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**Enhancing Inter functional coordination and marketing performance: utilization of the  
motivation/ability/opportunity framework**

**Kholoud Mohsen**

University of Essex

Address for correspondence

Kholoud Mohsen

Essex Business School  
University of Essex  
Southend Campus  
10 Elmer Approach  
Southend-on-Sea  
Essex, SS1 1LW  
United Kingdom

E-mail: [kmohsen@essex.ac.uk](mailto:kmohsen@essex.ac.uk)

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Authors: Kholoud Mohsen, Teck Yong Eng

***Abstract:***

This paper integrates a large literature on intra-organisational relationships with the aim to understand how to enhance coordination between different functional units inside an organisation and to empirically examine the impact of inter functional coordination on marketing performance. By drawing on the Motivation/Ability/Opportunity (MAO) theoretical framework, this research attempts to examine factors to enhance employees' motivation/ability/opportunity to coordinate on improving inter functional coordination. The research also empirically examined the impact of inter functional coordination on marketing performance in terms of adaptiveness, effectiveness, efficiency and creativity of marketing programmes. The research conceptual model was tested with data collected from 274 structured surveys in medium to large Egyptian firms. Regression analysis was employed as a tool for testing the research hypotheses. The research findings suggest that the use of cross functional teams, resource dependency, joint reward systems, management support, positively affect the level of inter functional coordination. The research also showed that some factors, for example employees' interpersonal skills, might hinder coordination between functional units and these issues should be resolved in order to establish an effective inter functional coordination. The research provides empirical evidence of the direct positive impact of inter functional coordination on marketing performance.

***Introduction:***

There is no doubt that inter functional coordination has been identified in many literature streams as a key factor for improving performance. Market orientation, as an operationalisation of the marketing concept, has received notable attention. For more than two decades researchers and practitioners have realized the significance of firms' market orientation for building strategic plans that will ensure the company's competitive advantages

(Kohli and Jaworski 1990; Narver and Slater 1990; Slater and Narver 1994, Hunt and Morgan 1995). Market orientation literature suggest that for a firm to be market oriented and to strive to satisfy customers, employees at all levels and in every functional unit need to be committed in providing superior values for customers. Therefore, it is essential to understand what drives employees to coordinate with other functional units to meet firms' objectives. The cultural-behavioural perspective of market orientation identifies inter functional coordination as a dimension of a firm's market orientation (Narver and Slater 1990).

Coordination is an important issue for organisations as modern economy is characterised by a high market and technology turbulence and an intense competition due to globalisation. Due to specialisation of labours and the division of organisations into functional units, employees are usually grouped according to the separate tasks they perform. This creates coordination difficulties as functional units may be geographically and temporally separated, but still interdependent for performing specific tasks (Galbraith, 1994). Coordination problems might also occur even when functions are closely located. Therefore, firms are constantly concerned with stimulating, facilitating, and maintaining coordination between the various functional areas (Song et al. 1997).

Firms usually are unable to control external environments manifested in rapid change of customer's needs, rivals, culture, and economic conditions. The only control firms have is on their internal environment; consequently, firms need to consolidate their internal environment to be able to tailor strategies that could fit the external environment. This internal consolidation will not be achieved without the coordination of the different functional units inside the organisation to achieve firm's objectives. Coordination between functions is crucial for the development of profitable new products and services to meet customers' needs (Walker et al., 2006). As Galbraith and Nathanson (1978) and Mintzberg (1979) argue a critical problem for marketing managers is to create and work within

