not financially able to follow them. Table 6.29 suggests that 'Aware of good practices' may not be sufficient for the entrepreneurs to adopt them. The good practices have to be financially viable for entrepreneurs.

**Table 6.29: Chi-square test: I am aware of GP with Not financially able to follow GP**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	65.301 <sup>a</sup>	12	.000
Likelihood Ratio	72.457	12	.000
Linear-by-Linear Association	7.959	1	.005
N of Valid Cases	250		

An earlier section of this chapter (Table 6.14 and Graph 6.8) shows entrepreneurs indicating not having access to funds as one of the main barriers for productive entrepreneurship. In this section the entrepreneurs have provided similar responses of not being financially able to follow good practices. Thus, this research investigates this concern with a cross-tabulation to identify who were these entrepreneurs and finds that entrepreneurs operating for less than 5 years are the ones not financially able to follow good practices (see Graph 6.11).

Graph 6.11: Age of business vs Financially not able to follow good practice



Question 40 asks respondents to rate: 'Entrepreneurs need to be aware of good practices in the Bangladesh street food industry.' Table 6.30 shows 213 (85.2 per cent) respondents (cumulative: agree and strongly agree) think it is important for entrepreneurs to be aware of good practices in the industry. Only three (1.2 per cent) respondents disagree with the statement, suggesting they do not find it is important for entrepreneurs to be aware of good practices. However, it is clear that more respondents in this survey find it important to be aware of good practices of the industry.

Table 6.30: Entrepreneurs need to be aware of GP (Question 40)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	1	.4	.4	.4
Disagree	2	.8	.8	1.2
Neither agree nor disagree	34	13.6	13.6	14.8
Agree	84	33.6	33.6	48.4
Strongly agree	129	51.6	51.6	100.0
Total	250	100.0	100.0	

Question 41 asks respondents to rate: 'Customers (parents) need to be aware of good practices.' A cumulative 235 (94 per cent) respondents agree that parents (customers) of the Bangladesh street food selling industry should be aware of good practices. Only one respondent disagrees with the statement. Subsequently the penultimate Question 42 asks respondents to rate a similar statement: 'Customers (children) need to be aware of good practices.' Results show that 212 (84.8 per cent) respondents agree that children (customers) of the street food industry should be aware of good practices, with two (0.8 per cent) respondents suggesting otherwise (disagree). Comparing results this study concludes

that in general street food entrepreneurs in Dhaka, Bangladesh, who are selling street food to children, think it is more important for parents to be aware of good practices of the street food industry.

Tables 7.72 and 7.73 (for parents and children respectively, shown in Appendix 4) show that 'awareness of ethical practices' (p-value .001) and 'innovative approaches' (p-value .000) are important. These findings suggest that if parents are aware of good practices this can encourage ethical behaviour among entrepreneurs and, similarly, awareness among children. Good practices will therefore encourage innovative approaches in the Bangladesh street food selling industry to children. The research also finds a statistical association between 'awareness of parents' and 'innovative approaches'; and 'awareness of children' and 'ethical practices' (see Appendix 4).

The research also tests 'awareness of customers' (both parents and children) and 'common techniques of food adulteration'. The results confirm a statistical association between the variables, which suggests this awareness can be influential in bringing the rate of food adulteration practices down (Tables 7.39 and 7.40 in Appendix 4).

The final question (43) asks respondents to rate 'importance of good practice' (1 = not important at all; 5 = very important). Results illustrated in Table 6.31 suggest a cumulative 233 (93.2 per cent) respondents think good practice is important for their business, with no responses suggesting good practice (GP) is not important.

**Table 6.31: Importance of GP (Question 43)**

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Neither agree nor disagree	17	6.8	6.8	6.8
Agree	37	14.8	14.8	21.6
Strongly agree	196	78.4	78.4	100.0
Total	250	100.0	100.0	

The questionnaire concludes with an opportunity for respondents to provide any comment or suggestion for the research; out of 250 surveys the study receives eight comments. Table

6.32 records the comments, and the research considers the comments while analysing results.

**Table 6.32: Any comment or suggestion responses**

Respondent Sl no	Any comment or suggestions statement
01	Raw materials need to be of high quality
02	Need to increase healthy food environment
06	Out of date (expired) food item should not be sold
12	Government need to ensure the legal regulations are implemented
23	Support from government is necessary
56	Government need to take improved scheme
62	Need to have loan arrangements for entrepreneurs
64	Either from government or from any other source there should be financial support (loan) available

### 6.5.1 Key findings (phase two): Framework to encourage ethics and innovation

Some 213 (85.2 per cent) respondents think it is important for the entrepreneurs to be aware of the good practices of the street food industry of Bangladesh (Table 6.30), while 238 (95.2 per cent) respondents state that they are aware of the good practices that can be followed. However, at least 110 (44 per cent) respondents claim that they are not financially able to follow good practices.

On further investigation, it becomes clearer that the majority of these financially unable entrepreneurs are young businesses operating for less than 5 years in the street food industry of Bangladesh (Graph 6.11). This registers further support for the result showing 63 (25.2 per cent) respondents confirming that access to funds is one of the main barriers to operate productively, especially for entrepreneurs who have been trading for less than 5 years.

Finally, respondents respond strongly in favour of the importance of good practices (Table 6.31), along with the need for customers (both parents and children) to be aware of existing good practices in the industry.

## 6.6 Summary of analysis

Table 6.33 shows the analysis from qualitative data derived from third order coding, which are then tested at phase two (quantitative). The table compares the qualitative and quantitative findings and, subsequent to the summary of analysis, concluding remarks are made for this chapter.

Table 6.33: Summary of analysis

Obj	Scope of objective	Qualitative Analysis (Third Order Coding)	Quantitative Analysis
Objective 1	<ul style="list-style-type: none"> <li>• Productive entrepreneurship</li> <li>• Ethical practices</li> <li>• Innovative practices</li> </ul>	<ol style="list-style-type: none"> <li>1. Large informal industry is contributing with more concerns</li> <li>2. Use of locally source ingredients (ethical)</li> <li>3. Online platform to retail street food (innovative)</li> <li>4. Innovation in cookies industry</li> </ol>	<ol style="list-style-type: none"> <li>1. With maturity (age) of business entrepreneurs offers more features, uniqueness, and innovation</li> <li>2. Online platform is not related to business's age, but related to size</li> <li>3. Adulteration practices are not related with age, rather related to type of retailer</li> </ol>
Objective 2	<ul style="list-style-type: none"> <li>• Factors acting as barriers for unproductive and destructive entrepreneurship</li> <li>• Factors acting as barriers for productive entrepreneurship</li> <li>• Developing economy of Bangladesh</li> </ul>	<ol style="list-style-type: none"> <li>1. Lack of awareness is contributing to adulteration practices</li> <li>2. Lack of knowledge is contributing to adulteration practices</li> <li>3. Weak regulatory structure (lack of manpower and equipment) contributing to adulteration practices</li> <li>4. Regulatory bodies are acting as barrier for unproductive entrepreneurship in formal industry</li> <li>5. Exposure to information and knowledge are acting as barrier for unproductive entrepreneurship in formal industry</li> <li>6. Young entrepreneurs are with better moral</li> </ol>	<ol style="list-style-type: none"> <li>1. Barriers to productive entrepreneurship is not related with age of business</li> <li>2. All types of entrepreneur should have a licence to operate</li> <li>3. Clear information from regulatory body does not have association with awareness of ingredients</li> <li>4. Mature entrepreneurial ventures find regulatory structure need to be effective</li> <li>5. Licencing and awareness of ingredients will have significant impact of adulteration practices</li> </ol>

Objective 3	<ul style="list-style-type: none"> <li>● Role of informal institutions in promoting or impeding innovative and ethical practices</li> <li>● Role of formal institutions in promoting or impeding innovative and ethical practices</li> <li>● Awareness</li> </ul>	<ol style="list-style-type: none"> <li>1. Slow impacting regulatory framework impeding innovative and ethical entrepreneurship             <ol style="list-style-type: none"> <li>a. No licencing mechanism for SME</li> <li>b. Lack of information</li> <li>c. Easy to source poor raw materials</li> <li>d. Lack of manpower and equipment</li> </ol> </li> <li>2. Govt. regulations and CAB are slowly improving awareness</li> <li>3. Modernisation of regulations and penalty is needed</li> <li>4. Regulations are not welcomed by small investors (informal industry), as potentially unethical practices reduce cost</li> <li>5. Goodwill is considered by entrepreneurs</li> </ol>	<ol style="list-style-type: none"> <li>1. Welcoming rules and regulations will enhance innovative practices and reduce adulteration practices</li> <li>2. BSTI and CAB can have positive influence to promote innovation, ethics, uniqueness, encourage fair competition and reduce adulteration</li> <li>3. Modernisation of regulations and penalty will have positive impact on promoting online business and reduce adulteration</li> <li>4. Online businesses should be licenced</li> <li>5. Access to information can reduce adulteration practices</li> <li>6. Innovative approaches enhance goodwill</li> </ol>
Objective 4	<ul style="list-style-type: none"> <li>● Framework that encourages ethical and innovative</li> <li>● Awareness</li> </ul>	<ol style="list-style-type: none"> <li>1. Framework should have the mechanism to educate and create awareness for entrepreneurs             <ol style="list-style-type: none"> <li>a. Awareness on norm, value and believes</li> <li>b. Education on productive entrepreneurship</li> <li>c. Awareness for customers (parents and children)</li> </ol> </li> <li>2. Framework should have the mechanism to identify good practices             <ol style="list-style-type: none"> <li>a. Should accommodate good practices from other industries</li> <li>b. Should be financially feasible for entrepreneurs to follow</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. To ensure ethical and innovative approaches entrepreneurs need to be aware of good practices</li> <li>2. Entrepreneurs who are aware of good practices (GP) tend to be innovative. However, not all GP are financially adoptable</li> <li>3. Customers (parents and children) needs to be aware of GP to promote ethical and innovative approaches</li> <li>4. Children need to be aware of GP to promote online business approach</li> </ol>

## 6.7 Concluding remarks

Discussions on quantitative data findings and analysis in this chapter offer significant understanding of the research objectives, associated themes and research questions this study addresses.

The next and penultimate chapter of this thesis discusses the analysis of this research in conjunction with the reviewed academic literature.

## Chapter seven: Discussion

### Introduction

The research uses qualitative findings from phase one to develop a questionnaire as part of the quantitative data collection (for phase two). The quantitative findings and their analysis are presented in chapter six. Through qualitative analysis this research identifies emerging themes and key variables associated with the research objectives and research questions. This chapter discusses the findings from the analysis in conjunction with the reviewed literature in chapters two and three.

The discussion is organised with the emerging themes of the research, namely: formal versus informal economy; entrepreneurial behaviour; factors influencing entrepreneurial behaviour; impact of institutions; and factors encouraging ethical practices. The chapter produces a summary of the discussion. The final section discusses and analyses the conceptual framework considering the overall data findings and analysis, where findings from phase one tested and confirmed by phase two data analysis are considered. The section makes recommendations for adjustments in the conceptual framework.

### 7.1 Formal vs informal and the general status of the industry

This section discusses the findings addressing the nature and/or type of the industry. Industry size is discussed to enhance understanding of the vagueness associated with the matter. Efforts are made here to identify and establish characteristics of the entrepreneurs operating in this sector.

Phase two of this study surveys 250 street food entrepreneurs and ask them to state how many staff they employ. A significant cumulative figure of 246 (98.4 per cent) respondents state that they employ fewer than 10 employee, with 58.8 per cent (147) of respondents confirming that they do not have any employees. This data confirms street food entrepreneurs selling food to children fall into the informal sector (economy) category of

the industry in Bangladesh, as Chowdhury (2005) confirms that the informal sector of Bangladesh is defined as businesses employing fewer than 10 employees, claiming that 80 per cent of the total labour force in Bangladesh represents the informal sector and falls into the self-employment category (Khairuzzaman et al., 2014). Additionally, Hussain and Leishman's (2013) study informs that street food entrepreneurs in Bangladesh are not classified as part of the formal sector of the country's economy, whereas the formal sector represents \$2.2 billion of the economy. However, this specific finding prompts a debate of formal versus informal industry/economy, the differences between the two sectors, and whether respondents demonstrate any other characteristics of entrepreneurs operating in the informal economy.

Moreover, firm sizes could be a disadvantage in the Bangladesh street food industry in terms of innovation, as the majority of firms in the industry confirmed that they employ fewer than 10 employees, whereas larger organisations are found to be more motivated towards innovative activities (Lopez, 2006).

To investigate the aspect of business registration, respondents in phase two are asked to confirm whether they have a licence or registration to operate on the street. In response to this query, only 16.8 per cent (42) of the 250 surveyed confirm that they have either a licence or registration for their business, while 8.4 per cent (21) state that they do not need a licence. A further 18.4 per cent (46) state that they did not know that they needed a licence (chapter six, Table 6.2). Chowdhury (2005) states having a trade licence to operate in Bangladesh does not mean the business is paying tax or registered in government statistics. A trade licence is usually issued to petty traders just so that they can trade their items, which does not confirm their legal status in government statistics. Supporting Chowdhury's (2005) claims, Kiggundu and Uruthurapathy (2018) say that activities of firms from the

informal sector are not reported in government statistics and many delay registration just to avoid tax (Sarreal, 2019).

Additionally, out of the 250 street food entrepreneurs surveyed in phase two, 79.6 per cent (199) of respondents are operating in the industry for less than 10 years, which includes 54.4 per cent operating for less than 5 years in the industry (chapter six, Table 6.1). This shows the tendency of short-term business plans; Sarreal (2019) claims this tendency is a typical characteristic of an informal business which may lack education, skills, technology and capital.

Supporting more characteristics of entrepreneurs of the informal economy, this study finds 33.2 per cent (83) of the respondents are not sure about the future of their business, whereas another 15.2 per cent (38) intend to save money and invest in better business subsequently and a further 13.2 per cent (33) confirm making the most profit out of their investment as the main intention of their involvement in the street food business (chapter six, Table 6.4). Respondents even inform migrating to foreign countries or being involved in farming is their ultimate intention. Furthermore, these characteristics of entrepreneurs can be related to the rent-seeking behaviours of unproductive entrepreneurs (Faruque et al. 2010; Baumol, 2004; 1996).

Kiggundu and Uruthurapathy (2018) suggest that the informal economy/industry provides opportunities for all to be entrepreneurs and aids socio-economic development of a country. Rothenberg et al. (2016), however, argue that there is an unfair competition between entrepreneurs from the formal and informal industry. Rujoiu (2019) claims that the informal industry can take forms of abuse of advantage scale, criminal activities and/or fraud.

To conclude the discussion on the general status of the informal Bangladesh street food industry, an urban pull factor plays a strong role in the migration process among the poor

and middle-income population from Bangladesh's rural areas. Due to lack of education, experience, skills and training, rural migrants are experiencing difficulties in ensuring employment in the formal sector. These factors have had a significant role in the growth of the informal sector in the country (Chowdhury, 2005).

The experience of data collection and analysis has provided insight to understand that the lack of registration mechanism is the main reason it is problematic obtaining the number of street food entrepreneurs operating in Dhaka. Literature on Bangladesh's street food entrepreneurship poses similar problems. In relation to providing the number of informal street food entrepreneurs, Faruque et al. (2010) state that collecting official numbers of street food retailers is difficult because this group of entrepreneurs from the informal industry do not pay tax. However, Ahmed (2000) postulates that there are as many as 200,000 street food vendors in Dhaka.

The next section discusses the findings and analysis associated with the theme of entrepreneurship and productive entrepreneurial behaviour. The first objective of this research is to investigate productive entrepreneurship; thus the discussion has significant importance to the thesis.

### **7.2 Entrepreneurial behaviour: Productive, unproductive or destructive?**

In Bangladesh, urban pull factors play an important role in the migration process (Chowdhury, 2005). Due to lack of education, skills, training and experience, these rural migrants engage in street food vending businesses, as they find it difficult to ensure employment in formal sectors. This engagement and development of new markets, new start-up initiatives and new products can claim evidence of entrepreneurship yet can be debatable in the ground of entrepreneurial behaviour. However, they contribute towards the socio-economic environment of the country (Chowdhury, 2005). It is important to note that this study finds that 79.6 per cent (199) of respondents have been operating in the

industry for less than 10 years, of which 54.4 per cent (136) have been operating for less than 5 years (chapter six, Table 6.1). These statistics clearly show Sauka (2008) and Baumol's (2004) entrepreneurial characteristics showing risk-taking efforts, development of new products and markets, start-up of a new organisation, and growth of existing organisations among the Bangladesh street food entrepreneurs. However, none of these characteristics ensure that the entrepreneurs are actually innovative, which is a form of productive entrepreneurship, as Sauka (2008) refers to innovation as 'a form of productive entrepreneurship' since the process discovers new attributes and opportunities.

Furthermore, the literature on developing economies equates innovation with size of firms, while Mitra (2020) suggests that, regardless of the state of the economy, entrepreneurs thrive when they can stimulate change. Lopez (2006), however, argues that large organisations or entrepreneurs are more motivated to engage in innovative activities and to contribute innovations to the market. Skilled labourers have a significant and positive impact on the probability of these firms undertaking innovation activities and becoming successful eventually. In contrast, for the industry selling street food to children, firm sizes could be a drawback. This research finds a cumulative (246) 98.4 per cent of respondents employ fewer than 10 employees, which includes 58.8 per cent (147) without any employees. This confirms their categorisation of entrepreneurs from the informal economy and firm sizes comes as a disadvantage to become innovative. Yet irrespective of the size and age of the business, this study identifies innovation among respondents from the Bangladesh street food industry.

When this study investigates uniqueness of business, key attributes of innovative practices and best key feature against age, the research finds statistical associations of all the features with age of the business (chapter six; Tables 6.10, 6.11 and 6.13). Additionally, when key attributes of ethical practices are tested, a statistical association is found with size of the

business. These findings clearly support the arguments of Baumol (2004; 1990), where claims are made that maturity (age) and growth (size) of business are essential for an entrepreneurial venture to be innovative.

In parallel, while investigating in depth on key attributes of ethical practices and innovation, this research finds respondents have chosen 'Local ingredients are carefully selected by me' for both sections (68.8 per cent and 79.6 per cent; see chapter six, Table 6.9). Though respondents are given a diverse range of options, their selections are not varied. Furthermore, when respondents are asked about the uniqueness of their business, they report: 1) quality products at low prices (32.4 per cent/81); 2) no harmful chemicals used (31.6 per cent/79); and 3) my own recipe (21.2 per cent/53) (chapter six, Table 6.7). Data presented here suggests that in consideration of basic product and process innovation the respondents are either behind or struggling to meet expectations. This is consistent with Saguy and Sirotinskaya's (2014) study findings. Saguy and Sirotinskaya (2014) suggest that firms in the food industry are faced with numerous complex challenges that relate to innovation and struggle to compete in an innovative environment. One of the unique challenges faced by small and medium-sized firms are adapting to innovation for the food industry's special needs. The researchers concludes that collaboration, adapting to innovation and considering social responsibility strategies could be beneficial for the industry and firms operating within (Saguy and Sirotinskaya, 2014).

Alongside investigating key attributes of ethical practices and innovative approaches, this study investigates online business approaches, since online business is associated with technology and technological innovation is found to be crucial (Tonoyan et al., 2010). In addressing the importance of technological innovation, Earle (1997) suggests that innovation in the food industry should combine technological innovation with social and cultural innovation and the innovation should occur throughout the entire food system (e.g.

producer, seller, wholesaler, retailer, importer, and so on). Earle (1997) further notes that if innovation can be approached and established at such a level, ultimately a new and/or improved consumer product and service can be sustained. In the case of the Bangladesh street food industry, specifically those selling food items to children, traditional items are offered and evidence of new products or technological innovation is not present. Therefore, this study finds innovation – in terms of e-commerce – as technological innovation.

On analysing the data, no association of online business with age of the business is found, but a strong association is found with size of the business. As a result, entrepreneurs can adopt an online business model irrespective of the age of their business, if they have experienced sufficient growth (size) (Baumol, 2004) to support the online business model.

Literary discussions on productive entrepreneurship accommodate deliberations on unproductive and destructive entrepreneurial behaviours (Baumol, 1990). Therefore, this research widens the scope of objective one and investigates common techniques of food adulteration (risking food safety) among the entrepreneurs selling street food to children. This investigation develops a bridge with objective two, where factors acting as barriers for productive behaviour are investigated.

In addressing unproductive behaviour of street food entrepreneurs, Hussain and Leishman (2013) confirm the growing food processing industry in Bangladesh encounters sensitive concern of quality and standard of the product. Unfortunately, the quality of the finished product is usually very poor due to the unavailability of high-quality raw material on a regular basis and trained manpower.

Hussain and Leishman (2013) find that to maintain food safety standards and hygiene throughout the entire process (from accessing raw materials to supplying finished product to the market), there is no organised and systematic effort from the industry itself, or from government regulatory bodies. Currently the majority of Bangladesh's food industry is

unable to meet the food standards and safety requirements of the international market. Evidence of this claim is found by this study, where the majority (83.3 per cent/208) of participants confirm that they do not have formal registration to operate. Indeed only 16.8 per cent (42) of the total 250 respondents claim to have registration or licence to operate (chapter six, Table 6.2). Evidence in the literature does not acknowledge a trade licence as a legitimate registration of business, due to its lack of tax-paying responsibility and accountability to a governing body (Chowdhury, 2005), whereas, according to Mathias et al. (2015) informal economic activity (i.e. unregistered businesses) is described as illegal and unproductive. This claim is supported by Webb et al. (2009), who describe these activities as ways that entrepreneurs can recognise and exploit opportunities (Mitra, 2020), which is identified as rent-seeking behaviour of entrepreneurs (Baumol, 1990).

The majority of entrepreneurs operate without any registration and 58.8 per cent of the respondents are sole traders, without any further employees working for them. This chapter claims that there are conflicting opinions on the characteristics of entrepreneurs representing the informal economy. Further claims towards negative characteristics are found in Hobsbawm's (1969) study. According to Hobsbawm (1969), even though it is often assumed that an economy of private enterprise has innovative intentions, it is not always the case. Hobsbawm (1969) finds that private enterprises are biased only towards profit.

Analysis of this study supports the results of Hobsbawm's (1969) study that finds private enterprises/entrepreneurs relate behaviour towards profit-making intentions. However, this research fails to generate any evidence suggesting that entrepreneurs are destructive.

The next section of the chapter presents a discussion on the factors influencing the entrepreneurial behaviour of Bangladesh street food.

### 7.3 Factors influencing entrepreneurial behaviour

This research includes direct questions investigating factors acting as barriers for productive entrepreneurship to provide insight into why some entrepreneurs show unproductive entrepreneurial behaviours. This may also advise as to what mechanism can protect entrepreneurs from unproductive and destructive behaviours by creating barriers to such actions.

This study invites respondents to identify the factors they consider the main barriers for productive entrepreneurship in the industry. First, 25.2 per cent (63) of respondents claim access to funds as the main barrier, particularly among those who are operating for less than 5 years in the industry, supporting Hossain's (2009) evidence claiming financial crisis is a driver for food adulteration acts. Second, 24.8 per cent (62) of respondents suggest lack of awareness on safe food as the main barrier for productive entrepreneurship. A cross-tabulation exercise finds that entrepreneurs who are operating for more than 10 years mostly select the second response. This finding complements Khairuzzaman et al.'s (2014) study informing lack of education and illiteracy as a concern among street food retailers in the country. Third, a lack of knowledge on safe food is selected by 20.8 per cent (52) of respondents, which again supports Khairuzzaman et al.'s (2014) study. A cross-tabulation analysis finds this issue is dominantly selected by entrepreneurs operating between 5 and 10 years (chapter six, Table 6.12; Graph 6.14).

Considering the literature on street food entrepreneurs in Bangladesh and findings from the current research, some debatable and agreeable conclusions are found. First, although Khairuzzaman et al. (2014) suggest entering the street food industry is easy and requires small investment, the current research finds new entrants to the industry struggle with funding. Poor registration mechanism may make entry to the industry easier but financing the business for younger entrepreneurs may not be so (Hossain, 2009). This finding relates

to the rent-seeking behaviour discussed earlier, where Baumol (2004) suggests independent entrepreneurs become rent-seekers to minimise risk and survive among competition, here the financial risk.

Entrepreneurs who survive early financial struggles and progress between 5 to 10 years with their business encounter a different set of factors which may lead them to become unproductive. Knowledge on safe food is the main dominant barrier for entrepreneurs in this category. Eventually, entrepreneurs who progress further with their business and go on to operate beyond 10 years are faced with a similar barrier, although this may not be directly related with knowledge but with their awareness of safe food. These two findings directly support Khairuzzaman et al.'s (2014) study.

The respondents/entrepreneurs are asked to identify possible reasons for unproductive and destructive behaviour in the Bangladesh street food industry. First, a majority 83.6 per cent (209) of respondents think unethical practices reduce production costs (see Appendix 3, Table 6.55). Second, respondents claim entrepreneurs who are involved in food adulteration are making more profit compared to those who are operating ethically. A significant 80.8 per cent (202) of responses are in favour of this statement (Appendix 3, Table 6.54). These results favour Hossain et al.'s (2008) findings that entrepreneurs are aware of the financial gains of being unproductive and having involvement in food adulteration practices, which may tempt the ethical entrepreneur to become unproductive to remain financially competitive in the industry and gain comparative advantage by compromising their productive entrepreneurship practices (Sauka, 2008).

Besides, this study investigates common techniques used by entrepreneurs to adulterate street food. Respondents asked to identify the most common technique of food adulteration refer to: use of sweeteners (58/23.2 per cent); ineffective use of expiry dates (56/22.4 per cent); use of inferior raw materials (49/19.6 per cent); and use of formalin

(41/16.4 per cent) (chapter six, Table 6.12). These findings provide strong evidence to support Hussain and Leishman (2013), Hossain (2011) and Hossain et al.'s (2008) claims that the quality and standard of food products in the market impose major concern about the business ethics of Bangladesh street food entrepreneurs. Their studies make claims of use of calcium carbide, formalin and low-cost colourings in food items. Furthermore, findings of this study also support claims of Solaiman and Ali (2014), Kamala (1974) and Sumar and Ismail (1995), who suggest that the techniques of food adulteration are: 1) use of various harmful chemicals, such as formalin, pesticide and toxic colours, to make the food attractive and keep foods fresh; 2) storing, selling and/or serving consumers rotten or poisonous foods in unhygienic surroundings; and 3) the food habits of people in Bangladesh, as they are fond of spices and, taking advantage of this fondness, entrepreneurs and manufacturers add toxic substances with different spices and edible oils.

However, elsewhere, when the respondents are asked about 'use of industrial colours' in the food items they are retailing, 51.2 per cent (128) of respondents state that there can be industrial colour in their food rather than food colour (see chapter six, Table 6.18), although results in Table 6.12 (in chapter six) show that only 9.6 per cent (24) of respondents think the use of textile colour is a technique of food adulteration. This finding raises two questions: first, whether the entrepreneurs have any knowledge or awareness regarding the use of textile colours in food items; and second, whether they are trying to mislead the researcher regarding their unproductive/destructive entrepreneurial behaviour.

In responding to these questions, the research analyses the data using chi-square tests and finds a statistical association between the 'techniques of adulteration' with 'awareness of ingredients'. This means if entrepreneurs can be made aware of the impacts of ingredients they are using that lead to food adulteration (i.e. industrial or textile colour instead of food colour), this may potentially mitigate such unproductive behaviours. Second, this research

finds an association between 'techniques of adulteration' and 'licence to operate'. This finding implies that a licensing mechanism would bring entrepreneurs under a regular quality/standard testing mechanism, which may reduce unproductive behaviours among entrepreneurs operating in the industry selling street food to children in Bangladesh.

Hussain and Leishman (2013) recommend an improved quality control system for the whole food industry of Bangladesh. It is expected that an improved quality control system will also mitigate the concerns with food adulteration. This study finds evidence supporting the claim that the current quality control system is not effective: 64.4 per cent (161) of respondents state that a number of food inspectors operating in the industry are corrupt but are supposed to ensure quality control (Appendix 3, Table 6.32).

Chi-square tests find a strong association between 'licence to operate' with 'regulatory structure' and 'food should be standard tested'. This means licensing and registration mechanisms play a pivotal role in ensuring effective quality control and standard testing system in the Bangladesh street food industry. Nonetheless, further analysis finds no association between 'effective regulatory structure' and 'type of retailers', meaning that, irrespective of type of retailer (i.e. retail only versus producer-retailer), all entrepreneurs need to be addressed by the regulatory structure to ensure safe street food for children. However, no association is found between 'food should be standard tested' and 'age of business', which suggests that, irrespective of the age of the business, all entrepreneurs operating in the industry should be subject to standard testing by the authority.

To conclude the discussion on factors influencing entrepreneurial behaviour, it is important to reintroduce discussions of the fundamental arguments of the formal and informal economies. Chi-square tests in this study find no statistical association between 'licence to operate' and 'type of retailer', which means that, irrespective of type of retailer (i.e. retail only versus producer-retailer), all retailers should have a licence or registration to operate

and represent the formal economy (Kiggundu and Uruthurapathy, 2018; Rothenberg et al., 2016). This should facilitate productive entrepreneurial intentions, as the study does not find any statistical association between 'age' and 'barriers to productive entrepreneurship'; thus, this means that, irrespective of the age of the business, it can be productive. However, as business registration augments legitimacy and requires compliance with law, many new entrepreneurs delay the registration process to defer payment of registration and other ancillary or associated costs. In addition, unregistered businesses tend to be exempt from paying taxes (Sarreal, 2019).