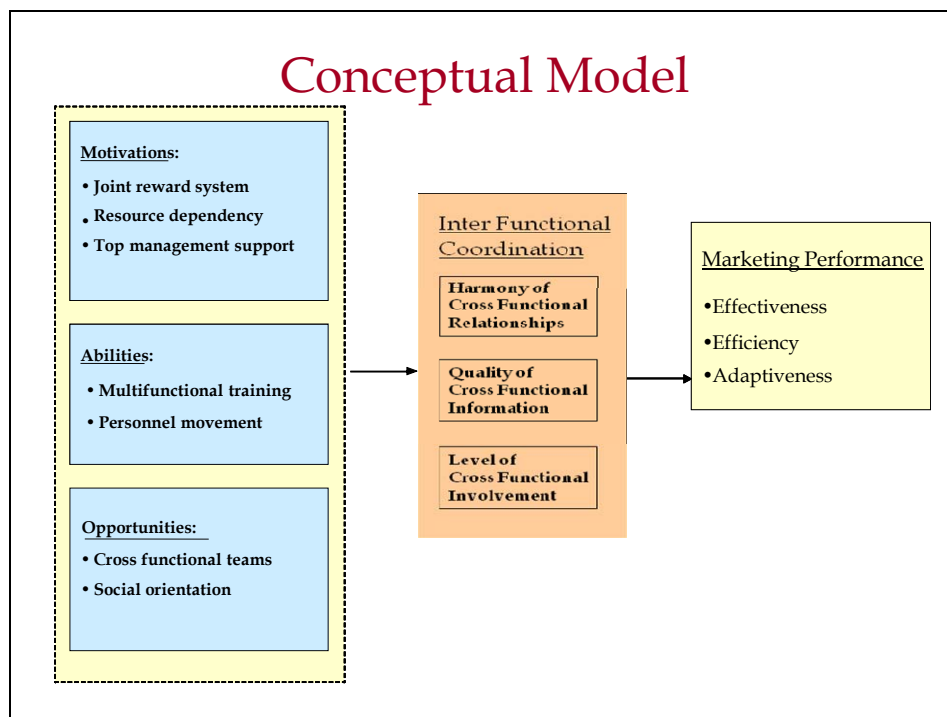
organisational structures that effectively coordinate the new product development process, facilitate sharing of information and other scarce resources across functional areas, and provide mechanisms for decision making and conflict resolution. Galbraith (1977) believes that without proper coordination of activities, performance is affected and organisations can "disintegrate into disorder" (p.5).

Given the significance of enhancing coordination between functional units to improve marketing performance, this research sought to provide a different and promising conceptual model in examining how coordination between functional units could be enhanced. The research posits that coordination is a desired behaviour which firms seek to foster; therefore, an identification of its determinants should rely on employees' psychological drivers influencing the attainment of coordination behaviour. The motivation/ability/opportunity (MAO) theory, which argues that for certain behaviour to be achieved, motivation, ability and opportunity should be addressed and encouraged, is considered a promising model to investigate and categorise factors to enhance inter functional coordination. The MAO framework has been applied in different literature streams but never into the context of intra-firm relationships. Therefore, this research argues that the internal tactics that drive inter functional coordination should include policies to build employees' abilities, motivations, and opportunities to involve in coordination activities.

### **Conceptual Model and Research Hypotheses**

Building on the basic premise of MAO theory a conceptual model is developed to categorize different factors under motivation/ ability/ opportunity framework and examine their impact on the level of inter functional coordination inside the organisation. The study hypothesizes that factors which increase employees' motivation to coordinate, their ability to coordinate, and their opportunity to coordinate will determine the level of inter functional coordination which ultimately impact marketing performance. Inter functional coordination is

conceptualised as three dimensions manifested in harmony of cross functional relationships, quality of cross functional information, and level of cross functional involvement. The dimensions examined for marketing performance in this research are: adaptiveness, effectiveness, and efficiency. The research conceptual model and theoretical framework underpinning the hypothesised relationships is presented in the figure 1.