Finally, Sarreal (2019) suggests entrepreneurs enter the informal sector due to its low requirements for education, skills, technology, capital and ease of entry (also Khairuzzaman et al., 2014). In the case of entrepreneurs from the street food industry, no statistical association is found between 'undertaking training on food safety' and 'type of retailer', suggesting – irrespective of the intention of the of the entrepreneur in the informal economy – all entrepreneurs should undergo training to ensure food safety. Moreover, the study does not find any statistical association between 'awareness of ingredients' and 'clear and concise information' either. This means entrepreneurs operating on the street need to increase their awareness about the ingredients they use, irrespective of whether information is provided by the regulatory structure.

The next section presents discussion on the role of formal and informal institutions in the Bangladesh street food industry.

#### **7.4 Role of institutions**

Discussion of this section commences with findings on the formal institutions, incorporating components of regulative and normative institutional pillars and followed by a discussion on informal institutions, where cultural-cognitive components of institutional pillars are considered. To construct the discussions on formal institutions, licensing mechanisms, the

role or BSTI (Bangladesh Standard Testing Institute) and the role of CAB (Consumers Association of Bangladesh) are considered. The role and requirements of current regulations are subsequently discussed.

Importance of the licensing mechanism is emphasised on numerous occasions within this chapter, where the lack of licensing mechanism encouraging abuse of the system, unethical criminal practices and fraud is mentioned within literary discussions (Rujoiu, 2019). The investigation of this study includes the concept of online business, as the online business approach is found to be an innovative approach in phase one of the study. In this regard, this research finds evidence that a licensing mechanism is important and finds a statistical association between 'licensing mechanism' and 'online business approaches'. These findings suggest entrepreneurs operating in the Bangladesh informal street food industry believe there is a need for a licensing mechanism, which will potentially ensure transition from the informal to the formal economy and ensure establishing regulative institutional pillars (Scott, 2014).

Alongside licensing concerns, issues with education and training have also been highlighted significantly by Faruque et al. (2010) for entrepreneurs in the informal economy. Faruque et al. (2010) suggest age (both of entrepreneur and business), education and training can have significant impacts on business operation, as these can drive the intentions and approach to run the business. This study finds a strong statistical association between 'no access to information' and 'common technique of food adulteration', suggesting that due to a lack of information (for example, education, knowledge and training) entrepreneurs from the Bangladesh street food industry may have been involved in adulteration of the food items they are offering. According to Scott (2005) and Dimaggio and Powell (1983), education, training, association and professional networks can be diffused through the normative institutional mode and the normative pillars are grounded on the logic of 'appropriateness'

(Scott, 2014). At this point it is essential for this study to review what impact the government regulations are having on the industry, specifically to encourage fair competition and reduce the rate of food adulteration.

Solaiman and Ali (2014) note that the government of Bangladesh (GOB) is aware of this endemic problem of food adulteration and has introduced laws and regulatory bodies to combat its onslaught, but unfortunately success is yet to be achieved. Notably, the GOB has largely failed to draft useful laws, has noticeably failed to enforce existing laws, and regulators have completely failed to detect and penalise acts of adulteration (Solaiman and Ali, 2014). It has also been reported that, although in Bangladesh number of fragmented legislations are in place, they do not 'fully reflect international standards' and their enforcement seems ineffective. This research finds similar results. This research could not find any statistical association between BSTI and their contribution in key attributes of ethical practices among entrepreneurs. This suggests that the current regulations of the GOB imposed through BSTI will be unable to encourage ethical practices. However, this study finds the BSTI can improve awareness among entrepreneurs of the attributes of ethical practices.

In summary, this research claims that even if BSTI fails to ensure ethical practices with current regulations, it can still increase awareness among entrepreneurs about ethical practices, through the effective implications of the components of regulative institutional pillars (Scott, 2014). According to Scott (2014, p. 62; 1995), indicators of regulative pillars include 'laws, codes, rules, directives, regulations and formal structures of control' that govern behaviour. Alongside BSTI, this study finds CAB can have a similar impact on entrepreneurs to operate more ethically. The results show CAB can improve awareness among retailers on entrepreneurial attributes of ethical practices.

Moreover, this research finds BSTI can have a significant impact on entrepreneurs by encouraging fair competition in the industry. The informal economy allows entrepreneurs to be unproductive and receive unfair advantages among their competition (Rothenberg et al., 2016) and that the informal economy can take forms of abuse of advantage scale, criminal activities and/or fraud (Rujoiu, 2019), if the components of the regulative pillars are not implemented effectively (Scott, 2014; Jennings et al., 2013; North, 1990). In relation to these claims, this research finds that BSTI can play a crucial role in ensuring a positive impression of the informal economy. Analysis of this research shows a statistical association between 'BSTI encouraging fair competition' and 'uniqueness of business' and also 'common technique of food adulteration'. Thus, through encouraging fair competition in the informal street food industry, BSTI can encourage entrepreneurs to be unique and be more productive by encouraging them not to be involved in food adulteration. As Kostova (1997) suggests, the components of country's regulative institutional characteristics can promote certain types of behaviours and restrict others through existing rules and regulations in a particular national environment. Furthermore, in relation to common techniques of food adulteration, this study finds CAB can also have a significant impact alongside BSTI to improve the situation.

Although BSTI and CAB can have a positive impact on encouraging fair competition and reducing food adulteration, the major concern remains with the food adulteration Acts in Bangladesh. Rahman and Rahman (2012) states that food adulteration Acts in Bangladesh are outdated, which lowers the effectiveness of law against the situation and, thus, the ill-practitioners are getting away with crimes committed. Currently the law enforcement authority for food standards gives a drive to identify punishable offences and file cases under the Bangladesh Standard Testing Institute (BSTI) Ordinance 1985 and Pure Food Ordinance 2005 (Huda et al., 2009). It is important to note that this research is not in a position to introduce or propose newer regulations or government Acts; nevertheless, it

investigates awareness of the Acts and their impacts among the moderators of the industry and the entrepreneurs operating within. In analysing the data, the research finds an association between 'modernisation of regulations' and 'common techniques of food adulteration'. Furthermore, an association between 'modernisation of regulations' and 'online business approaches' is also found. These results suggest modernisation of regulations is essential in ensuring innovative business practices, and in bringing the rate of food adulteration down. Additionally, it can also be claimed that effective implementation of a combination of components from Scott's (2014) regulative and normative institutional pillars is crucial for the current circumstance that this research investigates.

At this point it is essential to mention that modernisation of rules and regulations may not be enough in having a positive impact on the industry unless entrepreneurs operating within the informal industry accept the rules and regulations. This study finds an association between 'welcoming rules with regulations' and 'common techniques of food adulteration'. An association between 'welcoming rules and regulations' and 'key attributes of innovative practices' is also found. These results suggest that for positive impacts with the rules and regulations, entrepreneurs from the informal economy need to welcome formal institutions and only then the innovative practices will be encouraged, and food adulteration practices will be reduced. Furthermore, this welcoming behaviour can reflect the cultural-cognitive institutional pillar, as Scott (2014) defines cultural-cognitive institution as 'patterns of thinking, feeling, and acting: mental programs, or the "software of the mind"'.

In relation to online business approaches, this research refers to the study of Holmes et al. (2016) on institutions. Holmes et al. emphasise the importance of institutionalisation of technology. With regard to technology, Etzkowitz and Leydesdorff (2000) state that government is in a prime position to authorise resources alongside creating and enforcing laws; the technology policies they endorse help to support and structure a country's

innovation infrastructure. In addition, Bradley and Klein (2016) claim that formal and informal institutions benefit domestic manufacturers at the expense of domestic consumers, and encourage firms operating in the industry to be more innovative. However, there is debate about the appropriate role of government and the appropriate level of intervention to promote productive entrepreneurship (Kim et al., 2012). This means that the GOB has an essential role to play in technological and institutional development and encouraging an online business model.

Alongside the struggle to make entrepreneurs innovative, governments in developing countries encounter other obstacles from the informal sector. Research suggests that one of the major obstacles for firms to become innovative is corruption. It is evident that entrepreneurs from developing countries (emerging markets) are more likely to engage in corruption compared to entrepreneurs operating in a developed economy (Tonoyan et al., 2010), which dismisses effective implementation of the components of the regulative institutional pillar (Scott, 2014) and suggests preconditions which should be considered in countries of the developing economy to reduce corruption (Tonoyan et al., 2010). According to Tonoyan et al.'s (2010) study, effective institutionalisation of the legal and financial frameworks is fundamental in reducing corruption in the developing economy. Additionally, Tonoyan et al. claim that the informal sector is more likely to accommodate corruption, compared to businesses from the formal sector. In support of these claims of corruption, this study finds similar results. When the entrepreneurs are asked to rate their opinion on corrupt food inspectors, a significant 64.4 per cent (161) of participants agree that a number of food inspectors are corrupted. Whereas another 13.6 per cent (34) of respondents did not want to give a definite answer to this question and chose 'neither agree nor disagree' (Appendix 3, Table 6.32). Considering the results and literary arguments, corruption in the industry is not helping entrepreneurs to be productive (Scott, 2014). In an attempt to improve the issues with corruption in developing economies, Tonoyan et al. (2010) state

that public campaigns and a significant number of entrepreneurs and public officials (bureaucrats) have to be convinced of the social and economic costs of corruption. Eventually, formation of effective anti-corruption regulations require attention that collectively provide the contexts for industry (e.g. street food) and entrepreneurs to flourish in a developing country.

This study finds that business reputation plays an essential role in determining the success of a business. Research shows that business reputation is the second-most important factor associated with the success of a business after quality of products and services. The study claims that business goodwill or reputation has grown in importance in recent years (*The Korea Herald*, 2006), with 98 per cent of respondents stating that goodwill of their business is important. An analysis of the data on goodwill finds an association between 'importance of goodwill' and 'key attributes of innovative practices'. This means goodwill instigates innovative entrepreneurial behaviour and the findings evidence strong importance of cultural-cognitive institutional pillars (Scott, 2014; 2013; 2008) among the participating entrepreneurs.

The next section discusses the aspects which could encourage ethical and innovative practices.

### **7.5 Factors encouraging ethical and innovative practices**

The theme of factors encouraging ethical and innovative practices is highly influential for objective four of this research. The discussion of this theme includes aspects such as licensing mechanism, access to information, awareness of entrepreneurs, awareness of customers (both children and parents), existing good practices and other aspects related to framework and entrepreneurial behaviour within the industry. The discussion incorporates components of each of the institutional pillars suggested by Scott (2014): regulative, normative and cultural-cognitive. The section commences with discussion on the formal

framework and follows with a discussion on good practices that can be adopted by entrepreneurs of the informal industry to become productive.

Importance of licensing mechanism is stressed on numerous instances within this chapter, as lack of licensing mechanism encourages abuse of systems, unethical criminal practices and fraud discussions (Rujoiu, 2019; Scott, 2014). Williams and Liu's (2019) study on the informal economy emphasises the importance of bringing businesses within the licensing mechanism for better management of the entire industry. This study finds that entrepreneurs operating within the Bangladesh street food industry feel the need for a licensing mechanism, which will potentially ensure transition from the informal to the formal economy that includes any online business intentions. Establishing regulative institutions (Scott, 2014) through licensing informal businesses will enable authorities to encourage adoption of formal frameworks to operate the business with improved ethics and innovation.

Moreover, this research finds a statistical relationship between 'no access to information' and 'common technique of food adulteration'. This suggests that entrepreneurs are involved in adulteration practices due to lack of information or they do not have adequate information on how to operate ethically or what constitutes 'illegal' in their operation. This finding confirms the absence of normative institutional pillars (Scott, 2014) having an impact on the industry. Importance of access to information in Bangladesh's street food industry is identified in the literature (Muzaffar et al., 2009; Faruque et al., 2010; Noor, 2016; Husain et al., 2015). This is supported by the findings in this study which find a direct relationship between 'access to information' with other variables associated for an enterprise to be ethical and innovative with their approaches.

By now this study establishes that entrepreneurs operating in the industry selling street food to children in Dhaka, Bangladesh, represent the informal sector of the overall business

categories of the country. Bringing these informal businesses under formal infrastructure will make the process easier for any framework or business model for adoption and to encourage ethical and innovative approaches.

However, costs of business registration, licensing, permitting and insurance requirements are expected to impede formal activity (Mathias et al., 2015). Khairuzzaman et al.'s (2014) study on Bangladesh's street food industry finds that the informal food industry of Bangladesh requires small investment and is easy to enter. In many cases these entrepreneurs are uneducated, lack knowledge and come from poor backgrounds. As a result, they fail to maintain the environment, hygiene and safe food awareness requirements. Additionally, this discussion develops the question as to whether the aspects of education and knowledge should be made prerequisites for businesses in achieving formal status.

Alongside the above-mentioned obstacles for entrepreneurs from the informal economy, there are other parameters not necessarily acting in favour to become ethical or innovative and subsequently forcing them to remain and operate within the informal economy. Sauka's (2008) research shows that large SMEs are more productive as organisations in comparison to entrepreneurs from the informal economy. Higher level of education is mentioned as an advantage of larger SMEs. Earle's (1997) study claims that there are multiple areas where innovation can be incorporated into the food industry. Innovations can be focused or targeted in areas of food technology, for instance new product development, process engineering, consumer needs or food qualities. If sustainable innovation can be achieved in one area of the food industry or food system, positive impact or change can be expected from other areas.

Saguy and Sirotinskaya's (2014) study on entrepreneurs (mainly small and medium-size) of Bangladesh's street food industry suggests they struggle to compete in an innovative

environment, especially in regard to new product development and innovative approaches of operation. As a result, this study investigates 'awareness of good practices (GP) among entrepreneurs' and 'innovative approaches'. In analysing the variables, this research finds an association between 'entrepreneur's awareness of GP' and 'innovative approaches'. This ensures the knowledge and awareness of GP will encourage entrepreneurs to be innovative, which combines implementation of normative and cultural-cognitive institutional pillars (Scott, 2014; 2008). Furthermore, this research finds association between 'entrepreneur's awareness of GP' and 'not financially able to follow GP', suggesting having the awareness of the GP is not sufficient for entrepreneurs, as the entrepreneurs operating within the industry selling street food to children in Bangladesh do not have the financial strength to invest significantly to follow these good practices.

Ultimately, several questions have arisen from this study: Do all the responsibilities of the industry fall for the entrepreneurs to follow and deliver productive outcomes? As the customer and consumer (both parents and children) of this industry selling street food to children, do we have any responsibility to bring positive changes to this industry? Huda et al. (2009) believe food adulteration is a major problem especially in urban cities of the country and raises major health concerns for urban citizens of Bangladesh. Evidence of adulteration is reported nationally, where the use of chemical substances such as formalin, artificial sweeteners, carbide, DDT, urea and textile colour are highlighted and food adulteration is also named as a 'silent killer' of the country (Ahmed, 2012; Chowdhury, 2012; Solaiman and Ali, 2014; Anam, 2012a). Hossain et al. (2008) claim that in Bangladesh 93.7 per cent of consumers are aware that various foods and foodstuffs in the country contain hazardous chemicals. Alarmingly, 95.5 per cent of these consumers are aware that these adulterated foods and foodstuffs are harmful to their health. Yet as a direct stakeholder of the industry, the customer/consumer body does not have a significant impact on entrepreneurs operating within the street food industry. Thus, the question arises: Does this imply that the

customers/consumers of these street foods are not aware of the sources of safe food, which are categorised as good practices? The data analysis shows an association between 'parents need to be aware of good practice' and 'ethical practice of entrepreneurs', meaning awareness of good practices among the parents who are purchasing street food for their children can influence the entrepreneurs to operate ethically. Additionally, in relation to the children who are the consumers of these street foods, this research finds an association between 'children need to be aware of good practices' and 'innovative approaches of entrepreneurs', suggesting awareness of children of existing good practices will encourage entrepreneurs to be more innovative with their business (product and services). Again, institutional pillars can play an influential role in establishing these expectations.

The next section combines the key claims this research makes through the discussions and presents as a summary.

## **7.6 Summary of the discussion**

Through the discussions in the 'Formal versus informal industry' section and considering the legal status, industry categorisation and characteristics of informal sector in Bangladesh, this study finds evidence of characteristics supporting informal industry. First, this research finds that entrepreneurs selling street food to children in Dhaka, Bangladesh fall into the informal sector (or economy) category. Moreover, due to ineffective regulative institutional pillars in the form of poor registration mechanisms, the street food industry is unable to meet food standards and safety requirements. Consequently, irrespective of type or age, all entrepreneurs should have a licence to operate and undertake regular training on safe food to support standards testing and make regulatory structures effective. Besides ensuring licensing for all entrepreneurs, modernisation of regulations is needed, which should be inclusive of online business. In short, the components of regulative institutional pillars have to be established effectively.

Second, discussions on 'Entrepreneurial behaviour' suggest that entrepreneurs from the Bangladesh street food industry are engaged in risk-taking, development of new markets and start-up of new organisations. Moreover, the research confirms that maturity (age) and growth (size) of business are essential for an entrepreneurial venture to be innovative. Notwithstanding, there are concerns that raw materials can be a drawback for entrepreneurs who have intentions of operating productively and becoming innovative. However, adopting online business, which is considered innovative in the street food industry, is not dependent on the age, but rather on the growth the business experiences.

Third, innovative entrepreneurs from the industry selling street food to children are not involved in food adulteration. However, financial gain is the main driver behind street food adulteration instances among unproductive entrepreneurs. Indeed, entrepreneurs adulterating food make more profit, as unethical practice reduces production cost. It is important to note that this research fails to accumulate evidence suggesting destructive entrepreneurial behaviour.

Fourth, this research claims that the main barriers to productive entrepreneurship are access to funds and lack of awareness and knowledge of safe food.

Fifth, BSTI and CAB both need to encourage fair competition and improve awareness to mitigate food adulteration instances. In achieving this, ensuring access to information for entrepreneurs is essential, which could be achieved by ensuring components of normative institutional pillars (i.e. education and training on safe food) are established within the industry, as this research confirms that not all entrepreneurs have access to information. Besides, entrepreneurs are required to welcome rules and regulations and make this a norm (i.e. cultural-cognitive pillar) as this can reduce adulteration practices and encourage innovative practices.

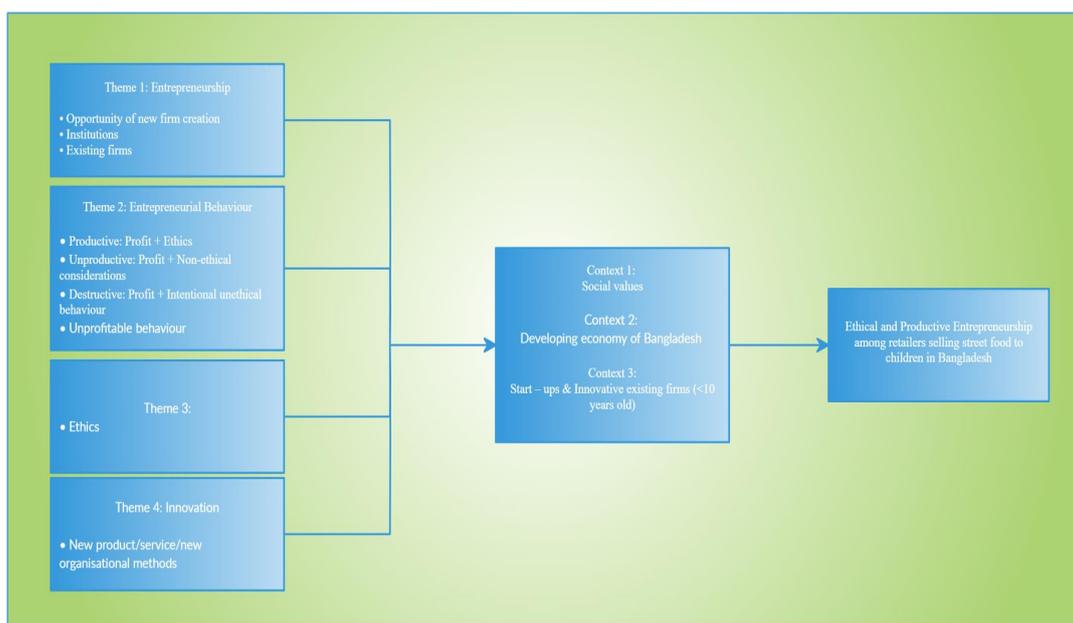
Sixth, awareness of GP is equally important for entrepreneurs, parents and children to encourage innovative approaches, although the research finds that most entrepreneurs are not financially able to follow the GP.

Reviewing the findings and analysis of this research against the literary contributions, the next section discusses and analyses the conceptual framework. Discussions on the conceptual framework contributes to the recommendation for adjustments in the theoretically derived conceptual framework introduced by this study in chapter three (section 3.7).

## 7.7 Analysing the conceptual framework

In reviewing the conceptual framework, this research considers the analysis of findings derived from both phases (qualitative and quantitative). In this process the research identifies gaps in the conceptual framework and suggests amendments. This section commences with reintroducing the conceptual framework (Figure 3.2). An analysis of the conceptual framework is driven in accordance with the components of the framework.

Figure 3.2: Conceptual framework



### 7.7.1 Theme one (Entrepreneurship) findings

The entrepreneurship theme discusses a number of areas such as industry size, existing entrepreneurs/firms operating within the industry, opportunities for new entrants and impact of institutions. In short, attempts are made to grasp an overall understanding of the informal food selling industry. In this process the research accumulates 33 key findings (see Appendix 2) in phase one. Analysing the key findings, both positive and negative impressions are captured and are summarised below.

First, this research finds existence of both formal and informal entrepreneurs operating within the industry selling street food to children in Dhaka, Bangladesh, where this research is guided towards the informal industry selling street food to children, when concerns of food adulteration are discussed. According to several participants of the qualitative phase, institutions (regulatory bodies) are having some impacts on the formal industry, but due to lack of registration process they are unable to moderate the informal street food sector. Furthermore, currently there are no structured mechanisms to recognise and monitor these firms/entrepreneurs from in the Bangladesh street food industry.

Second, the qualitative phase claims the informal industry is larger in comparison to the formal food industry in Bangladesh. For the ineffective regulatory structure and the absence of systematic monitoring, the informal industry has become popular among migrants from rural Bangladesh seeking employment in the cities. However, this informal industry is offering street food items at affordable prices, and thus becomes a unique selling point for customers from below middle-class economy and children who generally cannot afford to purchase safe food items sold in the formal sector.

Third, this research acknowledges claims of numerous food adulteration processes practised (mostly) in the informal street food industry. Inferior raw materials and use of textile colours and sweeteners are mentioned alongside the use of formalin, preservatives and a tendency

to conceal information relating to ingredients used. Furthermore, the qualitative discussions also suggest that some of these practices are intentionally undertaken by unproductive entrepreneurs, whereas a large number of these processes are actually practised due to a lack of or no knowledge and awareness of food safety among the Bangladesh street food retailers.

Finally, claims are made that a weak regulatory structure is encouraging unproductive behaviour among some entrepreneurs, which is supported and encouraged by some corrupt food inspectors.

In summary, this research gathers sufficient data relating to the theme and associated contexts of the conceptual framework. Furthermore, an analysis of theme one recognises few gaps in the industry and by addressing them may make the expected outcome of ethical and productive entrepreneurship achievable.

The next section analyses the components of theme two of the conceptual framework. Emphasis is given on finding out whether entrepreneurs in the Bangladesh street food selling industry are productive, unproductive or destructive.

### 7.7.2 Theme two (Entrepreneurial behaviour) findings

Theme two generated eight key findings (see Appendix 2) from the qualitative phase. These key findings are fundamental to the quantitative data collection and subsequent data analysis and findings. Based on the findings and analysis relating to theme two, the following conclusions are highlighted.

First, a discussion on entrepreneurship and development of the street food industry contributes information towards the existing unproductive practices among entrepreneurs operating in the industry selling street food to children in Dhaka, Bangladesh. New techniques of food adulteration practices in the industry are identified (key finding 36), in

addition to other common food adulteration techniques such as: addition of extraneous matters (key findings 34 and 35) and use of prohibited dyes and preservatives (key findings 38 and 39).

Second, besides recognising these food adulteration techniques, the qualitative phase finds a lack of awareness and knowledge are the main reason behind the existence and practice of these techniques which are tested in the quantitative phase of the research. Moreover, this study finds lack of awareness regarding food adulteration among customers of street food items, which is cause for concern.

Last, these results suggest that food adulteration practices are reasonably common in the informal industry and the absence of a proactive regulatory mechanism to identify common food adulteration techniques (particularly chemical adulteration) is also of major concern.

In summarising theme two, this research reveals numerous comments and results in favour of unproductive entrepreneurial behaviour compared to productive entrepreneurial behaviour. The research fails to establish any evidence supporting destructive entrepreneurial behaviour and finds an absence of regulatory structures supporting food adulteration practices in the industry selling street food to children.

Analysis of both phase results relating to theme three, ethics, are considered in the next section.

### 7.7.3 Theme three (Ethics) findings

The concept of ethics has a wider scope in addressing the street food industry. Theme three addresses ethics influenced by the formal infrastructure and informal institutions like norms, values and morals of the entrepreneurs. Moreover, the concept investigates reasons behind some entrepreneurs behaving unproductively.

First, concern with licensing mechanisms being absent is again identified in relation to establishing ethics within the Bangladesh street food selling industry to children, where this research recognises larger businesses are welcoming the regulations and licensed or registered organisations have access to required information. However, entrepreneurs from the informal industry do not have access to such information and remain uneducated in respect of safe food and food adulteration (key findings 50 and 51).

Furthermore, one of the main reasons for some entrepreneurs to remain unregistered is found to be cost advantages. By remaining unregistered they are not satisfying legal obligations (key finding 62), which benefits them from using inferior raw materials (key finding 61). Mostly these entrepreneurs have limited investments in the business, hence, abiding by the law may not be priority for them (key finding 59). Additionally, the concept of registration is also unclear to entrepreneurs from the informal industry (key finding 60). It is thus becoming increasingly difficult for regulatory bodies to have a positive impact and impression on the food industry (key finding 47).

Furthermore, a lack of manpower for imposing rules and regulations has also been identified as a concern in the industry (key finding 48). The research confirms that the informal industry is larger in size compared to the formal one.

In relation to norms and values, the research claims that young entrepreneurs in the street food industry may have better morals (key finding 45). Possible exposure to information and knowledge may have played a key role in them being ethical with their operation (key finding 44). Moreover, entrepreneurs who are operating ethically have intentions for long-term business and consider establishing goodwill (key finding 43). However, entrepreneurs who are unproductive do not have the intention of staying in business long-term (key finding 49), making profit the main priority for them (key finding 46).

Finally, this research claims government regulations are having some impact in improving awareness (key finding 42), but mostly among entrepreneurs from the formal industry. However, a lack of awareness of safe food is evident throughout the sector, not only among entrepreneurs but also among customers. Additionally, revising some regulations and devising a penalty structure may be necessary (key finding 54). Overall, this requires necessary proactive steps to increase awareness among entrepreneurs and customers of the Bangladesh street food industry (key finding 63). This will entail raising awareness on social norms, value and beliefs (key finding 65), and educating people on food adulteration, specifically children (key finding 64).

In summary, on ethics in the Bangladesh street food industry, the research findings reveal concerns about poor or absent regulatory structures. Additionally, lack of awareness, knowledge and education on food adulteration and safe food among entrepreneurs is also found as concerning.

The next section discusses innovative approaches (theme four) in the form of new products, services or organisational methods development. The research widens the scope to capture evidence of good practice, which could be adopted by entrepreneurs operating in the industry selling street food to children in Dhaka, Bangladesh.

#### 7.7.4 Theme four (Innovation) findings

The qualitative phase contributes six key findings, which are considered in the development of quantitative data collection. This is followed by an analysis of the data findings. The following section addresses the main aspects associated with the innovation theme derived from the analysis.

First, this research finds that use of locally sourced ingredients rather than imported raw materials is an innovative business approach for entrepreneurs to adopt (key finding 69). Additionally, operating an online platform for a street food business is also considered

innovative for the industry (key finding 68), as some evidence of online street food business is present in the country. Both approaches may reduce operational cost for the Bangladesh street food entrepreneurs.

Second, this research supports the claim that good practice (GP) from another industry can be adopted and is transferable in the Bangladesh street food industry (key finding 67). However, no mechanisms are found which recognise or identify GP within the street food industry let alone from another sector (key finding 66).

As a result, the discussion on the concept of innovation recommends a mechanism be developed to recognise good practices, which can be adopted by entrepreneurs who may not have the finance to follow them (key finding 70). In addition, it is recommended that entrepreneurs and customers be educated on street food items produced in this productive entrepreneurship process (key finding 71).

Finally, analysis of the four concepts/themes of the conceptual framework highlights gaps in three main areas, which require addressing if productive entrepreneurship is expected from the industry selling street food to children in Dhaka, Bangladesh:

1. a regulatory framework to oversee the industry;
2. a mechanism to educate and create awareness of food adulteration and safe food among street food entrepreneurs as well as customers; and
3. a mechanism to recognise good practices which can be adopted by entrepreneurs operating in the informal street food industry selling food to children in Bangladesh.

The next section proposes how these adjustments can be introduced in the conceptual framework.

#### 7.7.5 Proposed amendments to the conceptual framework

This research proposes additional dimensions for inclusion in the conceptual framework.

### **Regulative institutions (regulatory framework)**

This research finds that the issue of food safety and adulteration is mostly visible in the informal street food industry where entrepreneurs do not have registration. As a result, components of the regulative institutional pillars are unable to regulate the industry appropriately. The dimension of a 'regulative institution' can include the following elements:

- Registration mechanism for all entrepreneurs;
- Ensure systematic and regular monitoring;
- Review and update regulations;
- Review and update penalty structure;
- When possible establish entry requirements for new entrants;
- Ensure systematic governance and oversight on the industry.

### **Cultural-cognitive institutions (good practices)**

This research finds that there is no mechanism to recognise good practices or components of cultural-cognitive institutional pillars in the Bangladesh street food industry. For this reason, entrepreneurs with productive intentions are unable to find an appropriate approach that can be adopted to enhance their existing business. Thus, a dimension addressing 'Cultural-cognitive institution' can include the following elements:

- Bank of good practice;
- Mechanism to declare good practices;
- Mechanism to access good practice bank;
- Mechanism to publicise good practice;
- Consultation services on how the good practice can be adopted.

### **Normative institution (awareness programme)**

This research finds that due to no restriction of entry the industry has become popular among Bangladeshi rural migrants, with many of them coming from poor educational, skills, training, knowledge and awareness backgrounds. Additionally, the customers of the street

food industry food are also found to have poor awareness of safe food. Hence it is necessary to raise awareness and knowledge among entrepreneurs and customers. The 'Normative institution' dimension addressing awareness programmes can include the following elements:

- Mandatory training programmes for entrepreneurs;
- Educating entrepreneurs on food safety and adulteration;
- Enhance knowledge of entrepreneurs of food safety and adulteration;
- Enhance awareness of entrepreneurs of food safety and adulteration;
- Enhance knowledge and awareness of customers of food safety and adulteration.

## 7.8 Concluding remarks

Many of these findings will contribute toward the realm of the literature as new information and some will either support or provide counterarguments for existing literary claims. Inclusion of a section summarising the discussions and analysing the conceptual framework have benefited reading and capture the fundamental findings of this study. In investigating entrepreneurial behaviour of the informal industry selling street food to children, this study fails to accumulate any evidence suggesting they demonstrate destructive entrepreneurial behaviour. However, there is significant evidence to suggest unproductive behaviour.

The next chapter draws conclusions of the thesis and accordingly makes several recommendations.

## Chapter eight: Conclusions and recommendations

### Introduction

In this chapter the analysis, findings and discussions carried out in earlier chapters are briefly reviewed to draw the conclusions of the research. Conclusions are drawn from the entire study, rather than any particular section of the research.

The research begins with the intention to explore and investigate the food adulteration instances reported in the Bangladesh food selling industry to children from an entrepreneurial perspective, where four objectives and six research questions are developed, addressing four main themes as areas of investigation. The research adopts a mixed-method approach. In sequential exploratory methods, qualitative research at phase one and quantitative research at phase two are designed, where findings from phase one (qualitative) are used alongside theoretical underpinnings to develop the questions for the questionnaire used at phase two (quantitative). In this process the phase one findings are tested at phase two with different participants who have completely different interests to the phenomenon this research investigates: entrepreneurial behaviour among the street food retailers selling street food to children.

Furthermore, analysis of qualitative phase narrows down the research interests further. The qualitative phase suggests the main concerns of food adulteration and food safety are central within the informal street food industry in comparison with the formal sector selling food to children; substantial emphasis is given to the informal industry selling street food to children.

Suggestions and results from the qualitative phase are fundamental in steering this research towards the informal industry selling street food to children from the overall child food industry. Subsequently this research becomes the first study of its kind to investigate street

food sales from the perspective of child food and entrepreneurship behaviour of the street food retailers in Bangladesh.

Alongside illustrating the conclusions, this chapter also attempts to identify limitations of the study, make recommendations and communicate how the research makes a contribution to the body of knowledge and broader society.

## **8.1 Research findings**

The following sections of this chapter aim to draw conclusive findings against the four research objectives. However, alongside investigating the objectives, this research also considers investigating the general status and characteristics of the industry selling street food to children in Dhaka, Bangladesh. Notably, the research finds that these characteristics play a fundamental role in shaping the behaviour of the entrepreneurs operating within the industry.

First, Chowdhury (2005) informs that the industries are classified into four different categories in Bangladesh: 1) large and medium industries; 2) small industries; 3) cottage industries; and 4) the informal sector. The large and medium-sized industries comprise manufacturing units and the small and cottage industries are defined by size of capital employed. Finally, the informal sector of Bangladesh is defined as businesses employing fewer than 10 employees. Furthermore, Chowdhury (2005) states 60 per cent of all employments in Dhaka are from the informal sector.

Second, there are some fundamental differences in characteristics of entrepreneurs operating in formal and informal industry, such as:

a) activities of the entrepreneurs from the informal industry are not reported in official statistics (Williams and Liu, 2019; Kiggundu and Uruthurapathy, 2018);

b) typically, informal entrepreneurs do not pay any official taxes (Williams, 2015; Rothenberg et al., 2016); and

c) as business registration augments legitimacy and requires compliance with law, many new entrepreneurs delay the registration process to defer the payment of registration and other ancillary or associated costs (Sarreal, 2019).

Third, Sarreal (2019) and Faruque et al. (2010) suggest entrepreneurs enter the informal sector due to its low requirements for education, skills, technology, capital and ease to entry. In many cases entrepreneurs in an informal industry get involved in such businesses while they are waiting to secure employment in the formal sector.

Comparing the data of this research against the established literature, this research confirms from the surveyed 250 street food entrepreneurs an enormous cumulative 98.4 per cent of respondents confirming they employ fewer than 10 employees, where 58.8 per cent of respondents have no employees. Moreover, only 16.8 per cent of respondents of the total 250 surveyed confirm they have either a licence or registration for their business (chapter six, Table 6.2). However, Chowdhury (2005) raises concerns with these trade licences, as they are usually issued to petty traders just so that they can trade their items; having a trade licence to operate does not mean the business is paying tax or registered in government statistics and does not confirm their legitimacy. Furthermore, out of the 250 surveyed entrepreneurs, 79.6 per cent are operating in the industry for less than 10 years (which includes 54.4 per cent operating for less than 5 years in the industry: chapter six, Table 6.1).

Finally, this research finds that 33.2 per cent of the respondents are not sure about the future of their business, whereas another 15.2 per cent intend to save money and invest in better business subsequently and a further 13.2 per cent confirm making the most profit out of their investment as the main intention of their involvement in the street food business

(chapter six, Table 6.4). Respondents even informed migrating to foreign countries or involving in farming is their ultimate intention.

In conclusion, findings of this research show that entrepreneurs operating in the street food industry of Bangladesh represent the informal industry. The next section draws the conclusions from objective one of this research. In objective one, this research investigates productive entrepreneurship through ethical and innovative practices in the industry selling street food to children in Dhaka, Bangladesh.

### 8.1.1 Productive entrepreneurship through ethical and innovative practices among entrepreneurs selling street food to the children in Bangladesh

Objective one of this research is set to explore productive entrepreneurship through ethical and innovative practices in the industry selling street food to children in Bangladesh. Alongside exploring the core concepts of ethical and innovative practices among the entrepreneurs, this research also set a research question (RQ1) associated with this objective to investigate the cultural-cognitive factors influencing entrepreneurial behaviour of the street food retailers. The following section aims to draw the conclusions relating to objective one and the associated research question.

Based on the findings and discussions on data accumulated, this research finds conclusive evidence that entrepreneurs from the informal industry selling street food to children are displaying risk-taking behaviour such as: a) involvement in developing new markets with unique products; and b) a significant number of entrepreneurs are start-up businesses, with 79.6 per cent of respondents having operated in the industry for less than 10 years (chapter six, Table 6.1). Relating to uniqueness, the respondents are: 1) keeping the price low without compromising quality; 2) not using harmful chemicals; and 3) using own recipes (chapter six, Table 6.7). Furthermore, credibility of their claims of uniqueness is confirmed through the chi-square test (Appendix 4, Table 7.51). The results reveal a positive relationship between the parameters. The literature suggests productive entrepreneurial

behaviour can be achieved or established by prioritising actions such as proactive behaviour, risk-taking, the development of new products and markets, start-up of new organisations, and growth in existing ones and others (Mitra, 2020; Sauka, 2008). Although results advise productive entrepreneurial behaviour, none of these actions ensure entrepreneurs are innovative. The productive entrepreneurship literature debates innovation as a form of 'productive entrepreneurship' as the process discovers new attributes and opportunities (Foss and Foss, 2002, as cited in Sauka, 2008).

As a result, this research finds entrepreneurs carefully selected local raw materials by themselves as the main innovative approach (chapter six, Table 6.9), which supports the suggestions of the qualitative phase discussing innovation in the industry. Further evidence of innovation is found through chi-square tests (Table 7.54, Appendix 4) executed for age and innovative practices, which suggests that entrepreneurs in the Bangladesh street food industry have become more innovative as they mature. However, all these results are contradicted with the age of entrepreneurs as found by this research, which suggests that more than 50 per cent of entrepreneurs have less than 5 years and almost 80 per cent have less than 10 years in the industry. This data raises a major concern relating to productive entrepreneurship in the industry, because although entrepreneurs are showing signs of productive behaviour which are associated with maturity (age) of the business, the majority of them are not operating in the industry for long enough to be considered 'mature businesses'. Alongside this concern of age of business, this research finds a cumulative 98.4 per cent of respondents employ fewer than 10 employees. Lopez (2006) suggests that large organisations or entrepreneurs are more motivated to engage in innovative activities. By contrast, in the industry selling street food to children in Bangladesh, firm sizes could be a limitation.

As age and size of business can play a fundamental role in an entrepreneur's ethical and innovative approaches, this research simultaneously conducts additional tests relating to these two conditions and could not find any association between 'online business approach' and 'age of the business' but finds an association with 'size of business'. The qualitative phase of this research indicates that an online business approach as innovative entrepreneurship in the sector and quantitative phase finds only 4 per cent of street food entrepreneurs responded in favour of online business approaches. This is supported by a chi-square test which finds a strong statistical association between 'size of business' and 'online business approach', with a p-value of .001 (Appendix 4, Table 7.55). Hence, it can be concluded that entrepreneurs selling street food to children are either behind or struggling with process innovation. These findings support Earle's (1997) study, which recommends combining technological innovation (e.g. an online business approach) with social and cultural innovation throughout the food system.

In terms of the research question associated with objective one, finding the cultural-cognitive factors behind entrepreneurial behaviour of the entrepreneurs, this research finds the entrepreneurs claiming that they are carefully selecting local ingredients to supply food at comparative low prices without compromising quality (chapter six, Tables 6.3 and 6.4). In achieving their intentions, they are also investing significant energy into their business (chapter six, Table 6.5). Unfortunately, concerns with the quality of the locally sourced raw materials used in the street food industry are already highlighted in publications (Islam et al., 2017; Khairuzzaman et al., 2014; Al Mamun et al., 2013; Ahmed, 2012; Chowdhury, 2012) and the concern is associated with the education and awareness of the food producers. As a result, it can be claimed that even with positive intentions to deliver quality street food to children, entrepreneurs from the informal street food industry are failing to deliver productive entrepreneurial behaviour through ethical and innovative practices.

Finally, in summarising the conclusion for objective one, it can be said that some evidence of productive entrepreneurship is found in the industry selling street food to children in Dhaka, Bangladesh. But the evidence is not significant enough to claim that entrepreneurs from the industry are productive in general. Rather this research concludes that entrepreneurs are failing to show substantial evidence indicating productive entrepreneurial behaviour even with productive intentions. This leaves this research searching for the answers for the barriers which are restricting entrepreneurs from becoming productive. The next section draws conclusions in that respect.

### 8.1.2 Factors acting as barriers for productive entrepreneurship practices in the developing economy context of Bangladesh

Results and discussions on objective one have concluded that even on having productive entrepreneurial intentions, the majority of the Bangladesh street food retailers cannot be considered productive. Therefore, objective two of this research aims to draw conclusions on the main factors acting as barriers for entrepreneurs to be productive. Objective two uses research question one ('cultural-cognitive factors behind entrepreneurial behaviour') to aid addressing the objective.

In describing the results, this research finds responses on three factors identified by the entrepreneurs as their barriers to be productive. First, 25.2 per cent of respondents claim access to funds as the main barrier, followed by lack of awareness (24.8 per cent), and lack of knowledge on safe food (20.8 per cent) as subsequent barriers for them to act productively (chapter six, Table 6.14). Further evidence is captured in data analysis, when a chi-square test reveals an association between 'food adulteration practices' and 'awareness of entrepreneurs' with a p-value of .033 (Table 7.8). Second, the concern of unfair advantage favouring unproductive entrepreneurs is also found, where respondents identified entrepreneurs involved in food adulteration are making more profit compared to those who are operating ethically. Some 80.8 per cent of respondents support this claim

(Appendix 3, Table 6.28). These results suggest that entrepreneurs are aware of the financial gains of being unproductive, which may act as a barrier for the entrepreneur to become productive and to remain financially competitive in the industry.

Last, the final barrier for productive entrepreneurship is found to be the ineffective regulatory structure (i.e. regulative pillar) on the informal Bangladesh street food industry. Results show that food adulteration practices in the industry are associated with licensing mechanisms (Tables 6.19 and 6.20, chapter six). An even stronger association is found with licensing mechanisms and standard testing (Table 7.62, Appendix 4) and effectiveness of regulatory structure (Table 7.63, Appendix 4). This poor regulatory framework is also found to be encouraging corruption among food inspectors who are supposed to be moderating the industry and ensuring food safety. Table 6.56 (Appendix 3) shows that 64.4 per cent of entrepreneurs state that they believe a number of food inspectors to be corrupt. This could well be another potential barrier for productive entrepreneurship along with the other barriers mentioned.

The literature relating to barriers for productive entrepreneurship in Bangladesh identifies 25 per cent of street food entrepreneurs cannot write their name, do not have formal education and are illiterate (Khairuzzaman et al., 2014), which may be the potential cause of their lack of awareness and knowledge. Furthermore, Hossain et al. (2008) and Hossain (2009) argue that financial crisis (research in 2009) and comparative advantage (research in 2008) are the main drivers for food sellers or producers to become involved in food adulteration in the country. Hence, it gives the impression that financial reasons can be one of the major drives for food sellers/producers to adulterate food items. Finally, on corruption influencing entrepreneurial behaviour, Baumol (1990) and Sauka's (2008) work suggests unproductive and destructive entrepreneurs will practise unproductive activities such as rent-seeking, corruption and organised crime. These unproductive entrepreneurs

constitute a major threat to productive entrepreneurship. Furthermore, taking the state of the industry selling street food in Bangladesh into consideration, Hussain and Leishman (2013) suggest an improved quality control system for the entire food chain system in the country.

As objective two raises major concerns regarding the regulatory structure (i.e. components regulative institution) and their ineffectiveness in ensuring productive entrepreneurship, objective three aims to draw conclusions on the role of formal and informal institutions on the industry selling street food to children in Bangladesh.

### 8.1.3 Role of institutions in promoting or impeding innovative and ethical practices among the entrepreneurs selling street food to children in Bangladesh

This section aims to draw conclusions on the third objective of the study, where the research intends to critically review the role of institutions in promoting or impeding innovative and ethical practices in the industry selling street food to children in Bangladesh. Furthermore, the research reviews both formal and informal institutions' impact on the industry. Formal or regulative institutions are moderated by formal bodies such as the regulatory framework overseeing the industry and informal institutions comprising existing norms and values (i.e. cultural-cognitive) that are dominant in the industry.

Commencing with components of regulative institutions, previous discussions identify a number of key areas such as licensing mechanism and knowledge and awareness creation as directly associated with regulatory frameworks, which require improvement to mark a positive impact on the industry. Notably, the BSTI (Bangladesh Standard Testing Institute) and CAB (Consumer Association of Bangladesh) are mentioned frequently. However, in reviewing the role of the components of the regulative institutions this research concludes that both BSTI and CAB need to play an essential role in improving awareness among the entrepreneurs with 85.2 per cent (BSTI) and 73.6 per cent (CAB) responses given by entrepreneurs in favour of the statements (chapter six, Tables 6.22, 6.23 and 6.24). In

investigating further this research finds BSTI would be able to improve innovative practices but not so much on the ethical front (Table 7.66, Appendix 4).

CAB can equally play an essential role in improving awareness relating to ethical practices and awareness of food adulteration in the informal street food sector (Table 7.67, Appendix 4 and Table 6.24, chapter six).

Alongside the impact from regulative institutions imposed through frameworks and authorities, this research finds that the rules and regulations play a pivotal role in ensuring ethical and innovative practices. First, test results suggest that an online business approach should be brought under the licensing mechanism (Table 7.68, Appendix 4), where an online business approach is considered an innovative business model for the street food selling industry. Alongside ensuring the licensing mechanism, this research concludes that modernisation of regulations is needed with special attention for the current penalty structure. Test results suggest modernisation of regulations and penalty will have a positive impact on food adulteration practices (Table 6.25, chapter six). Finally, the authorities are required to play an important role in providing necessary information on food adulteration to street food selling entrepreneurs (Table 6.27, chapter six), which potentially can raise awareness and control adulteration instances.

This research finds conclusive evidence suggesting equal importance of informal institutions on the industry. Analysis finds a statistically significant relationship between 'entrepreneurs to welcome regulations' and 'adulteration practices', which indicates that food adulteration instances can only be controlled when entrepreneurs adulterating food will accommodate rules and regulations imposed by the regulative institutions. Besides, the norm of accommodating regulations (cultural-cognitive institution) will also play an equally important role in promoting innovative approaches (Table 7.47 in Appendix 4), showing a statistically significant relationship.

In support of these conclusions, this research emphasises the importance of the licensing mechanism, where Rujoiu (2019) states a lack of licensing mechanism only encourages abuse of systems, fraud and unethical and criminal practices. Research carried out on the street food industry of Bangladesh reports an absence of a regulatory framework and licensing mechanism and accentuates what important role the regulatory framework can have on providing education and training to entrepreneurs (Rahman and Rahman, 2012; Faruque et al., 2010).

The discussion flow clearly identifies some areas of concern or gaps in the industry, which require immediate attention to address the issue of food adulteration practices in the informal industry selling street food to children. The next section of the chapter discusses the conclusions on the framework to encourage ethical and innovative practices in the industry, which may potentially reduce the gaps.

#### 8.1.4 Framework that encourages ethical and innovative practices among the entrepreneurs selling street food to the children in Bangladesh

The fourth and final objective of this research is to design or identify a framework to encourage ethical and innovative practices in the industry selling street food to children in Bangladesh. Thus far, the discussions identify gaps in the industry which should be addressed to establish productive behaviours among entrepreneurs. Taking these gaps into consideration, the research proposes a number of adjustments to the conceptual framework (Section 7.7.5, chapter seven). Discussions in the following sections will provide the concluding statements on the gaps and how they are identified.

The first gap identified by this research is in ineffective or absent components of the regulative institutions (Scott, 2014) that oversee the informal street food industry. Moreover, this research finds that it is essential to have a licensing mechanism (component of regulative institutions) for all entrepreneurs including online businesses (Table 7.68, Appendix 4).

The second identified gap in the industry which requires addressing reveals concerns with the components of normative institutional pillars (Scott, 2014), in the form of level of education, awareness and knowledge of adulteration, and safe food among street food entrepreneurs. Table 6.27 in chapter six shows a significant statistical relationship between 'no access to information' and 'adulteration practices'. The results are conclusive enough to suggest an improved and effective implementation of the normative institutional pillars (i.e. level of education, awareness and knowledge) will have a significantly positive impact on mitigating food adulteration practices.

The third gap found in the industry is components of the cultural-cognitive institutional pillars (Scott, 2014), in the form of awareness of good practice (GP) and its adoption. This research finds it essential for entrepreneurs in the street food industry to be aware of GP (Table 7.69, Appendix 4). However, this research also finds entrepreneurs who are aware of good practice are not financially capable to follow or adopt them (Table 6.29, chapter six).

Alongside entrepreneurs' awareness of good practices, this research concludes it is equally essential for customers (parents and children) to be aware of the good practices (also a components of the cultural-cognitive institutional pillar) in promoting productive practices in the Bangladesh street food industry. Tables 7.72 and 7.73 (Appendix 4) show a statistically significant relationship between 'customer's awareness of GP' and 'ethical and innovative practices'.

Finally, to conclude the section on the framework to encourage ethical and innovative practices, it is important to emphasise the necessity of availability and accessibility of information in ensuring productive entrepreneurship and control adulteration practices in the overall food industry (Noor, 2016; Husain et al., 2015; Faruque et al., 2010; Muzaffar et al., 2009). Moreover, it is important to make the process of formalising businesses and following good practices financially viable and less complex for informal entrepreneurs. If

the formalising process is complex and not financially viable, informal entrepreneurs are unlikely to participate in it (Mathias et al., 2015).

Based on the findings and conclusions of the thesis, this research makes recommendations as discussed in the next section.

## 8.2 Recommendations

This research takes pride in producing and claiming valuable findings on the phenomenon of food adulteration practices in the informal industry selling street food to children in Dhaka, Bangladesh. Considering the findings, discussions and conclusions, this research makes the following recommendations. The implementation of these recommendations, guided by the concept of institutional pillars (Scott, 2014), will have a significant impact on improving food adulteration instances among the entrepreneurs of the informal Bangladesh street food industry and promote productive entrepreneurship through ethical and innovative approaches.

- The regulatory body (authority) overseeing the formal food industry should widen their scope to include the informal industry.
- The regulatory body should initiate a simple transition process for entrepreneurs from informal industry to formal industry.
- The regulatory body should develop and implement a set of entry criteria for new entrants to satisfy prior to entering the street food industry of Bangladesh.
- The regulatory body should develop a formal structure to educate, provide knowledge and increase awareness on food safety among the street food retailers.
- The regulatory body and NGOs should develop awareness programmes addressing safe food and food adulteration issues more directly towards street food entrepreneurs and customers (parents and children).

- The regulatory body should carefully consider revisiting and modernising the current regulations and penalty structure imposed on the food industry.
- A formal mechanism to recognise and promote good practices should be developed. Efforts should be given to make the good practices suitable for adoption by small-scale entrepreneurs. This mechanism can be developed and delivered by either a regulatory body or an independent institution such as an NGO.
- The regulatory body should develop a clear communication channel for entrepreneurs to access necessary information relating to food safety and retailing.
- The conceptual framework should be adjusted with the recommended gaps to improve the food adulteration crisis evident in the street food industry of Bangladesh.
- All street food retailers should use only those raw materials which are recognised by BSTI (Bangladesh Standard Testing Institution).
- All street food retailers should access necessary training to prepare and retail safe street food.

## 8.3 Contributions

### 8.3.1 Contributions to academic literature

There are several ways the research contributes to the discipline of entrepreneurship, the informal economy in the context of developing economy and institutional theories.

First, this research contributes significantly to the literature on the industry selling street food to children from the perspective of a developing economy (emerging market). In the introductory chapter (chapter one), the paucity of academic literature available in this area is noted. Hence, this thesis and forthcoming academic publications will be a meaningful contribution for future research within the above highlighted subject areas.

Second, this research contributes significantly towards the literature of informal economy from a developing economy perspective.

Third, this research contributes significantly towards the literature of institutional theory in an informal sector within a developing economy context.

Finally, this research contributes to the entrepreneurship literature addressing the debate of productive versus unproductive and destructive entrepreneurship.

### 8.3.2 Contribution to methodology

While previous studies on the food industry in Bangladesh mostly adopt qualitative approaches, this research uses an effective mixed method research approach in investigating the sensitive phenomena. As a result, the success of this research increases confidence for future researchers in adopting a mixed method research approach in similar studies.

Moreover, this research provides guidelines for new researchers to execute a sequential exploratory research approach successfully and effectively. Sequential exploratory approach is a category of mixed method approach.

### 8.3.3 Contributions to framework and society

Alongside contributions to the body of knowledge, this research also contributes to developing a conceptual framework for the informal industry selling street food in Bangladesh.

First, this research identifies number of areas with potential gaps and the gaps are unique for the industry selling street food to children and are closely associated with Scott's (2014) institutional pillars. Once those gaps are addressed, the conceptual framework is expected to encourage ethical and innovative practices, which will reduce food adulteration practices among retailers selling street food to children in the country.

Second, addressing the gaps identified within the regulative institutions will ensure supervision of the Bangladesh street food selling industry. Effective supervision of the industry is gravely absent in its current operation.

Third, through addressing the gaps in recognising good practices (cultural-cognitive institutions), it is expected to deliver the process to recognise adoptable good practices for small-scale entrepreneurs operating in the Bangladesh street food industry.

Fourth, addressing the gaps of awareness (normative institutions) will develop a social communication vehicle which will be suitable and useful in improving education, knowledge, morality and awareness among the general public including entrepreneurs.

Finally, once the gaps of the conceptual framework are addressed or adjusted the framework can become transferrable or adoptable to any other sector.

#### **8.4 Limitations of the study**

This research examines the food adulteration concerns in the context of Bangladesh. Chapter three discusses and establishes Dhaka as fertile ground for the investigation to take place. Therefore, considering the socio-demographic information of the street food retailers operating within Dhaka, this research captures data only from Dhaka, Bangladesh. That being said, cross-city and cross-country comparisons would have been warranted to identify differences between Dhaka, Bangladesh and other contexts.

This study investigates the food adulteration phenomenon among the street food retailers operating for less than 10 years mostly. Examining the concern with street food retailers operating for more than 10 years and representing the formal industry can provide a comparative picture. A qualitative in-depth interview with the formal retailers can be adopted.

Food adulteration concern is present in multiple sectors of food trading in Bangladesh (Hossain, 2011), but this research only addresses retailers who are selling street food to children and investigates the food adulteration concern from the retailing side of the food chain operation.

## 8.5 Directions for future research

This research generates key information, asks questions and attempts to provide solutions to prevailing concerns within the Bangladesh street food industry relating to food adulteration. However, in addition, the research identifies some gaps that could not be addressed here and thus makes the following recommendations for future research.

First, similar research can be conducted in other major cities of Bangladesh, where street food entrepreneurship is popular.

Second, comparative research can be carried out in other developing countries where street food entrepreneurship is popular and encountering similar concerns.

Third, qualitative research could be conducted on street food entrepreneurs to understand their motives behind unproductive behaviour.

Fourth, cross-sector comparison research on food adulteration between street food entrepreneurship and other food sectors could be carried out to identify similarities and dissimilarities.

Last, research could be conducted to address food adulteration concerns in different parts of the food chain, namely suppliers of raw materials, production, distribution and transportation.

## 8.6 Concluding remarks

In the final segment, this study makes the concluding statement for the thesis and takes time to answer the veiled question asked by the research title: What is the entrepreneurial behaviour of the street food retailers in Dhaka, Bangladesh? Taking all facts and rationale into deliberation, this research confirms that street food entrepreneurship in Bangladesh is unproductive, though entrepreneurs are not solely responsible for showing unproductive behaviour, and this research does not find evidence suggesting destructive entrepreneurial behaviour. This research identifies ineffectiveness of regulatory frameworks, concerns with education, knowledge and awareness of safe food among street food retailers and equally among customers, and finds absence of a structured mechanism to encourage good practices in the industry. Addressing these concerned areas can potentially guide the industry towards the productive entrepreneurship paradigm.

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## **Appendix 1a: Semi-Structured Interview (remote)**

### **Introduction to Semi-Structured Interview (remote)**

Dear Participant,

I invite you to participate in a research study entitled: “Ethical and Productive Entrepreneurship in the Child Food Industry of Bangladesh: Towards an Integrated Framework for Entrepreneurial Innovation and Social Impact”.

I am currently enrolled in the PhD programme at University of Suffolk, UK and in the process of collecting data for my research which will enable me in writing my PhD Thesis. The objectives/purposes of the research are the followings:

1. To explore productive entrepreneurship through ethical and innovative practices in child food industry of Bangladesh.
2. To explore factors which acts as barriers for unproductive and destructive entrepreneurship practices in developing economy considering Bangladesh context.
3. To critically review role of institutions in promoting or impeding innovative and ethical practices in child food industry of Bangladesh.
4. To design a framework that encourages ethical and innovative practices in the child food industry of Bangladesh.

This proposed semi-structured interview has been designed to collect information on the objectives mentioned above.

Your participation in this research project is completely voluntary. You may decline altogether, or decide not to respond on any questions you do not wish to answer. Your responses will remain confidential and anonymous. Data from this research will be codified and secure in a password protected location and will be reported either as a collective combined total or summary report. No one other than the researchers will know your individual answers to this interview and no individual’s name will be written or made available in public domain.

Furthermore, several steps will be taken to protect your anonymity and identity. While the interviews will be voice recorded, the records will not contain your name or any other form of identification, rather just mention of serial number of the interview and your responses against the questions asked. The typed interviews (summary report) will NOT contain any mention of your name, and any identifying information from the interview will be removed. The summary report will also be kept securely by the researcher and only himself will have access to the interviews. All information will be destroyed after 5 years’ time.

If you agree to participate in this project, please answer the questions in this interview as best you can. The interview should take approximately 20 to 25 minutes to complete.

If you have any questions about this project, feel free to contact me Rahaman Hasan (PhD student/researcher) at [r.hasan@uos.ac.uk](mailto:r.hasan@uos.ac.uk) or my supervisors; Dr. Daba Chowdhury at [d.chowdhury@uos.ac.uk](mailto:d.chowdhury@uos.ac.uk) or Professor Jay Mitra at [jmitra@essex.ac.uk](mailto:jmitra@essex.ac.uk).

Thank you for your assistance in this important endeavour.

Sincerely yours,

Rahaman Hasan  
(PhD Researcher)

## Appendix 1b: Interview survey questionnaire

### Introduction to the questionnaire

Dear Participant,

Thank you for providing consent to participate in the study of “Entrepreneurial Behaviour in Informal Economy: A Case Study on Street Food Entrepreneurship in Dhaka, Bangladesh.”

- **Purpose of this questionnaire**
  - I am undertaking my doctoral studies at the University of Suffolk, UK and this questionnaire survey is part of the Doctoral study (PhD). The purposes mentioned in the “Participant Information Sheet” attached with this document. This introduction also acts as a guidance document on the use of the questionnaire.
- **Who are my respondents**
  - This survey is designed to collect information from entrepreneurs operating in the child food sector of Bangladesh, who are either producing then selling or just selling food items. Following sections provides details of the questionnaire for clarity and understanding.
- **Scope of the questionnaire**
  - The questionnaire has five sections, closely aligned against the objectives of my research. Questions in each section are regarding the child food industry of Bangladesh. Introduction to each section is provide at the beginning of each section.
- **Guidelines and structure of the questions for/in the questionnaire**
  - You should not provide your name or name of your business in this survey.
  - Apart from “Any comments or suggestions” all questions are **closed-ended questions**.
    - You are requested to **select only one answer** (option) for each question.
  - Questions in the questionnaire are designed in simple Yes/No and multiple-choice structure.
- **What is expected from you**
  - You are invited to **participate and respond in all sections** of the questionnaire.
  - If any question remains unanswered in any section, the full-questionnaire will be rejected. Hence, researcher would request you to attend all questions in each section.
  - Only “Any comments or suggestions” at the end of the questionnaire may remain unanswered
- **Your anonymity**
  - Several steps will be taken to protect your anonymity and identity. The surveys will not be voice recorded, the records will not contain your name or any other form of identification. It will only show the serial number of the survey and your responses against the questions asked. The compiled data (summary report) will NOT contain any reference to your name, or any other information identifying you. The summary report will also be kept securely in digital form by the researcher and only himself will have access to the surveys. No one other than the researcher will know your individual answers to this survey and anonymised answers will be shared with my PhD supervisors. Furthermore, no individual’s name will be written or made available in public domain. All information will be destroyed after 5 years’ time.
- **Time required to complete this questionnaire**
  - Please answer all questions in this questionnaire as best you can. The questionnaire survey should take approximately 15 to 20 minutes to complete.

Thank you for your participation in this study.

Sincerely yours,

Rahaman Hasan  
(PhD Researcher)

**For researcher use only**    SI no:  
 The questionnaire is complete?    Y/N  
 The questionnaire is accepted? Y/N

## Phase two (Quantitative) Questionnaire survey

### Survey questions

#### Section 1: General Information

**Notes for participant:** In this section you are asked about information regarding your business's age, type, legal status and feature of the food product your business deals with, along-with general information on the sector. You should try to answer the questions at your best abilities.

SI	Question	Responses
01	For the following statements please tick <b>v</b> the one that matches <b>age</b> of your food business most closely	a. My business is less than 5 years old b. My business is more than 5, but less than 10 years old c. My business is more than 10 years old
02	For the following statements please tick <b>v</b> the one that matches your food <b>retailing</b> most closely	a. I produce the food myself then retail b. I buy the food from a producer then retail
03	For the following statements please tick <b>v</b> the one that matches <b>size</b> of your business most closely	a. This is my only retailing site b. I have between 2 to 5 retailing sites c. I have between 6 to 9 retailing sites d. I have 10 or more retailing sites
04	For the following statements please tick <b>v</b> the one that matches <b>number of employees</b> at your food business most closely	a. I do not have anyone else working for me b. I have 1 to 5 employees working for me c. I have 6 to 9 employees working for me d. I have 10 or more employees working for me
05	Are you aware of the ingredients used in production of the food you are retailing?	a. Yes b. No c. Not very important to know d. I don't know I need to know
06	Do you have a licence or registration to operate in the food industry?	a. Yes b. No c. I don't need a licence d. I don't know I need a licence
07	What is the key characteristic of the food you are producing and/or retailing?	a. Affordable price b. High quality food c. I do not re-use oil d. Pollution free food e. I Keep my cost low f. Others, please specify
08	For the following statements please tick <b>v</b> the one that matches <b>type</b> of your food business most closely	a. I retail my food on the street – floating b. I retail my food on the street – static c. I retail my food inside a restaurant d. I retail my food online (FB, Website, App for order) e. I retail my food both online and offline
09	For the following statements please tick <b>v</b> the one that matches your <b>future planning</b> for your food business most closely	a. Grow my business further, by maintaining food safety b. Serve safe food in affordable price c. Anyhow make most profit from my investment d. Save money and invest in better business e. It's difficult to find a job, hence in this business. So, I am not sure about future. f. Others, please specify.....
10	From the list please tick <b>v</b> the characteristic that you consider to be the best key feature for your food business	a. I identified the business opportunity and stayed focus on that opportunity b. I am innovative, and I convert my ideas into what I do c. I invest a lot of my energy to be successful with my business d. I learn from my mistakes, if I make one e. I encourage others to try into my ideas and enthusiasm f. I make the most out of the resources I have g. None of the above

## Section 2: Productive entrepreneurship through ethical and innovative practices

**Notes for participant:** In this section you are asked to respond questions on how ethical or innovative your food business is. You should try to answer the questions at your best abilities.

SI	Questions	Responses
11	Please tick <b>✓</b> the one of the following statements that represent <b>uniqueness</b> of your food business most closely	a. No one retail this item b. My own recipe c. My food is designed for children d. I keep price low but do not compromise quality e. Production cost is low f. No harmful chemicals used g. None of the above Select your response from this section, if you are <b>only a retailer</b> :
		Select your response from this section, if you are <b>producer-retailer</b> :
12	From the following statements please tick <b>✓</b> the one that matches <b>key attribute</b> of your ethical practices most closely	a. Does not have chemical b. Contain regular/ natural sugar c. I am not aware of any such practice d. Others, please specify..... e. Local ingredients are carefully selected by me f. Imported ingredients are carefully selected by me g. Does not have chemical h. Contain regular/ natural sugar i. I am not aware of any such practice j. Others, please specify..... Select your response from this section, if you are <b>only a retailer</b> :
		Select your response from this section, if you are <b>producer-retailer</b> :
13	From the following statements please tick <b>✓</b> the one that matches <b>key attribute</b> of your business's innovative approach most closely	a. Producer made it with good quality imported ingredients b. Producer made it with good quality local ingredients c. I am not aware of any such practice d. Others, please specify..... e. Local ingredients are carefully selected by me f. Imported ingredients are carefully selected by me g. I am not aware of any such practice h. Others, please specify.....
14	From the following please tick <b>✓</b> the statement on <b>online business approach</b> that represents your food business closely	a. I can retail my food via social network (Facebook) b. I can retail my food via a website c. Online retailing will reduce my operation costs d. I cannot afford costs of online retailing e. I don't have technical knowhow for online retailing f. I'm already retailing my food online
15	To your knowledge what is the most commonly used technique that risks food safety standard in child food in Bangladesh?	a. Use of sweetener b. Use of textile colours c. Use of formalin d. Use of preservatives e. Use of inferior raw materials f. Ineffective use of expiry date g. Use of false/fake branding

### Section 3: Factors acting as barriers for productive entrepreneurship

**Notes for participant:** In this section you are asked about the factors that you believe will reduce the chances of adulteration in the child food industry of Bangladesh. You should try to answer the questions at your best abilities.

SI	Question	Response
16	From the list please tick <input type="checkbox"/> the factor that you consider as the <b>main barrier</b> for productive entrepreneurship in the child food sector of Bangladesh	a. Access to fund to support business b. Lack of knowledge on safe food c. Lack of awareness on safe food d. Government rules and regulations are too difficult to abide by e. Difficult to complete against unethical business f. Producing safe food is expensive

For statements 17 to 21 may I request you to rank each statement considering their importance to you;  
 Notes: Rank 1 = Most important; Rank 5 = Least important. You cannot issue same rank for two statement

SI	Statement	Rank
17	Every entrepreneur should have a licence from govt to operate in food industry	
18	The regulatory structure should be effective in identifying adulteration practices and issuing exemplary penalties (monetary or statutory)	
19	The information from regulatory body should be clear and concise on what entrepreneurs in the food industry can and cannot do	
20	Every entrepreneur should undertake training on how to maintain food safety and avoid adulteration before starting food business	
21	My food should be standard tested by Bangladesh Standards and Testing Institution (BSTI) regularly	

For statements 22 to 29 may I request you to tick  your rating for the statement given;  
 Note: 1 = Strongly disagree; 3 = Neither agree nor disagree; 5 = strongly agree

SI	Statement	Rating scale				
22	Each entrepreneur in the child food industry should be aware of the rules and regulations on food adulteration	1	2	3	4	5
23	It is difficult to produce good quality food for affordable price	1	2	3	4	5
24	Those who are involved in adulteration makes more profit	1	2	3	4	5
25	Unethical practices reduce production cost	1	2	3	4	5
26	Number of food inspectors are involved in corruption	1	2	3	4	5
27	I am aware of the ingredients that should not be used in food	1	2	3	4	5
28	There can be industrial colour rather than food colour used in the food that I am selling	1	2	3	4	5
29	I have the knowledge of how much preservatives I can use	1	2	3	4	5

**Section 4: Role of institutions**

**Notes for participant:** In this section you are asked questions on how formal and informal institutions in the child food industry impacts your food business. You should try to answer the questions at your best abilities.

For the next section may I request you to select your rating for the statements given;

Note: 1 = Strongly disagree; 3 = Neither agree nor disagree; 5 = strongly agree

SI	Statement	Rating scale				
30	Monitoring rules and regulations in child food industry are needed to be welcomed by all entrepreneurs	1	2	3	4	5
31	Govt regulations (from BSTI) need to improve awareness among child food entrepreneurs	1	2	3	4	5
32	Consumer Association of Bangladesh (CAB) need to improve awareness among child food entrepreneurs	1	2	3	4	5
33	Current regulations and penalty structure of BSTI needs modernising	1	2	3	4	5
34	Effective BSTI regulations are needed to encourage fair competition in the industry	1	2	3	4	5
35	It is necessary for all entrepreneurs in this industry to have licence (from government) to operate	1	2	3	4	5
36	I do not have access to information needed to operate with safe food	1	2	3	4	5
37	Goodwill of my business is important	1	2	3	4	5

**Section 5: Framework to encourage ethics and innovation**

**Notes for participant:** In this section you are asked about your awareness or knowledge on good practice in the child food industry of Bangladesh. By Good Practice I meant those businesses who are experiencing growth in business through operating ethically and/or innovating new safe food products and/or having positive contribution towards the society/community. You should try to answer the questions at your best abilities.

For the next section may I request you to select your rating for the statements given;

Note: 1 = Strongly disagree; 3 = Neither agree nor disagree; 5 = strongly agree

SI	Statement	Rating Scale				
38	I am aware of good practices from the child food industry of Bangladesh, that I can follow	1	2	3	4	5
39	I am not financially able to follow good practice, because following them will be expensive for my operation	1	2	3	4	5
40	Entrepreneurs need to be aware of the good practices in the child food industry of Bangladesh	1	2	3	4	5
41	Customers ( <b>parents</b> ) need to be aware of the good practices in the child food industry of Bangladesh	1	2	3	4	5
42	Customers ( <b>children</b> ) need to be aware of the good practices in the child food industry of Bangladesh	1	2	3	4	5
43	In a scale of 1 (not important at all) to 5 (very important) please rate importance of Good Practice for your child food business					

Any comments or suggestions (if any)

**Closing Notes:**

***If you wish to receive summary of the results you can contact the researcher at the provided contact details in section 10 of "Participant Information Sheet" attached with this questionnaire.***

***Thank you for your co-operation***

## Appendix 2:

### Qualitative key findings (phase one): Theme 1 (entrepreneurship)

Key finding 1: There is no mechanism to recognise and monitor the businesses and small and medium-scale entrepreneurs in the industry selling food to children in Bangladesh.

Key finding 2: The informal industry is larger in comparison with the formal industry.

Key finding 3: Street food is offered at an affordable price.

Key finding 4: Introduction of regulatory bodies has made some impact mostly on formal (registered/licensed) businesses.

Key finding 5: Potential productive entrepreneurs are affected by unproductive or destructive entrepreneurs.

Key finding 6: Some sections of the food industry have evidenced significant improvements and can be potential examples of innovative entrepreneurship.

Key finding 7: Over reuse of oil in the industry selling street food to children in Bangladesh.

Key finding 8: Use of sweetener instead of sugar.

Key finding 9: Raw materials are contributing to adulteration for those who are intending to operate ethically or productively.

Key finding 10: Use of textile colour instead of food colour.

Key finding 11: Alongside adulteration, pollution is a concern.

Key finding 12: Inconsistency of information for both entrepreneurs and consumers.

Key finding 13: Use of formalin to preserve food.

Key finding 14: Use of preservatives to preserve food.

Key finding 15: Food items are not rotated according to their expiry date.

Key finding 16: Food storage for entrepreneurs is a concern.

Key finding 17: Established businesspeople are also involved in child food adulteration to some extent.

Key finding 18: There is a lack of awareness of food pollutants among street food entrepreneurs.

Key finding 19: Awareness of food hygiene is very low among small and medium-scale entrepreneurs.

Key finding 20: Entrepreneurs hide information of ingredients used.

Key finding 21: Local products are sold as imported.

Key finding 22: Sweeteners, inferior quality oil and unhealthy fat are used in producing street food for children.

Key finding 23: There are no regulations or mechanism for new entrepreneurs when entering the industry.

Key finding 24: There is no systematic monitoring structure for small and medium-scale entrepreneurs.

Key finding 25: Food inspectors are involved in corruption.

Key finding 26: Weak regulatory structure is encouraging unethical practice.

Key finding 27: Producing street food within affordable prices and with expected standards of safe food is difficult for entrepreneurs.

Key finding 28: Below middle-class customers cannot afford safe food.

Key finding 29: Unethical entrepreneurs are exploiting the economic imbalance.

Key finding 30: The regulatory mechanism is not effective against illegal imports of food.

Key finding 31: Customers rely on imported items for safe food.

Key finding 32: Small-scale entrepreneurs are mostly operating in the industry selling street food to children in Bangladesh.

Key finding 33: The majority of children are consuming food produced by local entrepreneurs.

### Qualitative key findings (phase one): Theme 2 (entrepreneurial behaviour)

Key finding 34: Lack of awareness among entrepreneurs on addition of extraneous matters.

Key finding 35: Lack of knowledge among entrepreneurs on addition of extraneous matters.

Key finding 36: New techniques of addition of extraneous matters are available in the industry.

Key finding 37: Addition of extraneous matters is more common in rural areas.

Key finding 38: Lack of awareness among entrepreneurs on use of prohibited dyes and preservatives.

Key finding 39: Lack of knowledge among entrepreneurs on use of prohibited dyes and preservatives.

Key finding 40: Lack of awareness among customers on use of prohibited dyes and preservatives.

Key finding 41: Regulatory framework is not proactive in identifying techniques of chemical adulteration on food (including child food) items.

### Qualitative key findings (phase one): Theme 3 (ethics)

- Key finding 42: Government regulations are having some impact on improving awareness.
- Key finding 43: Entrepreneurs who have intentions for long-term business consider goodwill.
- Key finding 44: Exposure to information and knowledge is playing a key role in ethical operation.
- Key finding 45: Young entrepreneurs have better morals in the child food industry.
- Key finding 46: The main driver for unethical behaviour is profit-making.
- Key finding 47: The regulatory framework is not having the impact that was expected.
- Key finding 48: The regulatory framework does not have enough people to monitor and impose the regulations effectively on the food industry.
- Key finding 49: There is a possibility that unethical entrepreneurs do not have a long-term business plan.
- Key finding 50: Lack of awareness and insufficient education on adulteration among small-scale entrepreneurs is a major concern.
- Key finding 51: Entrepreneurs in the informal industry are not well informed on the regulatory framework and mechanism.
- Key finding 52: Lack of equipment and manpower is working as a barrier for the regulatory framework to have appropriate impact.
- Key finding 53: No licensing/registration mechanism is present to recognise and monitor small and medium-scale entrepreneurs.
- Key finding 54: It may be necessary to revisit some regulations and penalty structure.
- Key finding 55: CAB is having some (slow) impact on improving awareness.
- Key finding 56: BSTI has increased the number of authorised items in the food sector (nonetheless, small and medium-scale entrepreneurs are not part of this recognition).
- Key finding 57: Large-scale and ethical entrepreneurs are welcoming the regulatory framework.
- Key finding 58: Rules and regulations are creating a fair platform for competition.
- Key finding 59: Entrepreneurs with limited investment, mostly small and medium-scale and involved in adulteration, are reluctant to accept rules and regulations.
- Key finding 60: The purpose of rules and regulations is not clear to entrepreneurs.
- Key finding 61: Inferior quality ingredients are easily sourced from the market.
- Key finding 62: Unethical entrepreneurs reduce costs by not satisfying regulations.
- Key finding 63: Awareness improvement is necessary for both entrepreneurs and customers.

Key finding 64: Focus can be given on educating and improving awareness of children on food adulteration.

Key finding 65: Social norms, values and beliefs can be used in raising awareness.

#### Qualitative key findings (phase one): Theme 4 (innovation)

Key finding 66: Need to develop approved/authorised mechanism to recognise good practices.

Key finding 67: Examples of good practices can be adopted from any other industry or country.

Key finding 68: Online platforms can be an option for child food entrepreneurs.

Key finding 69: Use of locally sourced ingredients can be promoted.

Key finding 70: Mechanism is not available for small and medium-scale entrepreneurs to follow productive entrepreneurship behaviour within their financial capability.

Key finding 71: Mechanism is not there to educate entrepreneurs on productive entrepreneurship and to customers on the availability of child food items produced through the productive entrepreneurship process.

## Appendix 3: Tables and graphs

## Section 1: Statistics tables

		Age of business (Q1)	Producer-retailer Vs Retailer (Q2)	Size of business (Q3)	Number of employees (Q4)	Awareness of ingredients used (Q5)
N	Valid	250	250	250	250	250
	Missing	0	0	0	0	0
Mean						

		Licence or registration to operate (Q6)	Key characteristics (Q7)	Type of retailer (Q8)	Future planning (Q9)	Best key feature (Q10)
N	Valid	250	250	250	250	250
	Missing	0	0	0	0	0
Mean						

		Uniqueness of business (Q11)	Key attribute of ethical practice (Q11)	Key attribute of innovative approach (Q13)	Online business approach (Q14)	Common technique of adulteration (Q15)
N	Valid	250	250	250	250	250
	Missing	0	0	0	0	0
Mean						

		Main barrier for Productive Ent (Q16)	Licence to operate (Q17)	Regulatory structure should be effective (Q18)	Clear and concise information from regulatory body (Q19)	Undertaking training on food safety and adulteration (Q20)
N	Valid	250	250	250	250	250
	Missing	0	0	0	0	0
Mean			2.7720	2.5920	2.9960	3.5120

		Food should be standard tested regularly (Q21)	Awareness of rules and regulations on adulteration (Q22)	Difficult to produce good quality for affordable price (Q23)	Entrepreneurs adulterating makes more profit (Q24)	Unethical practice reduce production cost (Q25)
N	Valid	250	250	250	250	250
	Missing	0	0	0	0	0
Mean		3.1360	4.6440	3.5960	4.2560	4.2920

		Corrupt food inspectors (Q26)	Awareness of ingredients not be used (Q27)	Industrial colours rather than food colour (Q28)	Knowledge of amount of preservative I can use (Q29)	Rules and regulations needed to be welcomed (Q30)
N	Valid	250	250	250	250	250
	Missing	0	0	0	0	0
Mean		3.5200	4.1640	3.2440	3.8000	4.4640

**Table 6.7:  
Statistics of Question 31 to 35**

		BSTI regulations need to improve awareness (Q31)	CAB need to improve awareness (Q32)	Modernisation of regulations and penalty (Q33)	BSTI need to encourage fair competition (Q34)	Licence for entrepreneurs are necessary (Q35)
N	Valid	250	250	250	250	250
	Missing	0	0	0	0	0
Mean		4.3600	4.2120	4.1760	4.2560	4.2920

**Table 6.8:  
Statistics of Question 36 to 40**

		Do not have access to information (Q36)	Goodwill is important (Q37)	Aware of GP that I can follow (Q38)	Financially not able to follow GP (Q39)	Entrepreneurs need to be aware of GP (Q40)
N	Valid	250	250	250	250	250
	Missing	0	0	0	0	0
Mean		2.6120	4.6320	4.5240	3.0480	4.3520

**Table 6.9:  
Statistics of Question 41 to 43**

		Parents need to be aware of GP (Q41)	Children need to be aware of GP (Q42)	Importance of GP (Q43)
N	Valid	250	250	250
	Missing	0	0	0
Mean		4.6880	4.3800	4.7160

## Section 2: Cross-tabulations on general information of street food industry

**Crosstab 6.1:  
Age of business against Producer-retailer Vs Retailer**

		Producer-retailer Vs Retailer		Total
		Produce and retail	Retail only	
Age of business	Less than 5 years	122	14	136
	More than 5 but less than 10	46	17	63
	More than 10 years	45	6	51
Total		213	37	250

**Crosstab 6.2:  
Age of business against Size of business**

		Size of business			Total
		Only retail site	Between 2 to 5 retailing sites	Between 6 to 9 retailing sites	
Age of business	Less than 5 years	125	11	0	136
	More than 5 but less than 10	50	13	0	63
	More than 10 years	35	13	3	51
Total		210	37	3	250

**Crosstab 6.3:  
Age of business against Number of employees**

		Number of employees				Total
		No other employee	1 to 5 employees	6 to 9 employees	10 or more employees	
Age of business	Less than 5 years	93	38	5	0	136
	More than 5 but less than 10	32	29	2	0	63
	More than 10 years	22	22	3	4	51
Total		147	89	10	4	250

**Crosstab 6.4:  
Age of business against Awareness of ingredients used**

		Awareness of ingredients used			Total
		Yes	No	Not very important to know	
Age of business	Less than 5 years	129	5	2	136
	More than 5 but less than 10	55	6	2	63
	More than 10 years	47	3	1	51
Total		231	14	5	250

**Crosstab 6.5:  
Age of business against Licence or registration to operate**

		Licence or registration to operate				Total
		Yes	No	I don't need a licence	I don't know I need a licence	
Age of business	Less than 5 years	14	92	13	17	136
	More than 5 but less than 10	12	37	0	14	63
	More than 10 years	16	12	8	15	51
Total		42	141	21	46	250

**Crosstab 6.6:  
Age of business against Key characteristics**

		Key characteristics					Total
		Affordable price	High quality food	I do not re-use oil	Pollution free food	I keep my cost low	
Age of business	Less than 5 years	38	32	22	16	28	136
	More than 5 but less than 10	30	18	4	3	8	63
	More than 10 years	6	25	8	7	5	51
Total		74	75	34	26	41	250

**Crosstab 6.7:**  
**Age of business against Future planning**

		Future planning					Total
		Grow the Service safe	Anyhow Save	Not sure	Others	Total	
Age of	Less than 5 years	35	16	20	13	51	136
	More than 5 but less than 10	18	8	2	13	22	63
	More than 10 years	14	3	11	12	10	51
	Total	67	27	33	38	83	250

**Crosstab 6.8:**  
**Age of business against Best key feature**

		Best key feature			
		I identified	I am	I invest a lot of my energy	I learn from
Age of	Less than 5 years	26	8	64	11
	More than 5 but less than 10	6	5	24	8
	More than 10 years	10	1	14	4
	Total	42	14	102	23

**Crosstab 6.9:**  
**Age of business against Best key feature**

		Best key feature			Total
		I encourage others to buy	I make the most out of	None of the above	
Age of business	Less than 5 years	13	14	0	136
	More than 5 but less than 10	6	14	0	63
	More than 10 years	3	15	4	51
	Total	22	43	4	250

**Crosstab 6.10:**  
**Producer-retailer Vs Retailer against Size of business**

		Size of business			Total
		Only retail site	Between 2 to 5	Between 6	
Producer-retailer Vs Retailer	Produce and retail	184	27	2	213
	Retail only	26	10	1	37
Total		210	37	3	250

**Crosstab 6.11:**  
**Producer-retailer Vs Retailer against Awareness of ingredients used**

		Awareness of ingredients used			Total
		Yes	No	Not very important to know	
Producer-retailer Vs Retailer	Produce and retail	206	5	2	213
	Retail only	25	9	3	37
Total		231	14	5	250

**Crosstab 6.12:**  
**Producer-retailer Vs Retailer against Licence or registration to operate**

		Licence or registration to operate				Total
		Yes	No	I don't need a licence	I don't know I need a licence	
Producer-retailer Vs Retailer	Produce and retail	34	123	20	36	213
	Retail only	8	18	1	10	37
Total		42	141	21	46	250

**Crosstab 6.13:  
Producer-retailer Vs Retailer against Type of retailer**

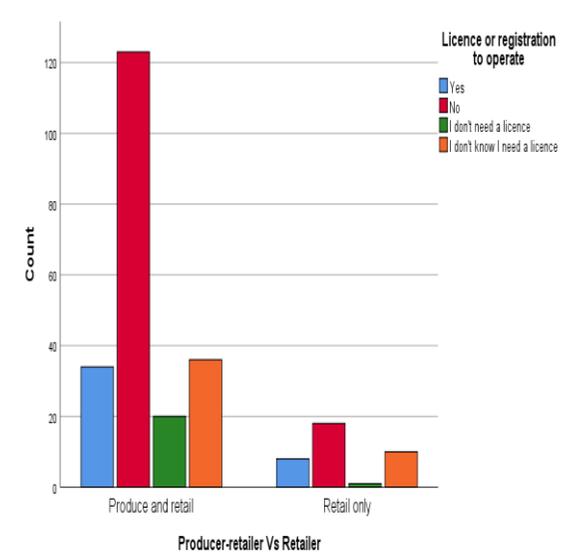
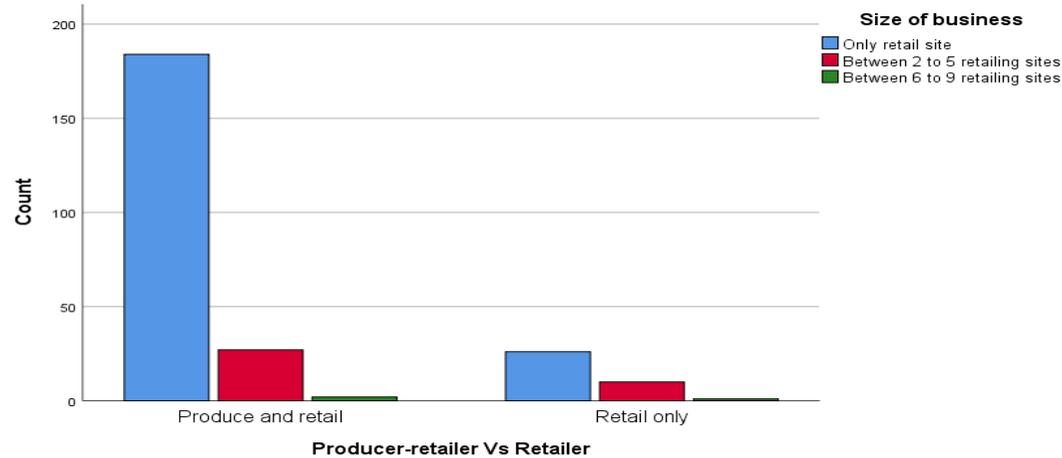
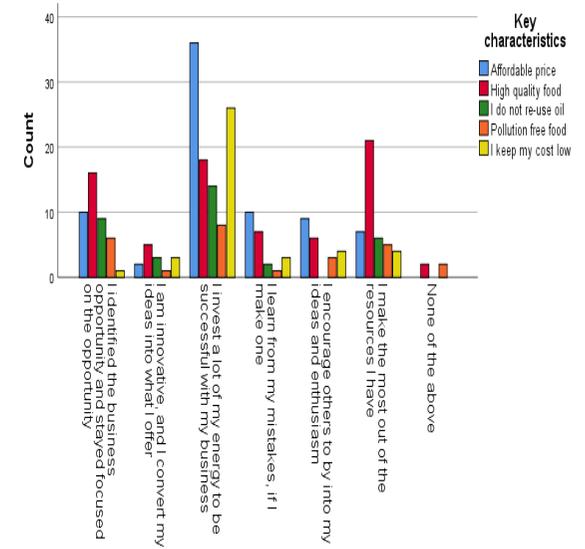
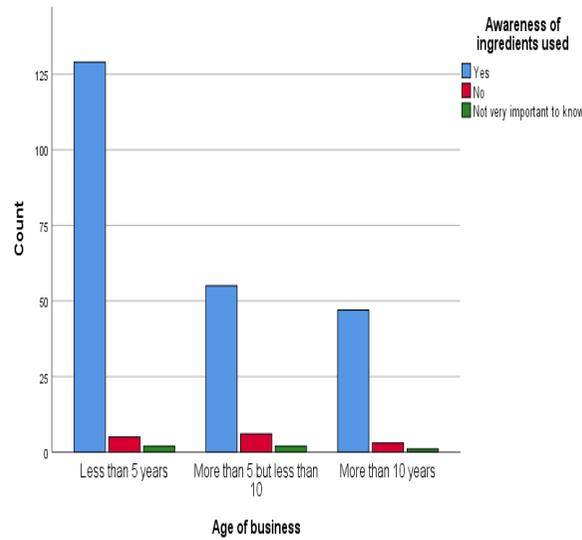
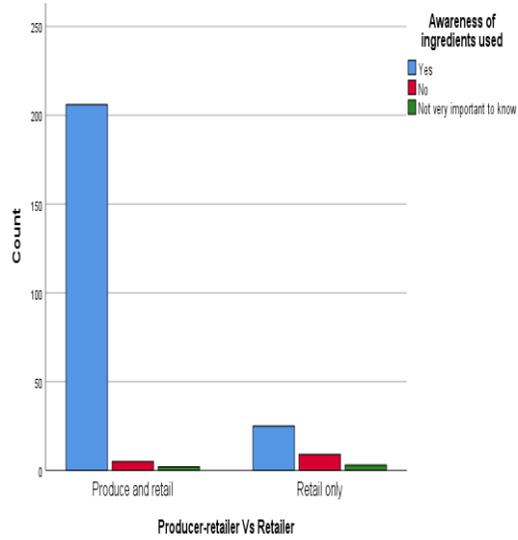
		Type of retailer				Total
		Street retailer-floating	Street retailer-static	Retail inside a restaurant	Retail both online and offline	
Producer-retailer Vs Retailer	Produce and retail	63	119	30	1	213
	Retail only	10	26	1	0	37
Total		73	145	31	1	250

**Crosstab 6.14:  
Producer-retailer Vs Retailer against Future planning**

		Future planning					Total	
		Grow the business by maintaining food safety standards	Serve safe food in affordable price	Anyhow make most profit from my investment	Save money and invest in better business	Not sure about future		Others
Producer-retailer Vs Retailer	Produce and retail	56	22	30	28	75	2	213
	Retail only	11	5	3	10	8	0	37
Total		67	27	33	38	83	2	250

**Crosstab 6.15:  
Best key feature against Key characteristics Crosstabulation**

		Key characteristics					Total
		Affordable price	High quality food	I do not re-use oil	Pollution free food	I keep my cost low	
Best key feature	I identified the business opportunity and stayed focused on the opportunity	10	16	9	6	1	42
	I am innovative, and I convert my ideas into what I offer	2	5	3	1	3	14
	I invest a lot of my energy to be successful with my business	36	18	14	8	26	102
	I learn from my mistakes, if I make one	10	7	2	1	3	23
	I encourage others to buy into my ideas and enthusiasm	9	6	0	3	4	22
	I make the most out of the resources I have	7	21	6	5	4	43
	None of the above	0	2	0	2	0	4
Total		74	75	34	26	41	250



Section 3: Cross-tabulations of objective one: Productive entrepreneurship through ethical and innovative practices

**Crosstab 6.16: Age of business against Uniqueness of business**

		Uniqueness of business						Total
		No one retail this item	My own recipe	My food is designed for	I keep price low but do	Production cost is low	No harmful chemicals	
Age of business	Less than 5 years	1	22	8	46	18	41	136
	More than 5 but less than 10	0	11	0	22	6	24	63
	More than 10 years	0	20	0	13	4	14	51
Total		1	53	8	81	28	79	250

**Crosstab 6.17: Age of business against Key attribute of ethical practice**

		Key attribute of ethical practice				Total
		Imported ingredients are carefully selected by	Does not have chemical	Contain regular/natural sugar		
Age of business	Less than 5 years	3	19	1		136
	More than 5 but less than 10	2	8	2		63
	More than 10 years	5	2	3		51
Total		10	29	6		250

**Crosstab 6.18: Age of business against Key attribute of ethical practice**

		Key attribute of ethical practice				Total
		Does not have chemical	Contain regular/	I am not aware of any such practice	Local ingredients are carefully	
Age of business	Less than 5 years	5	3	3		102
	More than 5 but less than 10	8	3	5		35
	More than 10 years	3	1	2		35
Total		16	7	10		172

**Crosstab 6.19: Age of business against Key attribute of innovative approach**

		Key attribute of innovative approach				Total
		Producer made it with good quality	Producer made it with good quality	I am not aware of any such practice	Local ingredients are carefully	
Age of business	Less than 5 years	1	5	6		119
	More than 5 but less than 10	2	3	11		43
	More than 10 years	2	2	3		37
Total		5	10	20		199

**Crosstab 6.20: Age of business against Key attribute of innovative approach**

		Key attribute of innovative approach			Total
		Imported ingredients are carefully selected by	I am not aware of any such practice		
Age of business	Less than 5 years	4	1		136
	More than 5 but less than 10	3	1		63
	More than 10 years	6	1		51
Total		13	3		250

**Crosstab 6.21: Age of business against Online business approach**

		Online business approach				Total
		I can retail my food via	Online retailing will	I cannot afford costs	I don't have technical	
Age of business	Less than 5 years	5	1	13	117	136
	More than 5 but less than 10	1	1	6	55	63
	More than 10 years	2	0	7	42	51
Total		8	2	26	214	250

**Crosstab 6.22: Age of business against Common technique of adulteration**

		Common technique of adulteration			
		Use of sweetener	Use of textile colours	Use of formalin	Use of preservatives
Age of business	Less than 5 years	36	9	26	12
	More than 5 but less than 10	16	6	7	6
	More than 10 years	6	9	8	4
Total		58	24	41	22

**Crosstab 6.23: Age of business against Common technique of adulteration**

		Common technique of adulteration			Total
		Use of inferior raw materials	Ineffective use of expiry date		
Age of business	Less than 5 years	21	32		136
	More than 5 but less than 10	17	11		63
	More than 10 years	11	13		51
Total		49	36		250

**Crosstab 6.24: Size of business against Number of employees**

		Number of employees				Total
		No other employee	1 to 5 employees	6 to 9 employees	10 or more employees	
Size of business	Only retail site	142	64	2	2	210
	Between 2 to 5 retailing sites	5	23	8	1	37
	Between 6 to 9 retailing sites	0	2	0	1	3
Total		147	89	10	4	250

**Crosstab 6.25: Awareness of ingredients used against Key attribute of ethical practice**

		Key attribute of ethical practice							Total
		Does not have regular/ I am not aware of any such ingredients	Local ingredients	Imported ingredients	Does not have regular/ I am not aware of any such ingredients	Contain regular/ I am not aware of any such ingredients			
Awareness of ingredients used	Yes	10	6	6	167	10	28	4	231
	No	5	1	3	2	0	1	2	14
	Not very imp to know	1	0	1	3	0	0	0	5
Total		16	7	10	172	10	29	6	250

**Crosstab 6.26: Awareness of ingredients used against Key attribute of innovative approach**

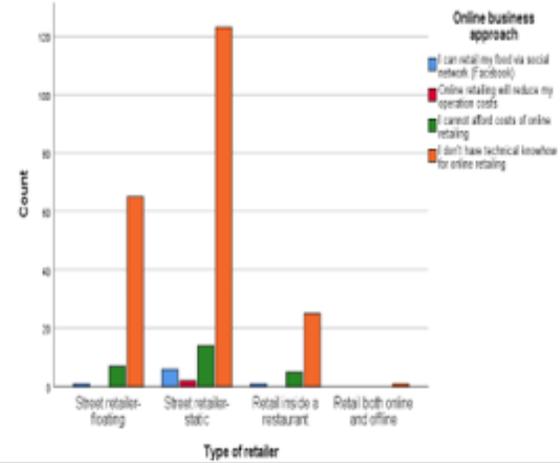
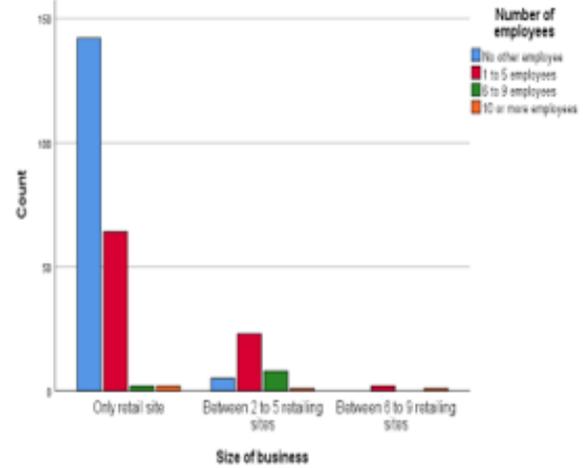
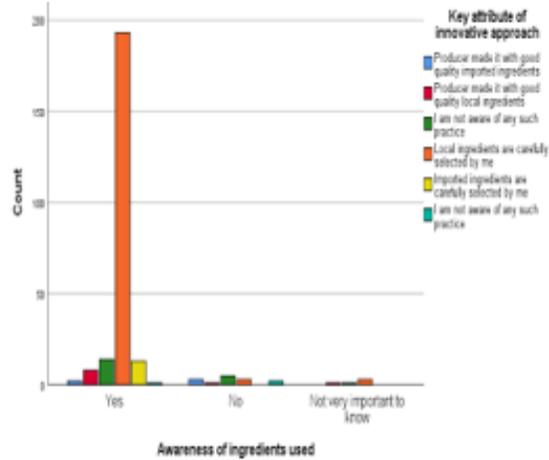
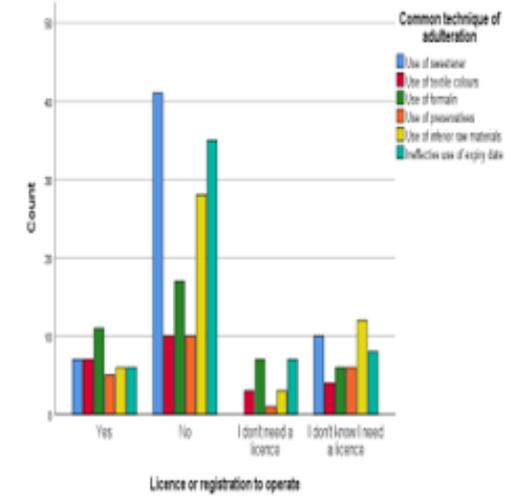
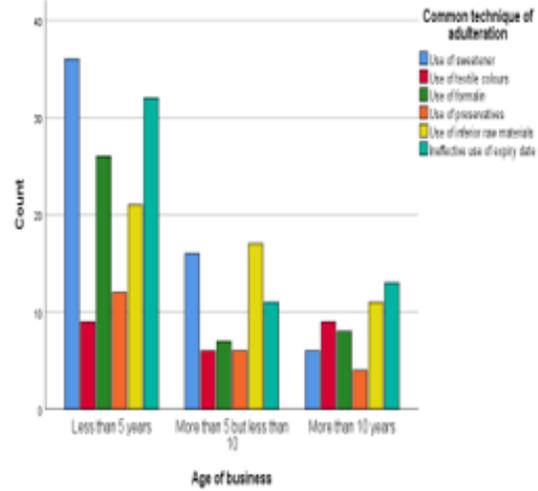
		Key attribute of innovative approach							Total
		Producer made it with regular/ I am not aware of any such ingredients	Local ingredients	Imported ingredients	Producer made it with regular/ I am not aware of any such ingredients	Local ingredients	Imported ingredients	I am not aware of any such ingredients	
Awareness of ingredients used	Yes	2	8	14	193	13	1	231	
	No	3	1	5	3	0	2	14	
	Not very important to	0	1	1	3	0	0	5	
Total		5	10	20	199	13	3	250	

**Crosstab 6.27: Licence or registration to operate against Common technique of adulteration**

		Common technique of adulteration						Total
		Use of sweetener	Use of textile	Use of formalin	Use of preservative	Use of inferior raw materials	Ineffective use of expiry date	
Licence or registration to operate	Yes	7	7	11	5	6	6	42
	No	41	10	17	10	28	35	141
	I don't know / I need licence	0	3	7	1	3	7	21
	I don't know / I don't need licence	10	4	6	6	12	8	46
Total		58	24	41	22	49	56	250

**Crosstab 6.28: Type of retailer against Online business approach**

Type of retailer	Online business approach					Total
	I can retail my food via social	Online retailing will reduce my	I cannot afford costs of online	I don't have technical knowhow for		
Street retailer-floating	1	0	7	65		73
Street retailer-static	6	2	14	123		145
Retail inside a restaurant	1	0	5	25		31
Retail both online and offline	0	0	0	1		1
<b>Total</b>	<b>8</b>	<b>2</b>	<b>26</b>	<b>214</b>	<b>25</b>	<b>0</b>



## Section 4: Cross-tabulations of objective two: Factors acting as a barrier for productive entrepreneurship

		Main barrier for Productive Entrepreneurship			
		Access to fund to support	Lack of knowledge on safe food	Lack of awareness on safe food	Government rules and regulations
Age of business	Less than 5 years	35	31	29	13
	More than 5 but less than 10	17	15	13	4
	More than 10 years	11	6	20	6
Total		63	52	62	23

		Main barrier for Productive Entrepreneurship		
		Difficult to complete against unethical business	Producing safe food is expensive	Total
Age of business	Less than 5 years	13	15	136
	More than 5 but less than 10	10	4	63
	More than 10 years	5	3	51
Total		28	22	250

		Undertaking training on food safety and adulteration		
		Most important	Important	Neither important nor unimportant
Age of business	Less than 5 years	18	16	32
	More than 5 but less than 10	12	8	8
	More than 10 years	5	5	5
Total		35	29	45

		Undertaking training on food safety and adulteration		
		Less important	Least important	Total
Age of business	Less than 5 years	26	44	136
	More than 5 but less than 10	12	23	63
	More than 10 years	17	19	51
Total		55	86	250

		Regulatory structure should be effective					Total
		Most important	Important	Neither important nor unimportant	Less important	Least important	
Producer-retailer Vs Retailer	Produce and retail	62	50	42	28	31	213
	Retail only	11	9	8	5	4	37
Total		73	59	50	33	35	250

		Awareness of rules and regulations on adulteration			Total
		Neither agree nor disagree	Agree	Strongly agree	
Producer-retailer Vs Retailer	Produce and retail	5	67	141	213
	Retail only	2	8	27	37
Total		7	75	168	250

**Crosstab 6.35: Producer-retailer Vs Retailer against Knowledge of amount of preservative I can use**

		Knowledge of amount of preservative I can use					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Producer-retailer Vs Retailer	Produce and retail	6	27	32	89	59	213
	Retail only	0	3	7	19	8	37
Total		6	30	39	108	67	250

**Crosstab 6.36: Licence or registration to operate against Licence to operate**

		Licence to operate					
		Most important	Important	Neither important nor Less important	Least important	Total	
Licence or registration to operate	Yes	14	13	8	3	4	42
	No	12	34	36	37	22	141
	I don't need a licence	4	8	6	2	1	21
	I don't know I need a licence	13	16	14	2	1	46
Total		43	71	64	44	28	250

**Crosstab 6.37: Licence or registration to operate against Food should be standard tested regularly**

		Food should be standard tested regularly					Total
		Most important	Important	Neither important	Less important	Least important	
Licence or registration to operate	Yes	7	6	6	11	12	42
	No	35	35	20	31	20	141
	I don't need a licence	3	2	4	4	8	21
	I don't know I need a licence	5	3	6	10	22	46
Total		50	46	36	56	62	250

**Crosstab 6.38: Awareness of ingredients used against Regulatory structure should be effective**

		Regulatory structure should be effective					Total
		Most important	Important	Neither important nor unimportant	Less important	Least important	
Awareness of ingredients used	Yes	68	53	46	31	33	231
	No	4	5	1	2	2	14
	Not very important to know	1	1	3	0	0	5
Total		73	59	50	33	35	250

**Crosstab 6.39: Awareness of ingredients used against Clear and concise information from regulatory body**

		Clear and concise information from regulatory body					Total
		Most important	Important	Neither important nor Less important	Least important		
Awareness of ingredients used	Yes	42	42	55	55	37	231
	No	4	3	1	5	1	14
	Not very important to know	2	0	0	2	1	5
Total		48	45	56	62	39	250

**Crosstab 6.40: Awareness of ingredients used against Awareness of ingredients not be used**

		Awareness of ingredients not to be used					Total
		Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Awareness of ingredients used	Yes	4	9	32	84	102	231
	No	0	1	3	5	5	14
	Not very important to know	0	0	1	2	2	5
Total		4	10	36	91	109	250

**Crosstab 6.41: Future planning against Undertaking training on food safety and adulteration**

		Undertaking training on food safety and adulteration					Total
		Least important	Important	Neither important nor	Less important	Least important	
Future planning	Grow the business by maintaining food safety standards	15	13	9	14	6	67
	Serve safe food in affordable price	1	6	7	4	9	27
	Anyhow make most profit from my investment	1	0	6	11	15	33
	Save money and invest in better business	6	3	3	10	16	38
	Not sure about future	12	7	20	15	29	83
	Others	0	0	0	1	1	2
	<b>Total</b>	<b>35</b>	<b>29</b>	<b>45</b>	<b>55</b>	<b>86</b>	<b>250</b>

**Crosstab 6.42: Future planning against Entrepreneurs adulterating makes more profit**

		Entrepreneurs adulterating makes more profit					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Future planning	Grow the business by maintaining food safety standards	0	2	7	19	39	67
	Serve safe food in affordable price	2	0	4	13	8	27
	Anyhow make most profit from my investment	0	1	2	7	23	33
	Save money and invest in better business	1	1	3	11	22	38
	Not sure about future	2	5	18	21	37	83
	Others	0	0	0	0	2	2
	<b>Total</b>	<b>5</b>	<b>9</b>	<b>34</b>	<b>71</b>	<b>131</b>	<b>250</b>

**Crosstab 6.43: Future planning against Unethical practice reduce production cost**

		Unethical practice reduces production cost					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Future planning	Grow the business by maintaining food safety standards	0	1	9	25	32	67
	Serve safe food in affordable price	0	1	4	10	12	27
	Anyhow make most profit from my investment	1	0	2	5	25	33
	Save money and invest in better business	1	2	3	11	21	38
	Not sure about future	2	4	11	28	38	83
	Others	0	0	0	0	2	2
	<b>Total</b>	<b>4</b>	<b>8</b>	<b>29</b>	<b>79</b>	<b>130</b>	<b>250</b>



**Crosstab 6.44: Future planning against Corrupt food inspectors**

		Corrupt food inspectors					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Future planning	Grow the business by maintaining food safety standards	7	4	14	26	16	67
	Serve safe food in affordable price	1	1	4	12	9	27
	Anyhow make most profit from my investment	12	5	2	8	6	33
	Save money and invest in better business	6	3	5	14	10	38
	Not sure about future	9	7	9	41	17	83
	Others	0	0	0	1	1	2
	<b>Total</b>	<b>35</b>	<b>20</b>	<b>34</b>	<b>102</b>	<b>59</b>	<b>250</b>

Crosstab 6.45: Barrier for Pro Ent & good quality for affordable price Crosstab

		Difficult to produce good quality for affordable price					
		SD	Dis	Neutral	Agree	SA	Total
Main barrier for Productive	Access to fund to support business	11	4	4	30	14	63
	Lack of knowledge on safe food	7	7	2	13	23	52
	Lack of awareness on safe food	10	5	2	26	19	62
	Government rules and regulations are too difficult to abide by	1	6	3	9	4	23
	Difficult to complete against unethical business	3	8	3	7	7	28
	Producing safe food is expensive	1	0	1	14	6	22
	<b>Total</b>	<b>33</b>	<b>30</b>	<b>15</b>	<b>99</b>	<b>73</b>	<b>250</b>

6.46: Technique of adulteration and Industrial colours

		Industrial colours rather than food colour					
		SD	Dis	Neutral	Agree	SA	Total
Common technique of adulteration	Use of sweetener	9	15	12	14	8	58
	Use of textile colours	4	6	6	4	4	24
	Use of formalin	7	4	7	14	9	41
	Use of preservatives	5	4	7	6	0	22
	Use of inferior raw materials	5	7	6	21	10	49
	Ineffective use of expiry date	6	7	5	21	17	56
	<b>Total</b>	<b>36</b>	<b>43</b>	<b>43</b>	<b>80</b>	<b>48</b>	<b>250</b>

Table 6.47: Every entrepreneur should have licence to operate (Question 17)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Most important	43	17.2	17.2	17.2
Important	71	28.4	28.4	45.6
Neither important nor unimportant	64	25.6	25.6	71.2
Less important	44	17.6	17.6	88.8
Least important	28	11.2	11.2	100.0
<b>Total</b>	<b>250</b>	<b>100.0</b>	<b>100.0</b>	

Table 6.49: Clear & concise information from regulatory body (Question 19)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Most important	48	19.2	19.2	19.2
Important	45	18.0	18.0	37.2
Neither important nor unimportant	56	22.4	22.4	59.6
Less important	62	24.8	24.8	84.4
Least important	39	15.6	15.6	100.0
<b>Total</b>	<b>250</b>	<b>100.0</b>	<b>100.0</b>	

Table 6.48: Regulatory structure should be effective (Question 18)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Most important	73	29.2	29.2	29.2
Important	59	23.6	23.6	52.8
Neither important nor unimportant	50	20.0	20.0	72.8
Less important	33	13.2	13.2	86.0
Least important	35	14.0	14.0	100.0
<b>Total</b>	<b>250</b>	<b>100.0</b>	<b>100.0</b>	

Table 6.50: Training on food safety and adulteration (Question 20)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Most important	35	14.0	14.0	14.0
Important	29	11.6	11.6	25.6
Neither important nor unimportant	45	18.0	18.0	43.6
Less important	55	22.0	22.0	65.6
Least important	86	34.4	34.4	100.0
<b>Total</b>	<b>250</b>	<b>100.0</b>	<b>100.0</b>	

Table 6.51: My food should be standard tested regularly (Question 21) Table 6.54: Entrepreneurs adulterating makes more profit (Question 24)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Most important	50	20.0	20.0	20.0
Important	46	18.4	18.4	38.4
Neither important nor unimportant	36	14.4	14.4	52.8
Less important	56	22.4	22.4	75.2
Least important	62	24.8	24.8	100.0
Total	250	100.0	100.0	

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	5	2.0	2.0	2.0
Disagree	9	3.6	3.6	5.6
Neither agree nor disagree	34	13.6	13.6	19.2
Agree	71	28.4	28.4	47.6
Strongly agree	131	52.4	52.4	100.0
Total	250	100.0	100.0	

Table 6.52: Awareness of rules and regulations on adulteration (Question 22) Table 6.55: Unethical practice reduce production cost (Question 25)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Neither agree nor disagree	7	2.8	2.8	2.8
Agree	75	30.0	30.0	32.8
Strongly agree	168	67.2	67.2	100.0
Total	250	100.0	100.0	

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	4	1.6	1.6	1.6
Disagree	8	3.2	3.2	4.8
Neither agree nor disagree	29	11.6	11.6	16.4
Agree	79	31.6	31.6	48.0
Strongly agree	130	52.0	52.0	100.0
Total	250	100.0	100.0	

Table 6.53: Difficult to produce good quality for affordable price (Question 23) Table 6.56: No of food inspectors are involved in corruption (Question 26)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	33	13.2	13.2	13.2
Disagree	30	12.0	12.0	25.2
Neither agree nor disagree	15	6.0	6.0	31.2
Agree	99	39.6	39.6	70.8
Strongly agree	73	29.2	29.2	100.0
Total	250	100.0	100.0	

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	35	14.0	14.0	14.0
Disagree	20	8.0	8.0	22.0
Neither agree nor disagree	34	13.6	13.6	35.6
Agree	102	40.8	40.8	76.4
Strongly agree	59	23.6	23.6	100.0
Total	250	100.0	100.0	

Table 6.57: Awareness of ingredients not to be used (Question 27)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	4	1.6	1.6	1.6
Disagree	10	4.0	4.0	5.6
Neither agree nor disagree	36	14.4	14.4	20.0
Agree	91	36.4	36.4	56.4
Strongly agree	109	43.6	43.6	100.0
Total	250	100.0	100.0	

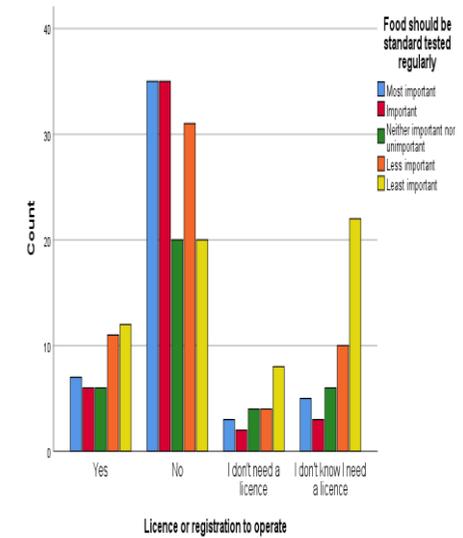
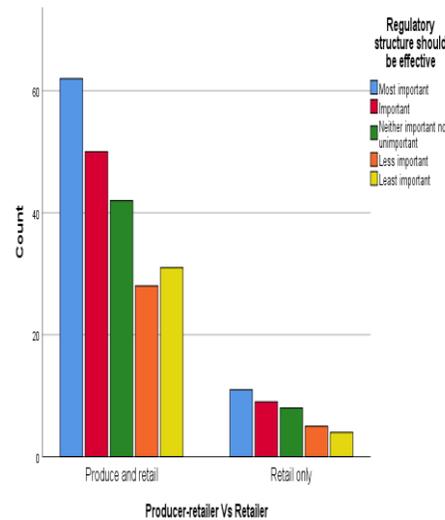
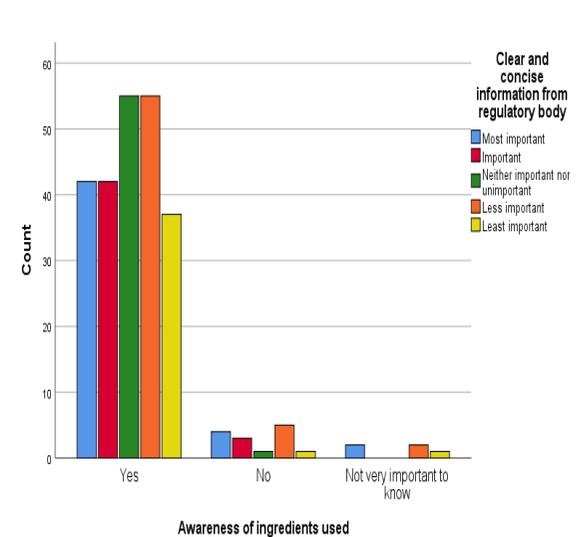
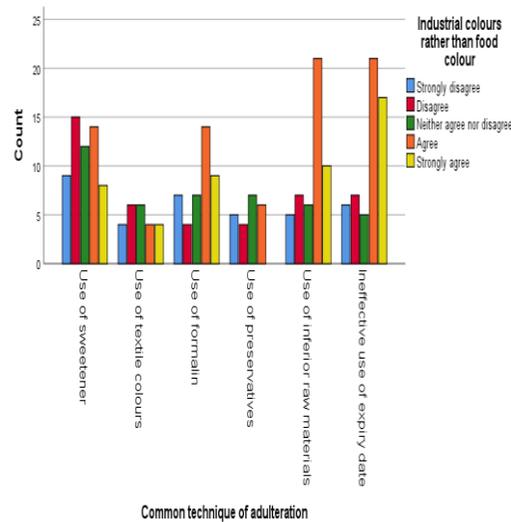
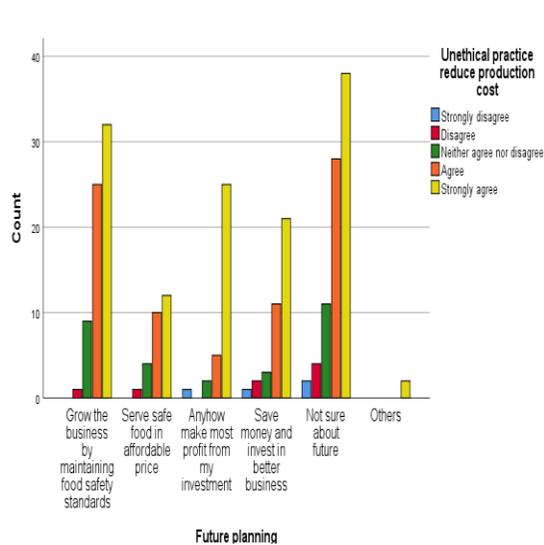
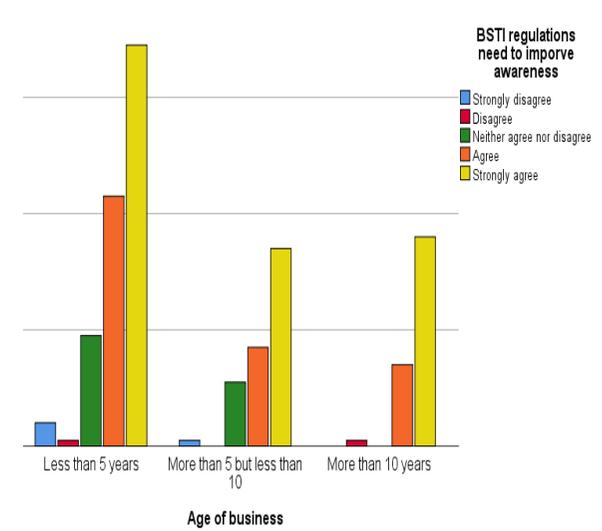
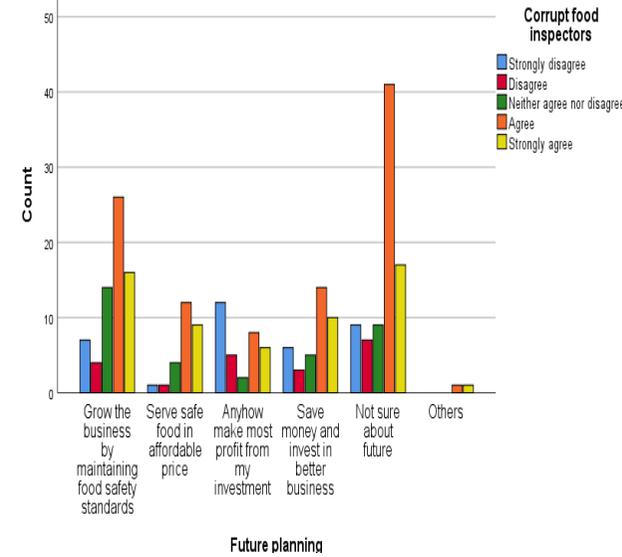
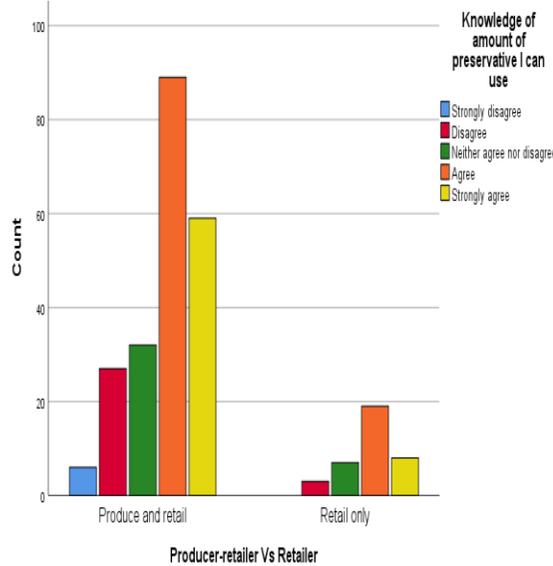
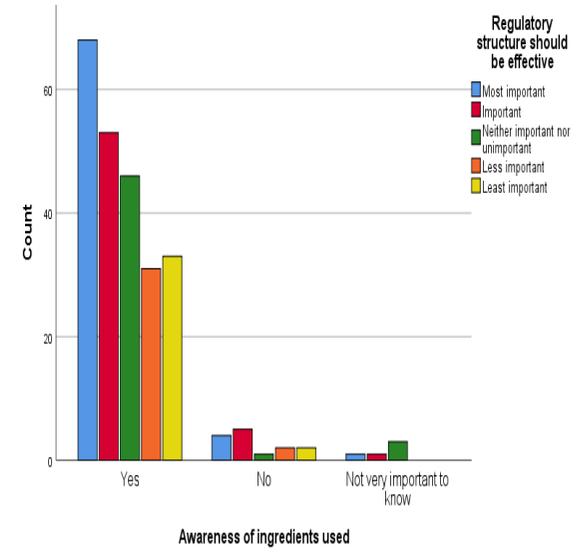
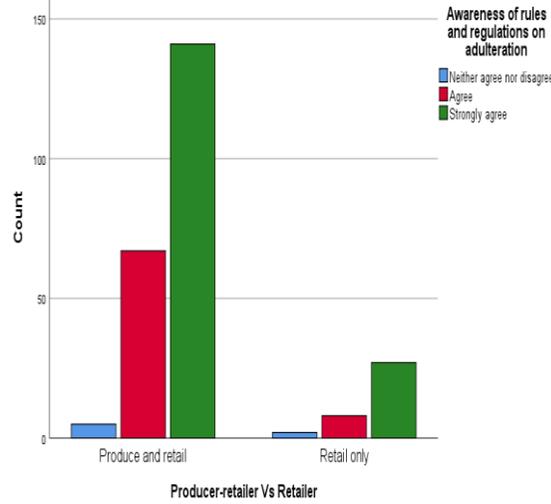
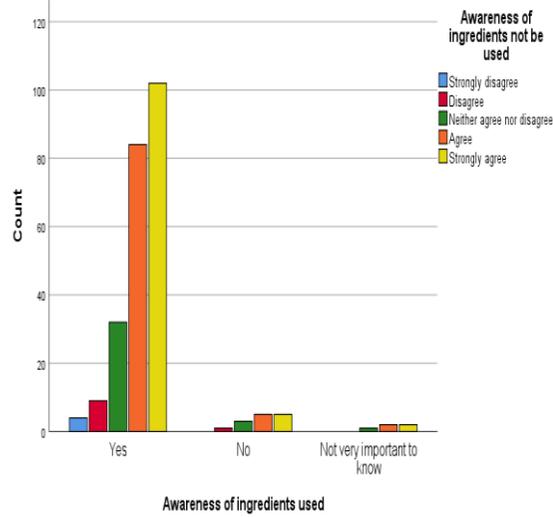


Table 6.58: Knowledge of preservative (Question 29)

Response options	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	6	2.4	2.4	2.4
Disagree	30	12.0	12.0	14.4
Neither agree nor disagree	39	15.6	15.6	30.0
Agree	108	43.2	43.2	73.2
Strongly agree	67	26.8	26.8	100.0
Total	250	100.0	100.0	





Section 5: Cross-tabulations of objective three: Role of institution

**Crosstab 6.59: Licence or registration to operate against Rules and regulations needed to be welcomed**

		Rules and regulations needed to be welcomed			Total
		Neither agree nor disagree	Agree	Strongly agree	
Licence or registration to operate	Yes	3	12	27	42
	No	6	87	48	141
	I don't need a licence	1	0	20	21
	I don't know I need a licence	1	13	32	46
	Total	11	112	127	250

**Crosstab 6.60: Licence or registration to operate against BSTI regulations need to improve awareness**

		BSTI regulations need to improve awareness					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Licence or registration to operate	Yes	0	0	4	12	26	42
	No	5	1	26	51	58	141
	I don't need a licence	0	1	0	2	18	21
	I don't know I need a licence	0	0	0	9	37	46
	Total	5	2	30	74	139	250

**Crosstab 6.61: Licence or registration to operate against CAB need to improve awareness**

		CAB need to improve awareness					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Licence or registration to operate	Yes	0	0	4	12	26	42
	No	1	3	54	32	51	141
	I don't need a licence	0	0	1	1	19	21
	I don't know I need a licence	0	0	3	15	28	46
	Total	1	3	62	60	124	250

**Crosstab 6.62: Awareness of ingredients used against Rules and regulations needed to be welcomed**

		Rules and regulations needed to be welcomed			Total
		Neither agree nor disagree	Agree	Strongly agree	
Awareness of ingredients	Yes	11	106	114	231
	No	0	4	10	14
	Not very important to know	0	2	3	5
	Total	11	112	127	250

**Crosstab 6.63: Licence or registration to operate against Licence for entrepreneurs are necessary**

		Licence for Entrepreneurs are Necessary					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Licence or registration to operate	Yes	1	0	1	6	34	42
	No	1	6	18	70	46	141
	I don't need a licence	0	1	3	2	15	21
	I don't know I need a licence	0	5	4	3	34	46
	Total	2	12	26	81	129	250

**Crosstab 6.64: Licence or registration to operate against Goodwill is important**

		Goodwill is Important					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Licence or registration to operate	Yes	0	0	0	7	35	42
	No	0	1	3	64	73	141
	I don't need a licence	1	0	0	1	19	21
	I don't know I need a licence	0	0	0	7	39	46
	Total	1	1	3	79	166	250

		Modernisation of Regulations and Penalty					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Licence or registration to operate	Yes	0	1	11	12	18	42
	No	1	1	17	79	43	141
	I don't need a licence	0	1	2	3	15	21
	I don't know I need a licence	0	0	11	17	18	46
Total		1	3	41	111	94	250

		Awareness of ingredients not to be used					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Awareness of ingredients used	Yes	0	2	38	104	87	231
	No	1	1	2	4	6	14
	Not very important to know	0	0	1	3	1	5
	Total	1	3	41	111	94	250

		Goodwill is important					Total
		SD	Dis	Neutral	Agree	SA	
Future planning	Grow the business by maintaining food safety standards	0	0	2	25	40	67
	Serve safe food in affordable price	0	0	0	9	18	27
	Anyhow make most profit from my investment	0	0	0	3	30	33
	Save money and invest in better business	1	0	1	9	27	38
	Not sure about future	0	1	0	33	49	83
	Others	0	0	0	0	2	2
	Total	1	1	3	79	166	250

		BSTI need to encourage fair competition				Total
		Dis	Neutral	Agree	SA	
Future planning	Grow the business by maintaining food safety standards	0	12	30	25	67
	Serve safe food in affordable price	1	2	11	13	27
	Anyhow make most profit from my investment	0	2	7	24	33
	Save money and invest in better business	3	8	16	11	38
	Not sure about future	5	13	21	44	83
	Others	0	0	0	2	2
Total		9	37	85	119	250

		Rules and regulations needed to be welcomed			Total
		Neither agree nor disagree	Agree	Strongly agree	
Age of business	Less than 5 years	8	61	67	136
	More than 5 but less than 10	2	37	24	63
	More than 10 years	1	14	36	51
	Total	11	112	127	250

		BSTI need to encourage fair competition				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Age of business	Less than 5 years	5	18	45	68	136
	More than 5 but less than 10	3	12	22	26	63
	More than 10 years	1	7	18	25	51
	Total	9	37	85	119	250

**Crosstab 6.71: Age of business against Licence for entrepreneurs are necessary**

		Licence for entrepreneurs are necessary					Total
		SD	Dis	Neutral	Agree	SA	
Age of business	Less than 5 years	1	5	13	54	63	136
	More than 5 but less than 10	1	4	7	23	28	63
	More than 10 years	0	3	6	4	38	51
	Total	2	12	26	81	129	250

**Crosstab 6.72: Age of business against Do not have access to information**

		Do not have access to information					Total
		SD	Dis	Neutral	Agree	SA	
Age of business	Less than 5 years	21	38	20	48	9	136
	More than 5 but less than 10	13	21	14	12	3	63
	More than 10 years	22	17	6	5	1	51
	Total	56	76	40	65	13	250

**Crosstab 6.73: Age of business against Goodwill is important**

		Goodwill is important					Total
		SD	Dis	Neutral	Agree	SA	
Age of business	Less than 5 years	1	0	3	48	84	136
	More than 5 but less than 10	0	1	0	21	41	63
	More than 10 years	0	0	0	10	41	51
	Total	1	1	3	79	166	250

**Crosstab 6.74: Producer-retailer Vs Retailer against Rules and regulations needed to be welcomed**

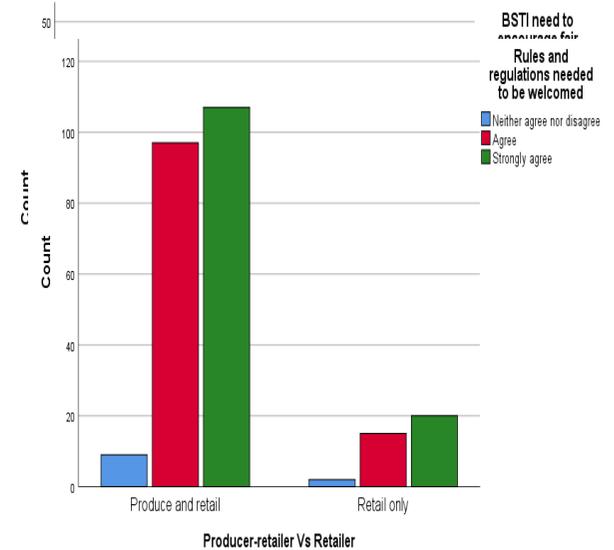
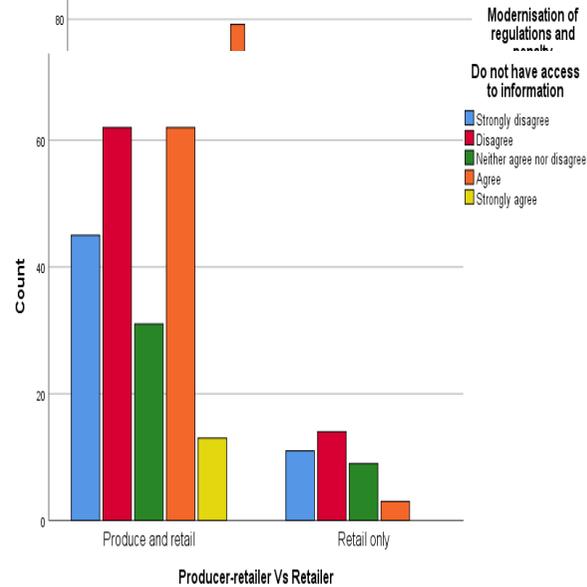
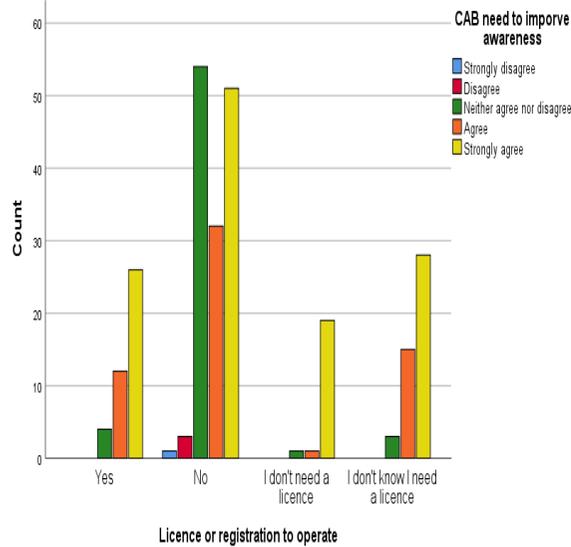
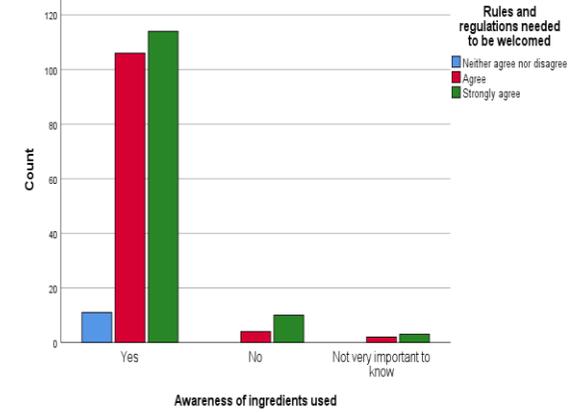
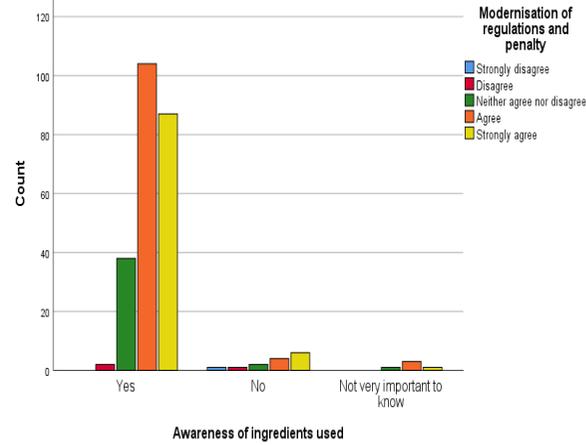
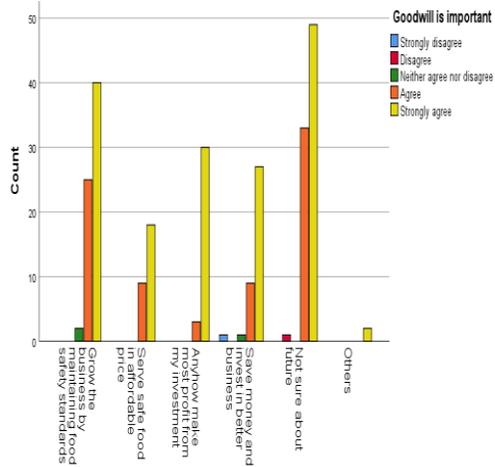
		Rules and regulations needed to be welcomed			Total
		Neither agree nor disagree	Agree	Strongly agree	
Producer-retailer Vs Retailer	Produce and retail	9	97	107	213
	Retail only	2	15	20	37
Total		11	112	127	250

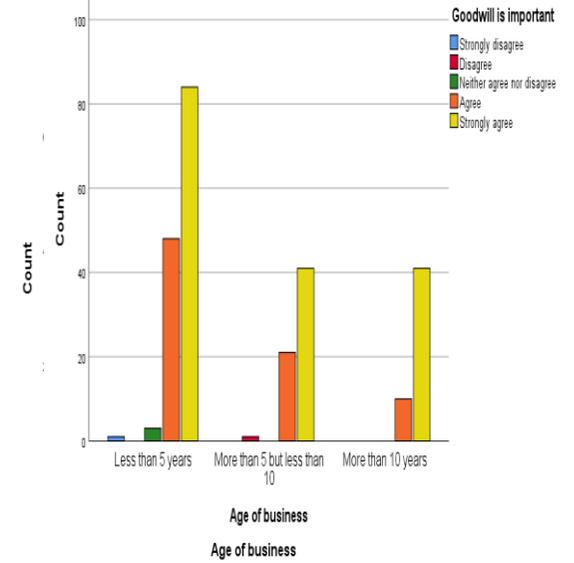
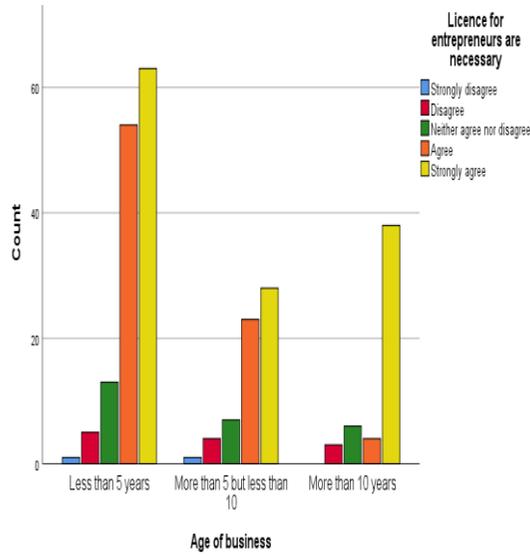
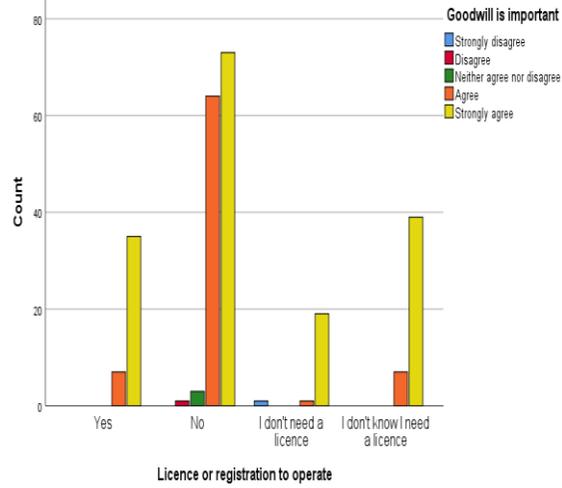
**Crosstab 6.75: Producer-retailer Vs Retailer against Do not have access to information**

		Do not have access to information					Total
		SD	Dis	Neutral	Agree	SA	
Producer-retailer Vs Retailer	Produce and retail	45	62	31	62	13	213
	Retail only	11	14	9	3	0	37
Total		56	76	40	65	13	250

**Crosstab 6.76: Type of retailer against Do not have access to information**

		Do not have access to information					Total
		SD	Dis	Neutral	Agree	SA	
Type of retailer	Street retailer-floating	12	22	12	23	4	73
	Street retailer-static	33	42	27	34	9	145
	Retail inside a restaurant	11	11	1	8	0	31
	Retail both online and offline	0	1	0	0	0	1
Total		56	76	40	65	13	250





Section 6: Cross-tabulations of objective four: Framework to encourage ethics and innovation

**Crosstab 6.77: Age of business against Financially not able to follow GP**

		Financially not able to follow GP					Total
		SD	Dis	Neutr al	Agree	SA	
Age of business	Less than 5 years	21	14	35	42	24	136
	More than 5 but less than 10	12	14	14	15	8	63
	More than 10 years	18	11	1	10	11	51
Total		51	39	50	67	43	250

**Crosstab 6.78: Age of business against Entrepreneurs need to be aware of GP**

		Entrepreneurs need to be aware of GP					Total
		SD	Dis	Neutr al	Agree	SA	
Age of business	Less than 5 years	0	2	18	46	70	136
	More than 5 but less than 10	1	0	12	24	26	63
	More than 10 years	0	0	4	14	33	51
Total		1	2	34	84	129	250

**Crosstab 6.79: Age of business against Importance of GP**

		Importance of GP			Total
		Neutral	Agree	SA	
Age of business	Less than 5 years	5	13	118	136
	More than 5 but less than 10	7	11	45	63
	More than 10 years	5	13	33	51
Total		17	37	196	250

**Crosstab 6.80: Age of business against Aware of GP that I can follow**

		Aware of GP that I can follow				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Age of business	Less than 5 years	1	5	59	71	136
	More than 5 but less than 10	0	2	29	32	63
	More than 10 years	0	4	6	41	51
Total		1	11	94	144	250

**Crosstab 6.81: Producer-retailer Vs Retailer against Aware of GP that I can follow**

		Aware of GP that I can follow				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Producer-retailer Vs Retailer	Produce and retail	1	9	84	119	213
	Retail only	0	2	10	25	37
Total		1	11	94	144	250

**Crosstab 6.82: Producer-retailer Vs Retailer against Financially not able to follow GP**

		Financially not able to follow GP					Total
		SD	Dis	Neutral	Agree	SA	
Producer-retailer Vs Retailer	Produce and retail	37	31	44	61	40	213
	Retail only	14	8	6	6	3	37
Total		51	39	50	67	43	250

**Crosstab 6.83: Type of retailer against Aware of GP that I can follow**

		Aware of GP that I can follow				
		Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
Type of retailer	Street retailer-floating	1	3	26	43	73
	Street retailer-static	0	8	60	77	145
	Retail inside a restaurant	0	0	8	23	31
	Retail both online and offline	0	0	0	1	1
	<b>Total</b>	<b>1</b>	<b>11</b>	<b>94</b>	<b>144</b>	<b>250</b>

**Crosstab 6.84: Type of retailer against Entrepreneurs need to be aware of GP**

		Entrepreneurs need to be aware of GP					
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
Type of retailer	Street retailer-floating	1	0	14	22	36	73
	Street retailer-static	0	2	20	57	66	145
	Retail inside a restaurant	0	0	0	5	26	31
	Retail both online and offline	0	0	0	0	1	1
	<b>Total</b>	<b>1</b>	<b>2</b>	<b>34</b>	<b>84</b>	<b>129</b>	<b>250</b>

**Crosstab 6.85: Key characteristics against Parents need to be aware of GP**

		Parents need to be aware of GP				
		Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
Key characteristics	Affordable price	0	5	20	49	74
	High quality food	0	5	9	61	75
	I do not re-use oil	1	0	3	30	34
	Pollution free food	0	3	5	18	26
	I keep my cost low	0	1	10	30	41
<b>Total</b>	<b>1</b>	<b>14</b>	<b>47</b>	<b>188</b>	<b>250</b>	

**Crosstab 6.86: Key characteristics against Children need to be aware of GP**

		Children need to be aware of GP				
		Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
Key characteristics	Affordable price	1	16	24	33	74
	High quality food	1	6	24	44	75
	I do not re-use oil	0	2	2	30	34
	Pollution free food	0	6	8	12	26
	I keep my cost low	0	6	19	16	41
	<b>Total</b>	<b>2</b>	<b>36</b>	<b>77</b>	<b>135</b>	<b>250</b>

**Crosstab 6.87: Size of business against Importance of GP**

		Importance of GP			Total
		Neither agree nor disagree	Agree	Strongly agree	
Size of business	Only retail site	11	25	174	210
	Between 2 to 5 retailing sites	6	11	20	37
	Between 6 to 9 retailing sites	0	1	2	3
	<b>Total</b>	<b>17</b>	<b>37</b>	<b>196</b>	<b>250</b>

**Crosstab 6.88: Uniqueness of business against Parents need to be aware of GP**

		Parent need to be aware of GP				
		Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
Uniqueness of business	No one retail this item	0	0	0	1	1
	My own recipe	0	1	5	47	53
	My food is designed for children	0	0	2	6	8
	I keep price low but do not compromise quality	0	6	18	57	81
	Production cost is low	0	5	7	16	28
	No harmful chemicals used	1	2	15	61	79
<b>Total</b>	<b>1</b>	<b>14</b>	<b>47</b>	<b>188</b>	<b>250</b>	

**Crosstab 6.89: Uniqueness of business against Children need to be aware of GP**  
Crosstabulation

		Children need to be aware of GP				
		Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
Uniqueness of business	No one retail this item	0	0	0	1	1
	My own recipe	0	3	14	36	53
	My food is designed for children	0	3	1	4	8
	I keep price low but do not compromise quality	0	12	27	42	81
	Production cost is low	1	10	5	12	28
	No harmful chemicals used	1	8	30	40	79
	<b>Total</b>	<b>2</b>	<b>36</b>	<b>77</b>	<b>135</b>	<b>250</b>

**Crosstab 6.90: Key attribute of ethical practice against Parents need to be aware of GP**

		Parents need to be aware of GP				
		Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
Key attribute of ethical practice	Does not have chemical	0	3	4	9	16
	Contain regular/ natural sugar	0	0	0	7	7
	I am not aware of any such practice	0	0	0	10	10
	Local ingredients are carefully selected by me	1	8	28	135	172
	Imported ingredients are carefully selected by me	0	0	0	10	10
	Does not have chemical	0	1	14	14	29
	Contain regular/ natural sugar	0	2	1	3	6
	<b>Total</b>	<b>1</b>	<b>14</b>	<b>47</b>	<b>188</b>	<b>250</b>

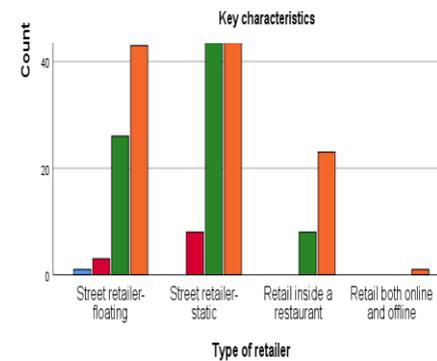
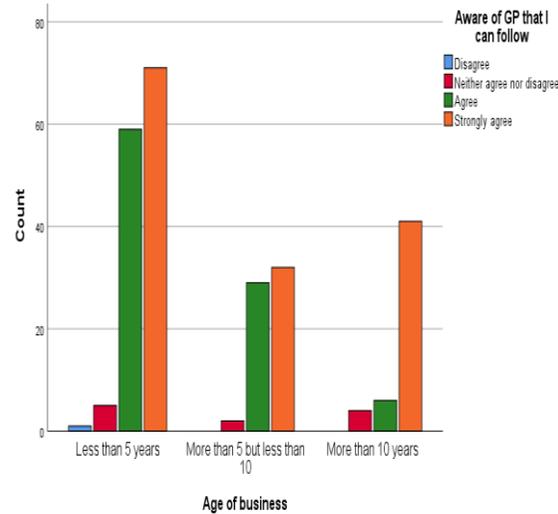
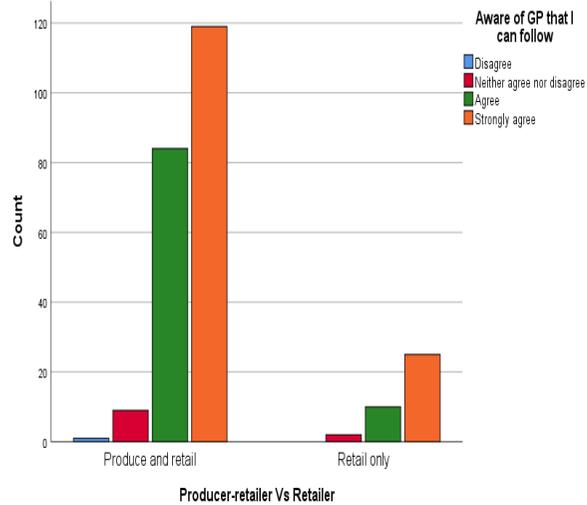
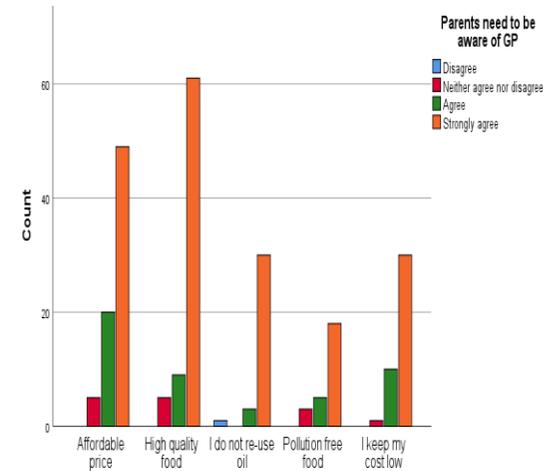
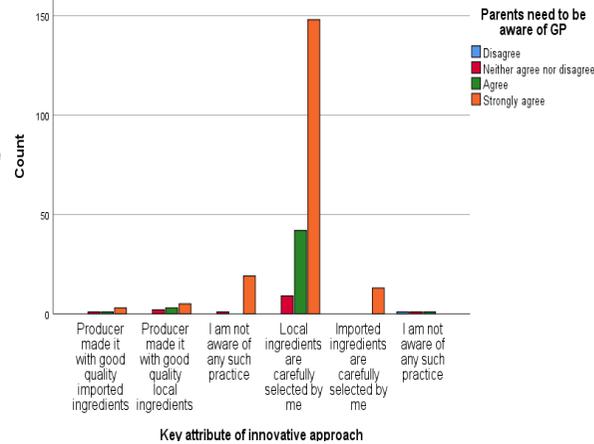
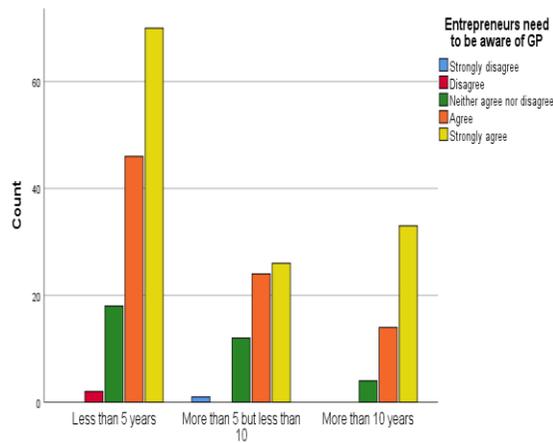
**Crosstab 6.91: Key attribute of ethical practice against Children need to be aware of GP**

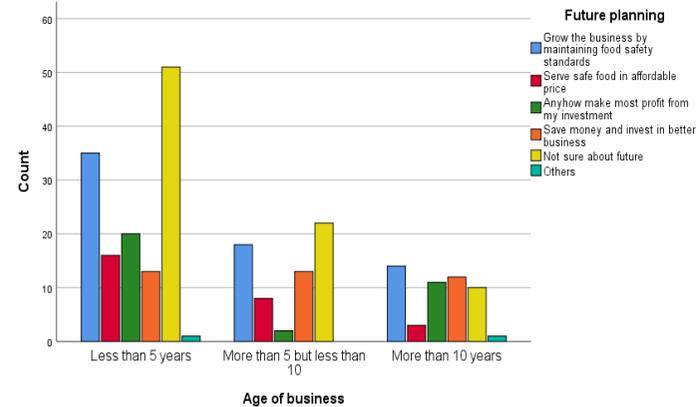
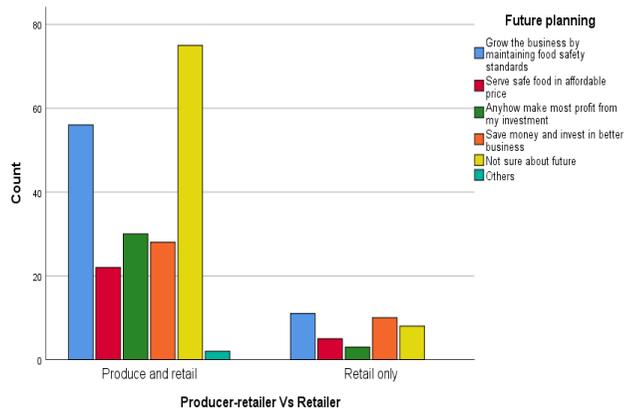
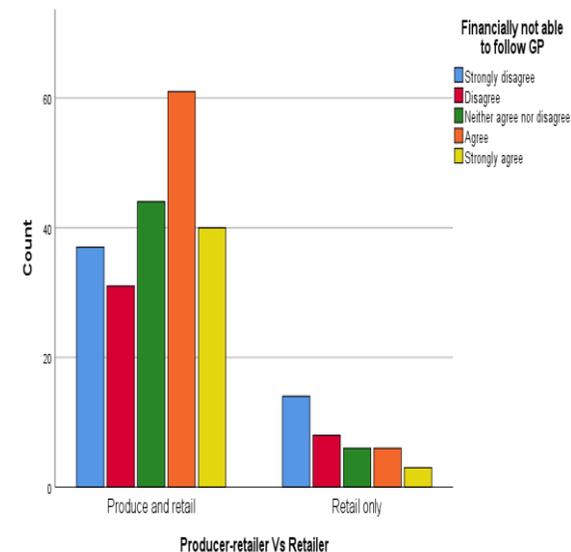
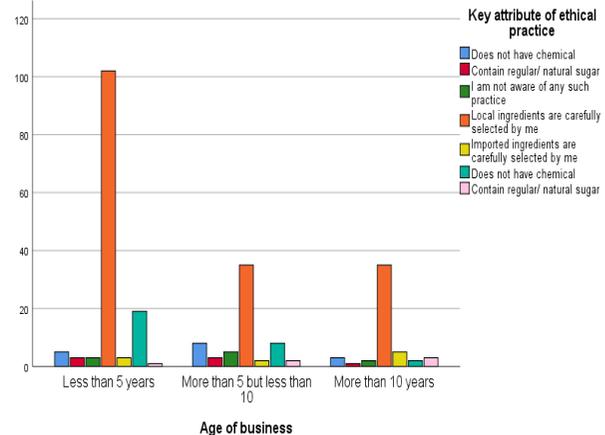
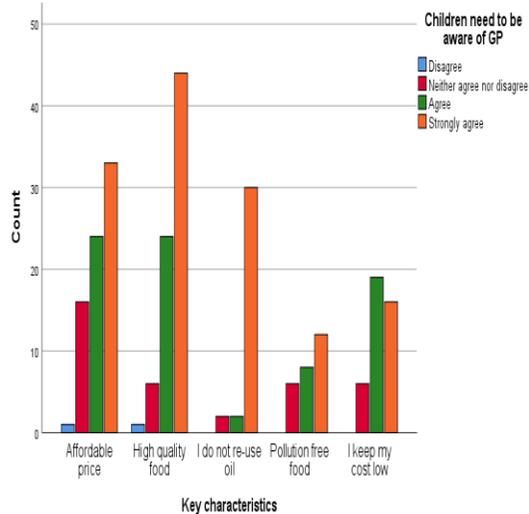
		Children need to be aware of GP				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Key attribute of ethical practice	Does not have chemical	0	1	5	10	16
	Contain regular/ natural sugar	0	0	2	5	7
	I am not aware of any such practice	0	0	1	9	10
	Local ingredients are carefully selected by me	0	22	59	91	172
	Imported ingredients are carefully selected by me	0	1	1	8	10
	Does not have chemical	1	10	8	10	29
	Contain regular/ natural sugar	1	2	1	2	6
	<b>Total</b>	<b>2</b>	<b>36</b>	<b>77</b>	<b>135</b>	<b>250</b>

		Parents need to be aware of GP				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Key attribute of innovative approach	Producer made it with good quality imported ingredients	0	1	1	3	5
	Producer made it with good quality local ingredients	0	2	3	5	10
	I am not aware of any such practice	0	1	0	19	20
	Local ingredients are carefully selected by me	0	9	42	148	199
	Imported ingredients are carefully selected by me	0	0	0	13	13
	I am not aware of any such practice	1	1	1	0	3
	<b>Total</b>	<b>1</b>	<b>14</b>	<b>47</b>	<b>188</b>	<b>250</b>

		Children need to be aware of GP				Total
		Disagree	Neither agree nor disagree	Agree	Strongly agree	
Key attribute of innovative approach	Producer made it with good quality imported ingredients	0	0	1	4	5
	Producer made it with good quality local ingredients	0	1	3	6	10
	I am not aware of any such practice	0	0	5	15	20
	Local ingredients are carefully selected by me	1	35	65	98	199
	Imported ingredients are carefully selected by me	0	0	1	12	13
	I am not aware of any such practice	1	0	2	0	3
	<b>Total</b>	<b>2</b>	<b>36</b>	<b>77</b>	<b>135</b>	<b>250</b>

		Financially not able to follow GP					Total
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
Main barrier for Productive Entrepreneurship	Access to fund to support business	16	5	13	22	7	63
	Lack of knowledge on safe food	6	8	14	13	11	52
	Lack of awareness on safe food	18	14	7	8	15	62
	Government rules and regulations are too difficult to abide by	4	6	6	6	1	23
	Difficult to complete against unethical business	6	6	6	7	3	28
	Producing safe food is expensive	1	0	4	11	6	22
<b>Total</b>	<b>51</b>	<b>39</b>	<b>50</b>	<b>67</b>	<b>43</b>	<b>250</b>	





## Appendix 4

### 7.1 Additional chi-square test of independence tables

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.872 <sup>a</sup>	6	.438
Likelihood Ratio	5.974	6	.426
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.046 <sup>a</sup>	12	.189
Likelihood Ratio	15.611	12	.210
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.968 <sup>a</sup>	18	.525
Likelihood Ratio	18.374	18	.431
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	18.837 <sup>a</sup>	10	.042
Likelihood Ratio	22.935	10	.011
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.905 <sup>a</sup>	15	.268
Likelihood Ratio	19.583	15	.189
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	25.689 <sup>a</sup>	12	.012
Likelihood Ratio	24.393	12	.018
Linear-by-Linear Association	.794	1	.373
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	26.062 <sup>a</sup>	18	.098
Likelihood Ratio	22.057	18	.229
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.292 <sup>a</sup>	10	.068
Likelihood Ratio	12.110	10	.278
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6.967 <sup>a</sup>	15	.959
Likelihood Ratio	6.930	15	.960
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	17.342 <sup>a</sup>	3	.001
Likelihood Ratio	14.159	3	.003
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.903 <sup>a</sup>	9	.019
Likelihood Ratio	12.642	9	.179
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.216 <sup>a</sup>	10	.341
Likelihood Ratio	10.947	10	.362
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	19.585 <sup>a</sup>	15	.188
Likelihood Ratio	18.586	15	.233
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.169 <sup>a</sup>	5	.208
Likelihood Ratio	10.201	5	.070
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.707 <sup>a</sup>	10	.305
Likelihood Ratio	15.447	10	.117
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.260 <sup>a</sup>	8	.321
Likelihood Ratio	10.098	8	.258
Linear-by-Linear Association	5.107	1	.024
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.038 <sup>a</sup>	8	.339
Likelihood Ratio	10.491	8	.232
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.645 <sup>a</sup>	8	.469
Likelihood Ratio	7.880	8	.445
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.434 <sup>a</sup>	8	.392
Likelihood Ratio	7.920	8	.441
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.177 <sup>a</sup>	8	.192
Likelihood Ratio	12.066	8	.148
Linear-by-Linear Association	3.045	1	.081
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.242 <sup>a</sup>	4	.871
Likelihood Ratio	1.249	4	.870
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.361 <sup>a</sup>	8	.182
Likelihood Ratio	11.240	8	.188
Linear-by-Linear Association	1.452	1	.228
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.500 <sup>a</sup>	8	.070
Likelihood Ratio	11.121	8	.195
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.084 <sup>a</sup>	4	.544
Likelihood Ratio	3.193	4	.526
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.114 <sup>a</sup>	15	.016
Likelihood Ratio	32.104	15	.006
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	18.518 <sup>a</sup>	12	.101
Likelihood Ratio	22.550	12	.032
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.878 <sup>a</sup>	12	.627
Likelihood Ratio	10.043	12	.612
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.884 <sup>a</sup>	12	.052
Likelihood Ratio	22.117	12	.036
Linear-by-Linear Association	.004	1	.952
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	31.183 <sup>a</sup>	20	.053
Likelihood Ratio	32.183	20	.041
Linear-by-Linear Association	.943	1	.332
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	27.158 <sup>a</sup>	18	.076
Likelihood Ratio	28.940	18	.049
Linear-by-Linear Association	.604	1	.437
N of Valid Cases	250		

**Table 7.31: Chi-Square Tests for CAB to improve awareness with Key attribute of innovative practices**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	96.993 <sup>a</sup>	20	.000
Likelihood Ratio	27.652	20	.118
Linear-by-Linear Association	3.107	1	.078
N of Valid Cases	250		

**Table 7.32: Chi-Square Tests for Modernisation of regulation and penalty with Key attribute of ethical practices**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	31.358 <sup>a</sup>	24	.144
Likelihood Ratio	14.075	24	.945
Linear-by-Linear Association	.355	1	.551
N of Valid Cases	250		

**Table 7.33: Chi-Square Tests for Modernisation of regulation and penalty with Key attribute of innovative practices**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	56.894 <sup>a</sup>	20	.000
Likelihood Ratio	20.231	20	.444
Linear-by-Linear Association	.595	1	.440
N of Valid Cases	250		

**Table 7.34: Chi-Square Tests for Licence needed with Uniqueness of Business**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	31.840 <sup>a</sup>	20	.045
Likelihood Ratio	37.134	20	.011
Linear-by-Linear Association	2.941	1	.086
N of Valid Cases	250		

**Table 7.35: Chi-Square Tests for Licence needed with Key attribute of innovative practices**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	45.796 <sup>a</sup>	20	.001
Likelihood Ratio	37.749	20	.010
Linear-by-Linear Association	.736	1	.391
N of Valid Cases	250		

**Table 7.36: Chi-Square Tests for No access to information with Uniqueness of Business**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	37.560 <sup>a</sup>	20	.010
Likelihood Ratio	39.177	20	.006
Linear-by-Linear Association	4.971	1	.026
N of Valid Cases	250		

**Table 7.37: Chi-Square Tests for I am aware of Good Practices (GP) with Common technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.775 <sup>a</sup>	15	.017
Likelihood Ratio	31.054	15	.009
Linear-by-Linear Association	1.307	1	.253
N of Valid Cases	250		

**Table 7.38: Chi-Square Tests for Entrepreneurs need to be aware of GP with Common technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	32.189 <sup>a</sup>	20	.041
Likelihood Ratio	28.835	20	.091
Linear-by-Linear Association	.031	1	.859
N of Valid Cases	250		

**Table 7.39: Chi-Square Tests for Parents need to be aware of GP with Common technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.092 <sup>a</sup>	15	.012
Likelihood Ratio	30.563	15	.010
Linear-by-Linear Association	8.902	1	.003
N of Valid Cases	250		

**Table 7.40: Chi-Square Tests for Children need to be aware of GP with Common technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	76.605 <sup>a</sup>	15	.000
Likelihood Ratio	73.299	15	.000
Linear-by-Linear Association	2.100	1	.147
N of Valid Cases	250		

**Table 7.41: Chi-Square Tests for I am aware of Good Practices (GP) with Uniqueness of business**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.692 <sup>a</sup>	15	.147
Likelihood Ratio	19.184	15	.206
Linear-by-Linear Association	.255	1	.614
N of Valid Cases	250		

**Table 7.42: Chi-Square Tests for Parents need to be aware of GP with Innovative approach**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	106.314 <sup>a</sup>	15	.000
Likelihood Ratio	37.347	15	.001
Linear-by-Linear Association	.090	1	.764
N of Valid Cases	250		

**Table 7.43: Chi-Square Tests for Children need to be aware of GP with Ethical practice**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	47.201 <sup>a</sup>	18	.000
Likelihood Ratio	33.848	18	.013
Linear-by-Linear Association	13.603	1	.000
N of Valid Cases	250		

**Table 7.44: Chi-Square Tests for Uniqueness of Business with Type of Retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.957 <sup>a</sup>	5	.035
Likelihood Ratio	13.302	5	.021
N of Valid Cases	250		

**Table 7.45: Chi-Square Tests for Key Attributes of Ethical Practices with Type of Retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	219.556 <sup>a</sup>	6	.000
Likelihood Ratio	173.263	6	.000
N of Valid Cases	250		

**Table 7.46: Chi-Square Tests for Key Attributes of Innovative Practices with Type of Retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	206.227 <sup>a</sup>	5	.000
Likelihood Ratio	160.429	5	.000
N of Valid Cases	250		

**Table 7.47: Chi-Square Tests for Welcoming rules and regulations with Key attribute of innovative practices**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.339 <sup>a</sup>	10	.013
Likelihood Ratio	25.319	10	.005
Linear-by-Linear Association	1.148	1	.284
N of Valid Cases	250		

**Table 7.48: Chi-Square Tests for BSTI to encourage fair competition with Common technique of adulteration**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	27.963 <sup>a</sup>	15	.022
Likelihood Ratio	28.714	15	.018
Linear-by-Linear Association	.197	1	.657
N of Valid Cases	250		

**Table 7.49: Chi-Square Tests for Modernisation of regulation and penalty with Online business approaches**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	52.676 <sup>a</sup>	12	.000
Likelihood Ratio	25.734	12	.012
Linear-by-Linear Association	1.364	1	.243
N of Valid Cases	250		

**Table 6.50: Chi-Square Tests for Entrepreneurs need to be aware of GP with Ethical practice**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	56.554 <sup>a</sup>	24	.000
Likelihood Ratio	25.532	24	.377
Linear-by-Linear Association	2.152	1	.142
N of Valid Cases	250		

**Table 7.51: Chi-Square Tests for Uniqueness of Business with Age**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.731 <sup>a</sup>	10	.023
Likelihood Ratio	22.796	10	.012
Linear-by-Linear Association	2.481	1	.115
N of Valid Cases	250		

**Table 7.52: Chi-Square Tests for Uniqueness of Business with Type of Retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.957 <sup>a</sup>	5	.035
Likelihood Ratio	13.302	5	.021
N of Valid Cases	250		

**Table 7.53: Chi-Square Tests for Key Attributes of Ethical Practices with Type of Retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	219.556 <sup>a</sup>	6	.000
Likelihood Ratio	173.263	6	.000
N of Valid Cases	250		

**Table 7.54: Chi-Square Tests for Key Attributes of Innovative Practices with Age**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.672 <sup>a</sup>	10	.024
Likelihood Ratio	18.552	10	.046
Linear-by-Linear Association	.767	1	.381
N of Valid Cases	250		

**Table 7.55: Chi-Square Tests for Online Business Approach with Size of Business**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.604 <sup>a</sup>	6	.001
Likelihood Ratio	14.841	6	.022
N of Valid Cases	250		

**Table 7.56: Chi-Square Tests for Common Technique of Adulteration with Type of Retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	20.066 <sup>a</sup>	5	.001
Likelihood Ratio	17.779	5	.003
N of Valid Cases	250		

**Table 7.57: Chi-Square Tests for Licence to Operate with Type of Retailer**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.192 <sup>a</sup>	4	.381
Likelihood Ratio	4.561	4	.335
N of Valid Cases	250		

**Table 7.58: Chi-Square Tests for Awareness of Ingredients with Clear and Concise Information**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.627 <sup>a</sup>	8	.471
Likelihood Ratio	9.820	8	.278
N of Valid Cases	250		

**Table 7.59: Chi-Square Tests for Regulatory Structure should be Effective with Age**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.668 <sup>a</sup>	8	.004
Likelihood Ratio	23.199	8	.003
Linear-by-Linear Association	1.021	1	.312
N of Valid Cases	250		

**Table 7.60: Chi-Square Tests for Food should be Standard Tested with Age**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	5.897 <sup>a</sup>	8	.659
Likelihood Ratio	6.571	8	.584
Linear-by-Linear Association	.060	1	.806
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.521 <sup>a</sup>	4	.475
Likelihood Ratio	4.014	4	.404
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.860 <sup>a</sup>	12	.002
Likelihood Ratio	31.068	12	.002
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.328 <sup>a</sup>	12	.004
Likelihood Ratio	37.232	12	.000
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.339 <sup>a</sup>	10	.013
Likelihood Ratio	25.319	10	.005
Linear-by-Linear Association	1.148	1	.284
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	95.197 <sup>a</sup>	20	.000
Likelihood Ratio	25.346	20	.189
Linear-by-Linear Association	2.374	1	.123
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	55.850 <sup>a</sup>	20	.000
Likelihood Ratio	25.578	20	.180
Linear-by-Linear Association	.285	1	.593
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	25.036 <sup>a</sup>	15	.049
Likelihood Ratio	27.095	15	.028
Linear-by-Linear Association	.329	1	.566
N of Valid Cases	250		

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	55.692 <sup>a</sup>	24	.000
Likelihood Ratio	23.895	24	.468
Linear-by-Linear Association	5.675	1	.017
N of Valid Cases	250		

**Table 7.68: Chi-Square Tests for Modernisation of regulation and penalty with Online business approaches**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	52.676 <sup>a</sup>	12	.000
Likelihood Ratio	25.734	12	.012
Linear-by-Linear Association	1.364	1	.243
N of Valid Cases	250		

**Table 7.69: Chi-Square Tests for Entrepreneurs need to be aware of Good Practices (GP) with Innovative approach**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	141.483 <sup>a</sup>	20	.000
Likelihood Ratio	41.227	20	.003
Linear-by-Linear Association	.059	1	.808
N of Valid Cases	250		

**Table 7.70: Chi-Square Tests for Entrepreneurs need to be aware of GP with Ethical practice**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	56.554 <sup>a</sup>	24	.000
Likelihood Ratio	25.532	24	.377
Linear-by-Linear Association	2.152	1	.142
N of Valid Cases	250		

**Table 7.73: Chi-Square Tests for Children need to be aware of GP with Innovative approach**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	60.190 <sup>a</sup>	15	.000
Likelihood Ratio	33.711	15	.004
Linear-by-Linear Association	4.629	1	.031
N of Valid Cases	250		

**Table 7.71: Chi-Square Tests for I am aware of GP with Innovative approach**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.545 <sup>a</sup>	15	.014
Likelihood Ratio	27.978	15	.022
Linear-by-Linear Association	.000	1	.983
N of Valid Cases	250		

**Table 7.74: Chi-Square Tests for Children need to be aware of GP with Online business approach**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.989 <sup>a</sup>	9	.006
Likelihood Ratio	27.353	9	.001
Linear-by-Linear Association	.234	1	.628
N of Valid Cases	250		

**Table 7.72: Chi-Square Tests for Parents need to be aware of GP with Ethical practice**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	41.586 <sup>a</sup>	18	.001
Likelihood Ratio	38.438	18	.003
Linear-by-Linear Association	.883	1	.347
N of Valid Cases	250		

**Table 7.75: Chi-Square Tests for Licence needed with Online business approaches**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.723 <sup>a</sup>	12	.003
Likelihood Ratio	21.889	12	.039
Linear-by-Linear Association	.868	1	.351
N of Valid Cases	250		

## Appendix 5: Commentary, screenshots, figures and tables

### 5.1 Commentary: Calculating sample size for quantitative phase

#### Population size

Population size is the approximate number of people the researcher can choose the sample from. For instance, if a researcher would like to conduct a research study on the whole population of a country, then the sample size will be the population size of that country (Martin, 2019; Raosoft, 2004).

Though from government statistics there is no specific number for entrepreneurs operating in the street food industry available, the researcher considers the assumed numbers published through academic literature as the baseline population size. In this case the researcher adopted 300,000 (largest number in academic literature) as the population size of this research.

#### Confidence level

Confidence level is the statistical probability that the value of a parameter falls within a specified range of values. As a result, a specific confidence level (for instance 70 per cent) means the researcher can be 70 per cent certain that the results contain the true mean average of the selected population. In research, researchers commonly use confidence levels between 90 and 99 per cent. Moreover, a higher confidence level indicates a higher probability that results of the research are accurate, whereas increasing the confidence level can dramatically increase the required sample size. Hence, it is important to find a balance between an achievable research goal and the confidence level is crucial (Martin, 2019; Raosoft, 2004).

This research worked within sensitive time constraints and had to carefully consider what was an achievable goal (sample size) while satisfying an acceptable confidence level of results to meet the validity and reliability of the research. After careful consideration, the researcher set a 90 per cent confidence level from the results, with agreement of the data collector team.

#### Margin of Error

The margin of error is the amount of error a research project can or would tolerate. In more academic words, maximum acceptable difference in results between the population and sample is considered as the margin of error. For instance, if a researcher asks 1,000 people if they take 'home-cooked meals at breakfast daily' and 65 per cent of respondents answer yes, at a margin of error of  $\pm 5$  per cent the results would indicate that, of the total population, between 61.75 and 68.25 per cent would answer in the same way. Furthermore, a smaller margin of error would be representative of the total population and so the results will be. However, minimising or decreasing the margin of error will also result in a sharp increase in sample size. It is strongly recommended that the researcher considers a margin of error between 5 and 10 per cent (Martin, 2019; Raosoft, 2004).

This research uses multiple rates for margin of error before finalising the rate because the researcher wants to accept a reasonable, achievable yet valid and reliable sample size to work with. After careful consideration this research accepts a 5.2 per cent margin of error rate for the phase two data collection for the research.

This research reviews similar research conducted for similar population sizes in a similar field of interest. Hence, the researcher considers sample size of those studies in the selection of sample size

process to maintain a representative sample size for the research field. In the reviewed research, 241 respondents was found to be the highest sample size selected and 32 to be the smallest. Using the population size, confidence level and margin of error in the sample size calculator, the researcher was advised to select a sample size of 250, which represents the other similar research in the field of study appropriately. Hence a sample size of 250 was set for this research.

## 5.2 Concept map

Objectives	Theme 1		Theme 2	Objectives
1 + 3	Entrepreneurship <ul style="list-style-type: none"> <li>• Opportunity of new firm creation</li> <li>• Institutions</li> <li>• Existing firms</li> </ul>	Context 1: Social values	Entrepreneurial behaviour <ul style="list-style-type: none"> <li>• Productive: Profit + Ethics</li> <li>• Unproductive: Profit + Non-ethical consideration</li> <li>• Destructive: Profit + Intentional unethical behaviour</li> </ul>	1 + 2
Context 2: Developing economy of Bangladesh				
Objectives	Theme 4		Theme 3	Objectives
2 + 4	Innovation <ul style="list-style-type: none"> <li>• New product/service/new organisational methods</li> </ul>	Context 3: Start-ups & Innovative existing firms (<10 years old)	<ul style="list-style-type: none"> <li>• Ethics</li> </ul>	2 + 3 + 4

Figure 5.0: Concept map

### 5.3 Screenshots, figures and tables

Phase 1 Qualitative NVivo 12\_v3.nvp - NVivo 12 Plus

Name	Files	References	Modified On	Modified By	Classification
01. Focus Group Interview 1		1	28/02/2019 14:15	RH	Focus Group
02. Focus Group Interview 2		1	28/02/2019 14:15	RH	Focus Group
03. Individual Interview 1		1	28/02/2019 14:16	RH	NGO
04. Individual Interview 2		1	28/02/2019 14:16	RH	Academic
05. Individual Interview 3		1	28/02/2019 14:20	RH	NGO
06. Individual Interview 4		1	28/02/2019 14:17	RH	Current Researcher
07. Individual Interview 5		1	28/02/2019 14:18	RH	Current Researcher
08. Individual Interview 6		1	28/02/2019 14:18	RH	NGO
09. Individual Interview 7		1	28/02/2019 14:18	RH	Academic
10. Individual Interview 8		1	28/02/2019 14:19	RH	Govt Official
11. Individual Interview 9		1	28/02/2019 14:19	RH	Govt Official
12. Individual Interview 10		1	28/02/2019 14:19	RH	Govt Official
13. Individual Interview 11		1	28/02/2019 14:19	RH	Academic

Figure 5.1: Screenshot: Semi-structured interview and their classifications

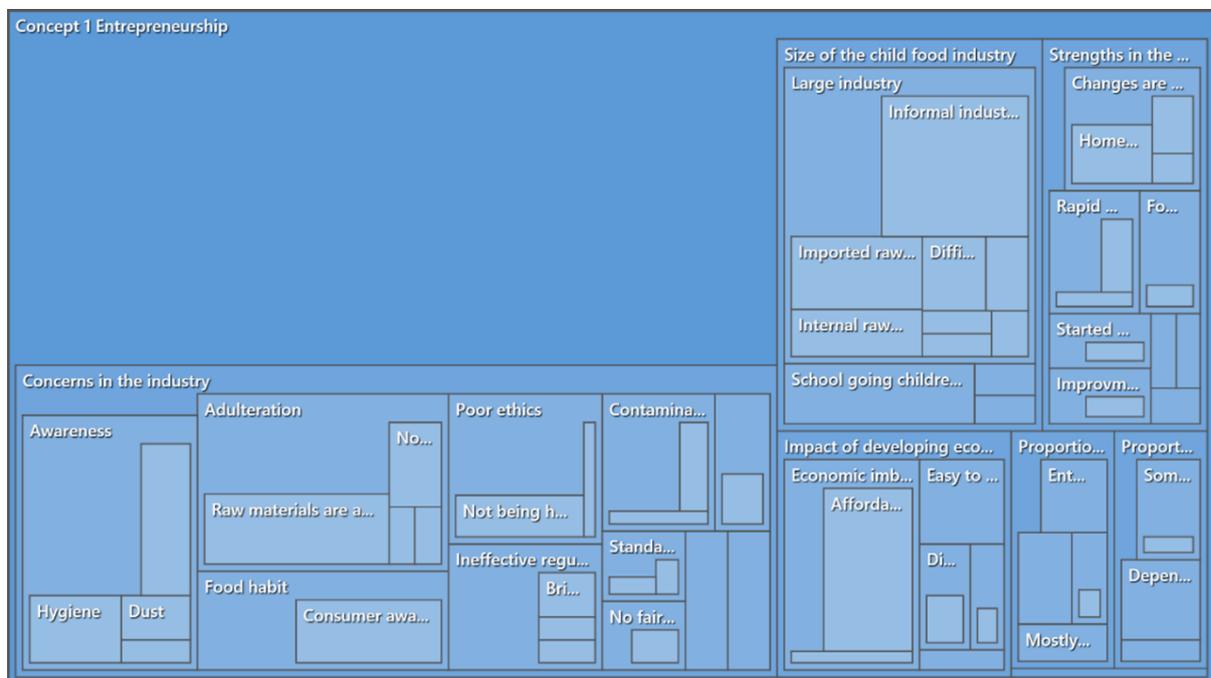


Figure 5.2: Response map: Theme 1 (entrepreneurship)

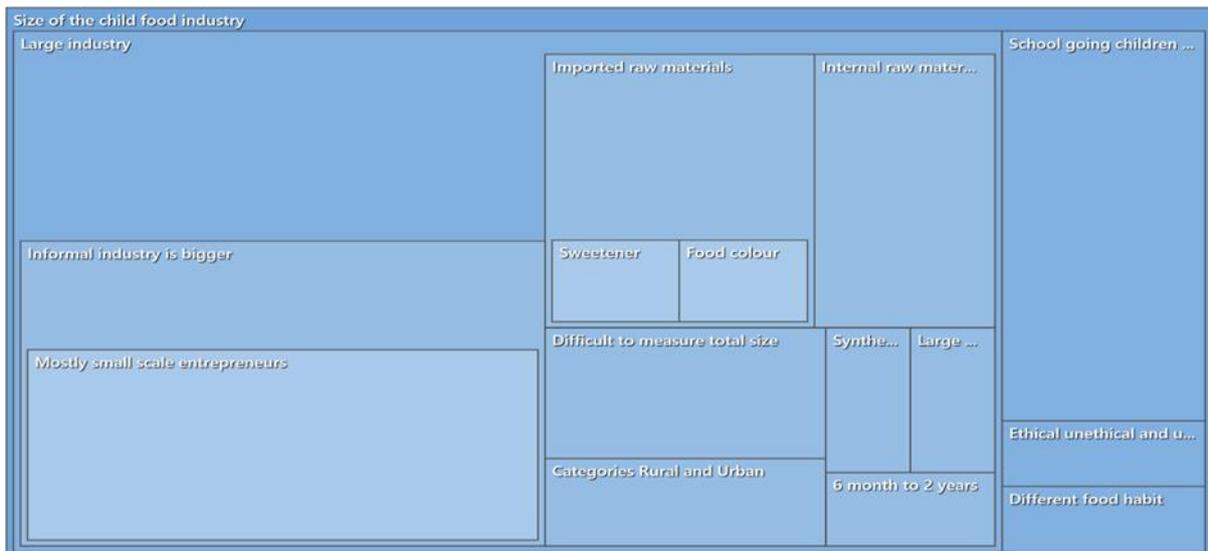


Figure 5.3: Response map: Size of the industry



Figure 5.4: Response map: Strengths in the industry

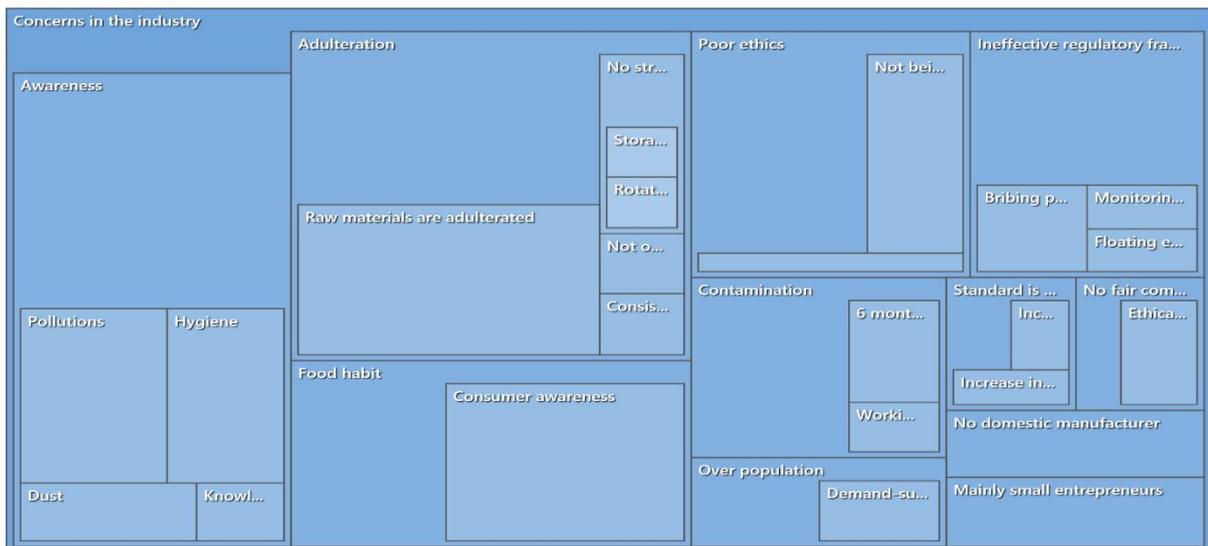


Figure 5.5: Response map: Concerns in the industry

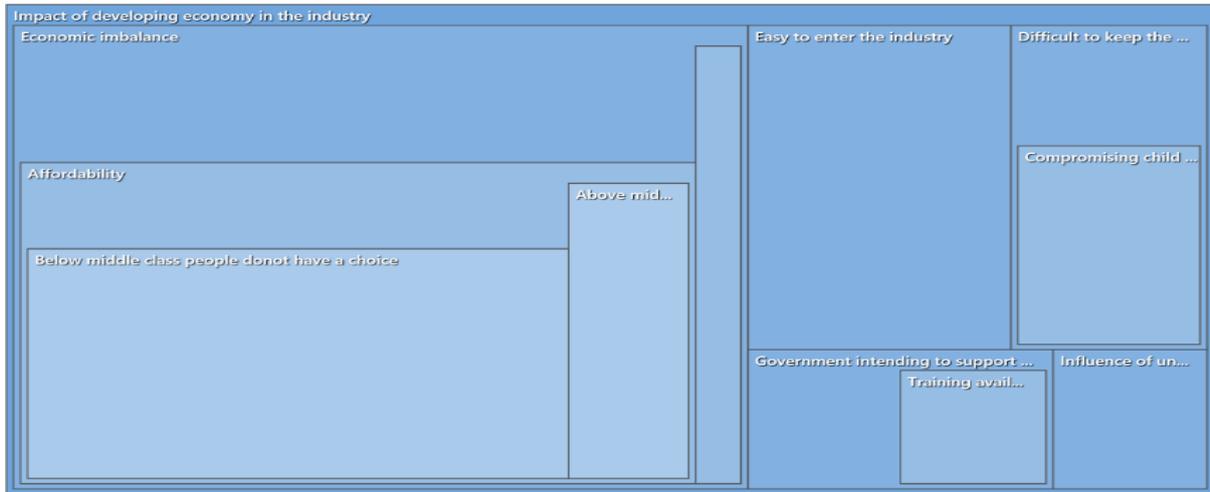


Figure 5.6: Response map: Impact of developing economy



Figure 5.7: Theme 2 (entrepreneurial behaviour)

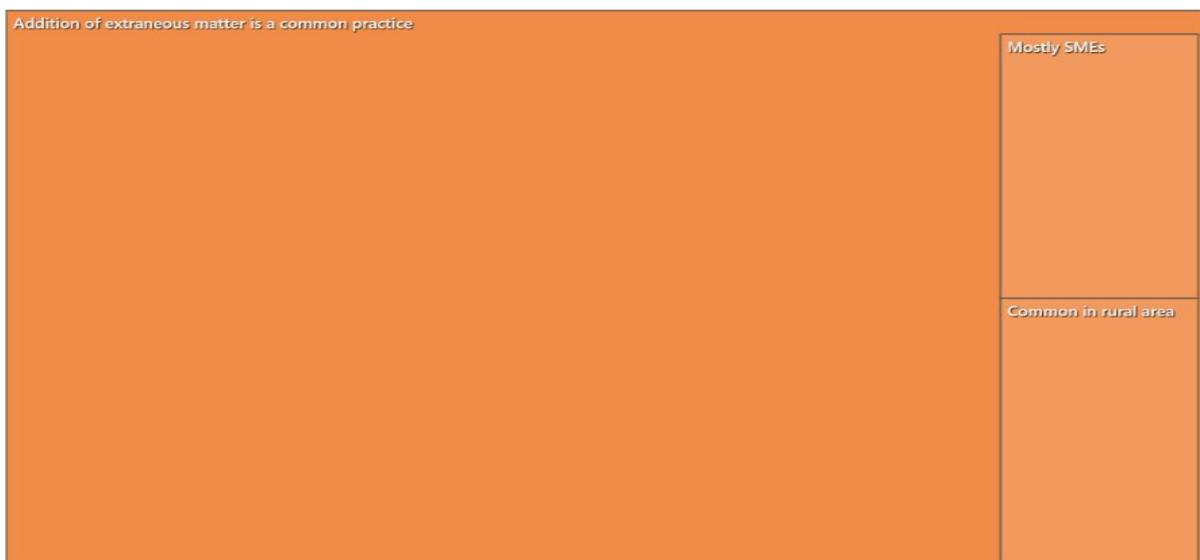


Figure 5.8: Response map: Addition of extraneous matter is a common practice



Figure 5.9: Response map: Use of prohibited dyes and preservatives is a common practice

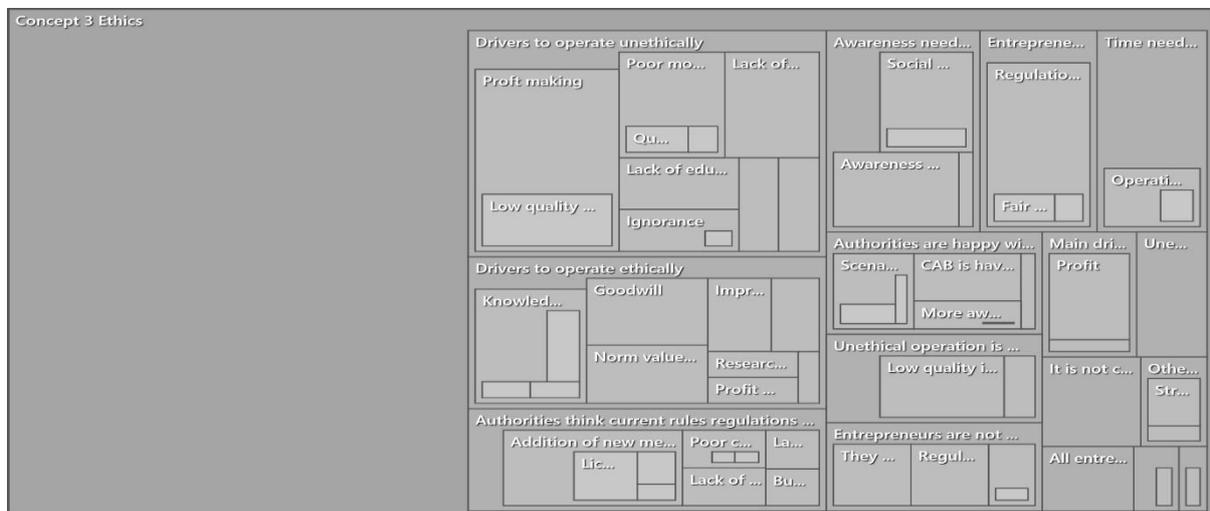


Figure 5.10: Response map: Theme 3 (ethics)



Figure 5.11: Response map: Drivers to operate ethically

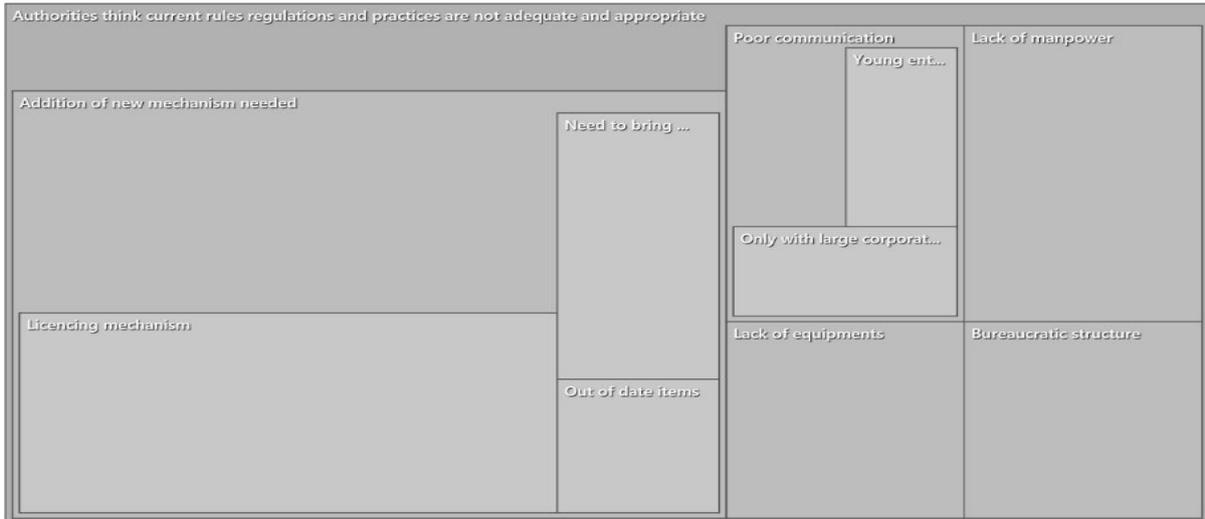


Figure 5.12: Response map: Authorities find regulations are not adequate

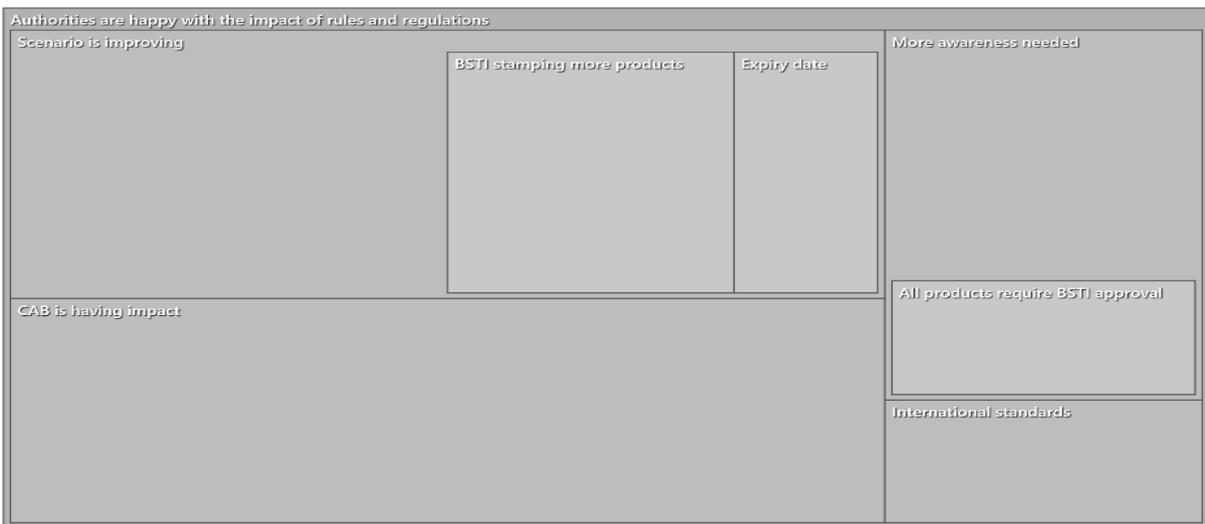


Figure 5.13: Response map: Authorities are happy with rules and regulations

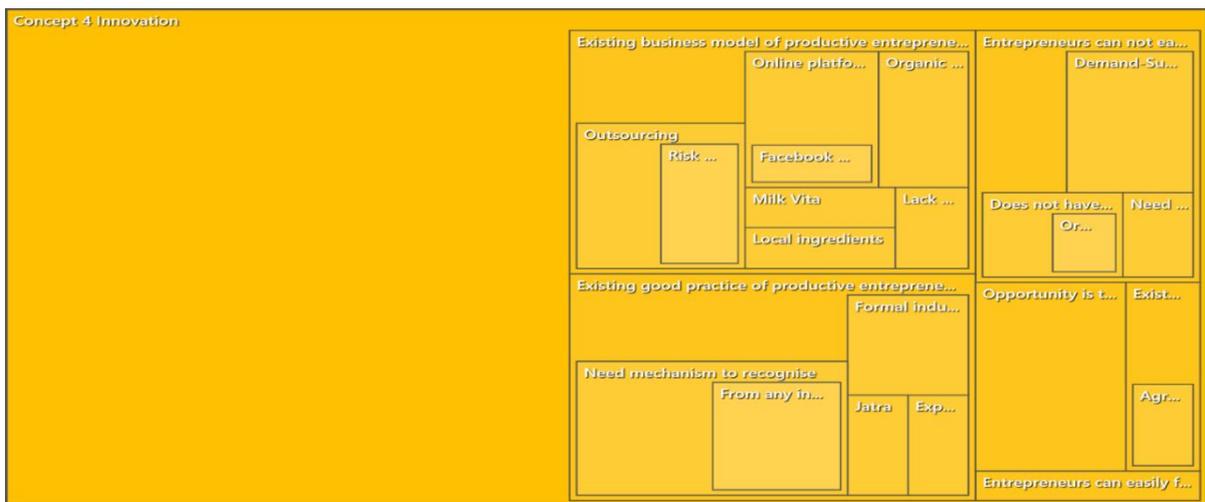


Figure 5.14: Response map: Theme 4 (innovation)

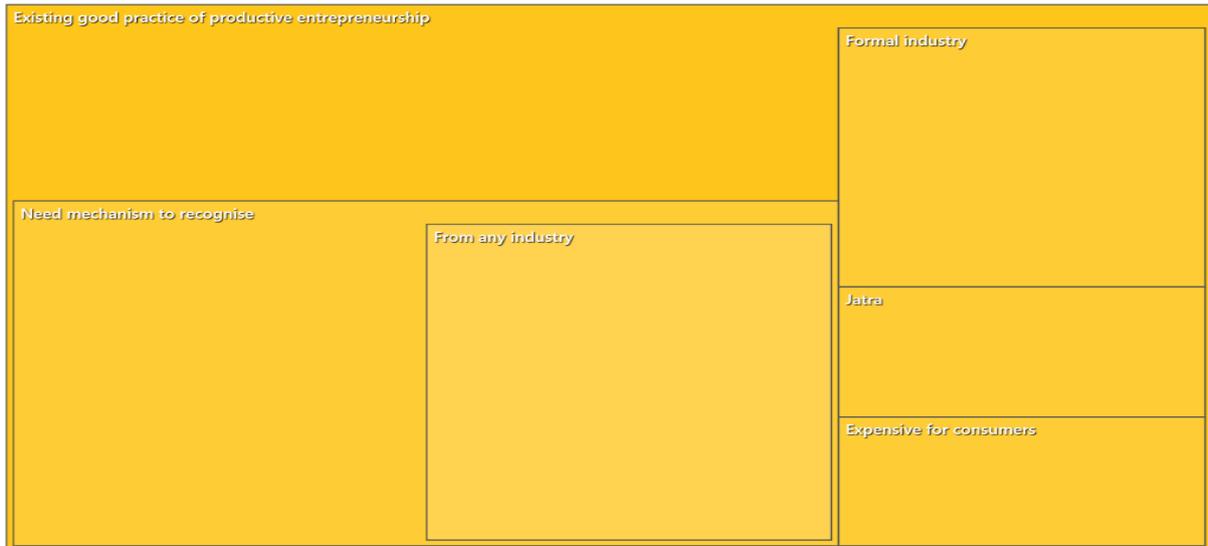


Figure 5.15: Response map: Existing good practice

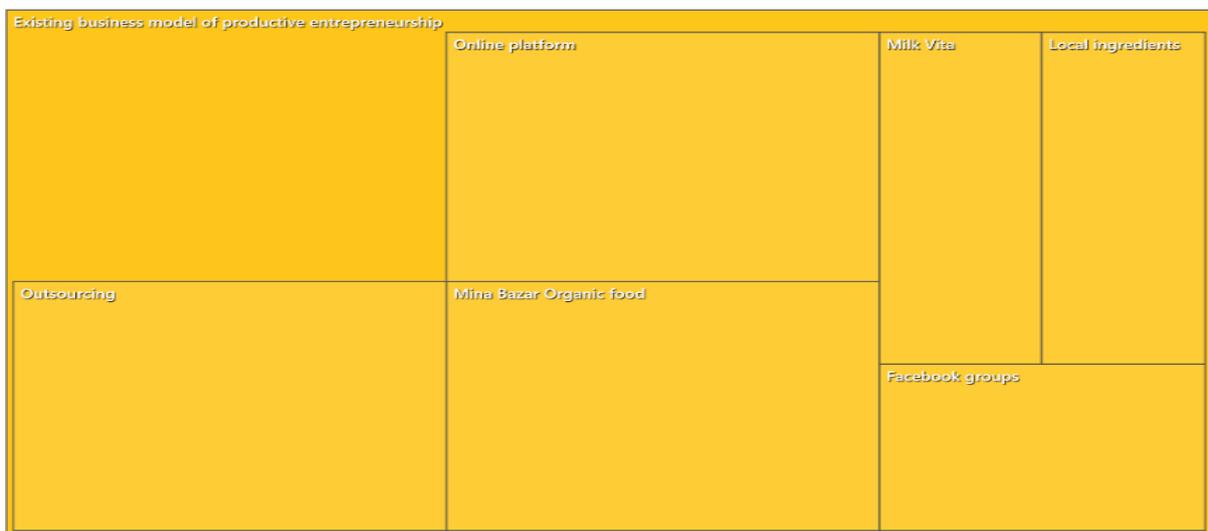


Figure 5.16: Response map: Existing business model

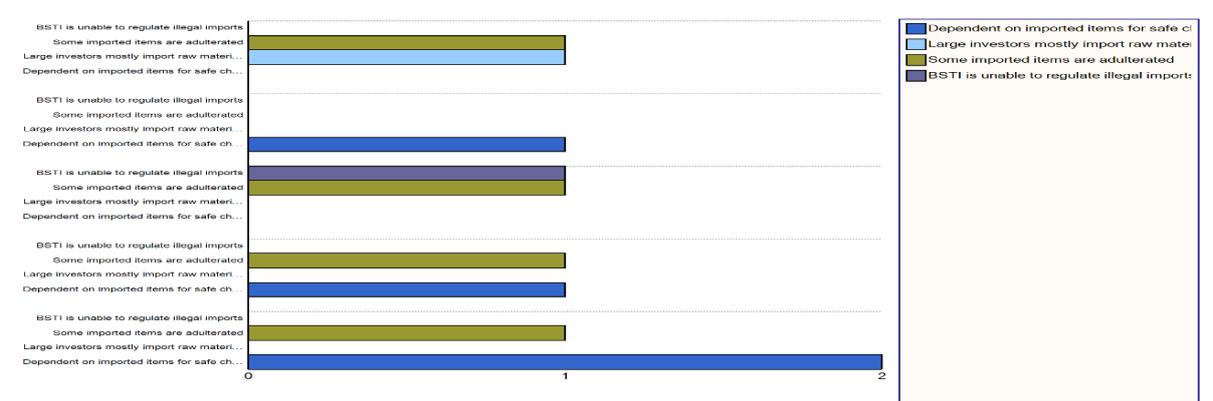


Figure 5.17: Imported items in industry selling street food to children

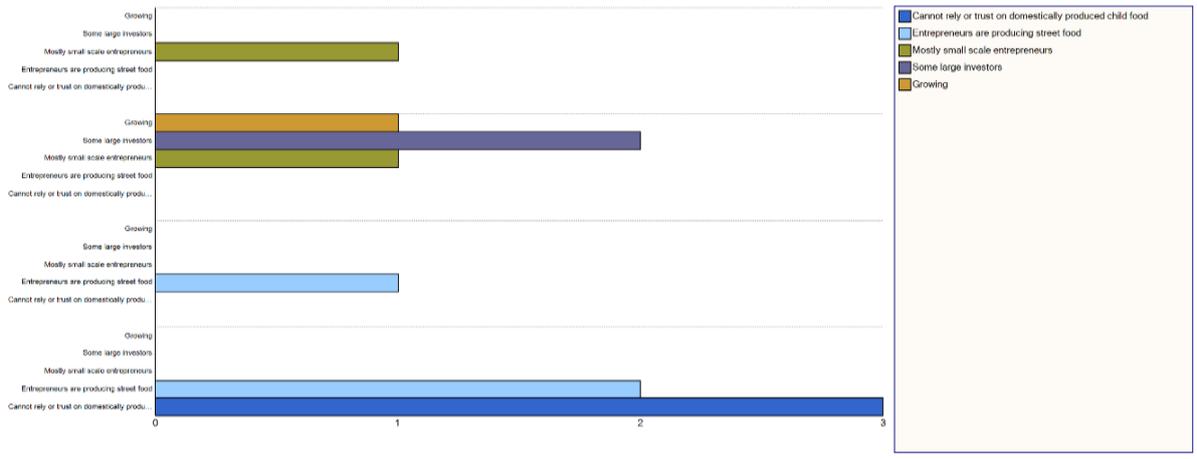


Figure 5.18: Domestic items in the industry selling street food to children

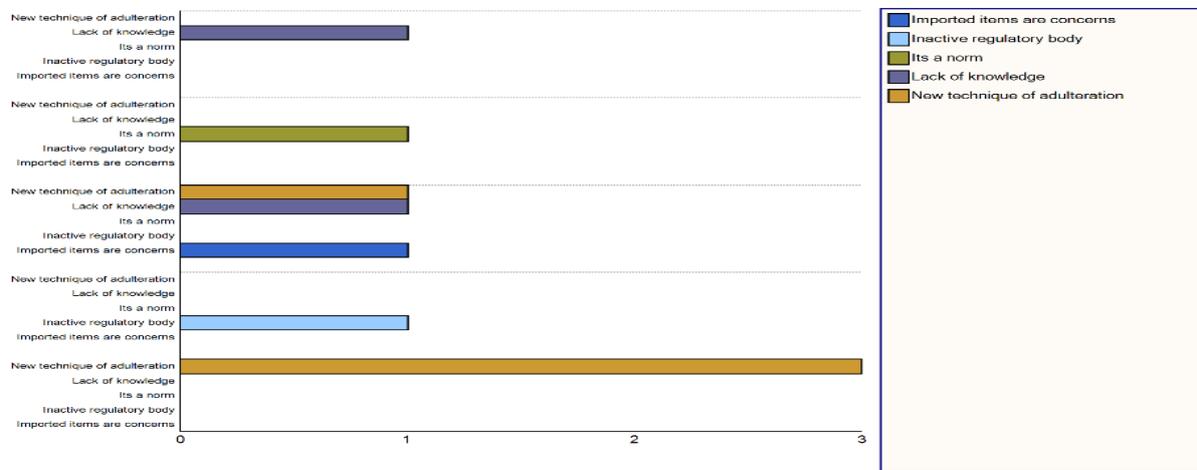


Figure 5.19: Rate of addition of extraneous matter has increased

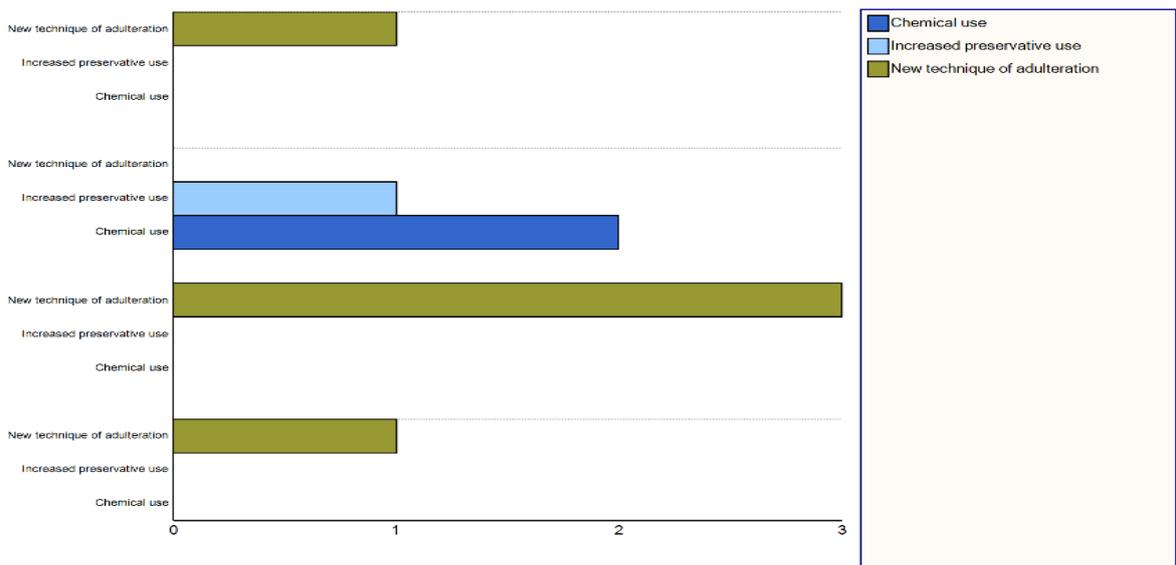


Figure 5.20: Rate of use of prohibited dyes and preservatives has increased

## 5.4 Tables

Context	Face-to-face mode	Telephone or remote mode
Time and financial costs	Usually intensive; travel may add to costs	Can be less time intensive than F2F; lower costs (no travel)
Geographical distribution	Often limited geographically to local area	National and international access possible and easier
Sensitive or controversial topics	May be difficult in F2F; potential to be embarrassing or awkward	May be less awkward than F2F
Technology problems	Less likely to have problems, except with recording device	Calls can be dropped; possible recording problems
Interviewer safety	Can be endangered depending upon location and time of meeting	Low danger; interviews can be made from office, home, or other location as appropriate
Note taking	Can be obtrusive; can capture non-verbal language and cues	Can be done unobtrusively; may present logistical problems juggling multiple items
Nonverbal language and cues	Usually very rich; can include dress, body language, mannerisms, etc.; more data to be interpreted; can be misinterpreted	Most types unavailable; can note pauses, hesitations, etc.; less information, but less potential bias and misinterpretation

Context	Face-to-face mode	Telephone or remote mode
Scheduling	Participant may feel pressure to be available; may have lower dropout rate	Easier to reschedule; less social pressure; easier to avoid time conflicts; easier to cancel
Respondent anonymity / confidentiality	Difficult to hide identity from interviewer; anonymity dependent on interviewer integrity and data protection; can decrease disclosure	Perception of higher anonymity; can lead to more disclosure
Privacy / invasiveness	Can be invasive to participant (often in their home/office); F2F can be less invasive than technology; cannot hide non-verbal language	Can either reduce or increase invasiveness and surveillance fears
Stigmatised / marginalised groups	May be more or less difficult for marginalised individuals, depending on social pressures and cues	By increasing distance from interviewer, may improve responses from marginalised individuals
Sensitive or controversial topics	May be uncomfortable or embarrassing; may conform to social expectations; may under-report	May ease discomfort or awkwardness; may improve accuracy of reporting
Respondent empowerment	Can see and respond to interviewer; social pressure (potential loss of face) more evident in F2F	More control; easier to reschedule; less chance of loss of face