***Enhancing employee’s motivation to coordinate:***

Motivation is commonly viewed as a force that directs individuals toward goals (McClelland 1987) and defined as the willingness or desire to behave. Rothschild (1999) suggests that individuals are motivated to behave when they recognize that their ‘self interest’ will be served. Based on the Motivation/Ability/Opportunity theory, motivation incorporates readiness, willingness, interest, and desire to engage in information processing (MacInnis et

al., 1991). Adapting this definition to our research context, motivation is defined as employee's desire or readiness to coordinate with employees in other functional units. Employees with high motivation will be willing to allocate the necessary information and resources to coordinate. Hoyer and MacInnis (1997) propose that personal relevance, goals and needs, perceived risk, and consistency impact motivation. In this research motivation to coordinate is hypothesised to be improved by: resource dependency, top management support, joint reward systems. The next section will provide literature supporting the development of hypotheses of the effect of the above mentioned constructs on inter functional coordination.

Resource dependency theory suggests that environmental and marketplace uncertainties necessitate the coordination of different functional units to utilise their knowledge and skills to resolve these uncertainties (Pfeffer and Salancik 1978). Resource dependency at the strategic business unit level of analysis is defined as the extent to which employees of different functional units are dependent upon each other to perform their individual jobs (Pfeffer and Salancik 1978). Extant researches suggest a positive relationship between resource dependency and coordination inside organisations. For example, Thompson (1967) argued that how functional units depend upon each other's outputs significantly affects coordination and that greater interdependence entails a greater cooperation effort. Moreover, Pfeffer and Salancik, (1978) in line with Williamson (1975) have argued that resource dependency and uncertainty will affect the level of collaboration. Olson et al. (1995) in line with Van de Ven et al. (1976) found that there is an increase of the use of coordination mechanisms when organisational units are highly dependent upon each other's resources. Therefore, high levels of interdependence can lead to more frequent interactions between marketing and other functions (Olson et al. 1995; Ruekert and Walker 1987). In support of

the previous mentioned studies and in line with Walton and Dutton (1969) this research suggests that resource dependency provides an incentive for coordination and will increase inter functional coordination. Therefore, we can hypothesize that:

*H1a: the greater the resource dependency between functional units, the higher the level of harmony of cross-functional relationships*

*H1b: the greater the resource dependency between functional units, the higher the level of quality of cross-functional information*

*H1c: the greater the resource dependency between functional units, the higher the level of cross-functional involvement.*

Scholars in management literature have revealed the positive influence of management support on different organisation behaviours. For instance, Van de Ven (1986) found top management support to be vital to improve innovation. Moreover, senior management support is found to be important for the success of cross-functional integration among marketing and R&D (e.g. Gupta et al., 1986, Song et al., 1997; Souder 1987). Ayers et al., (1997) state that according to control theory, management support makes any process a “formal control mechanism” and is a key for its successful deployment and practice.

Top management support for coordination encourages cooperative efforts to achieve common goals and it measures the degree to which management provides resources and delegates authority to support inter functional coordination efforts (Song and Parry, 1997). Integration literature examining dyadic functional relationship has provided evidence of the positive impact of top management support on integration. For example, Ruekert and Walker (1987) in line with Gupta et al. (1986) have shown that when senior management formally express the need for cross-functional integration, higher level of integration is achieved. Furthermore, Brown and Eisenhardt (1995) argue that management support promotes the

success of integration by providing necessary resources and by signifying that cooperation is highly valued by the management. Kerr (1975) proposes that employees tend to focus on activities which they believe will be valued and rewarded by management. Accordingly, this research anticipates that employees will be motivated to coordinate, if they believe that top managers support coordination and that such motivation will increase inter functional coordination thus:

*H2a: the greater top management support for coordination, the higher the level of harmony of cross-functional Relationships.*

*H2b: the greater top management support for coordination, the higher the level of quality of cross-functional information.*

*H2c: the greater top management support for coordination, the higher the level of quality of cross-functional information.*

Beer et al. (1988) argue that rewards both financial and non financial, send a powerful message to employees of an organisation with regards to what kind of behaviours and attitudes management seeks from its employees. Reward systems are believed to be one of the most effective and influential tools available to the organisation intended to motivate certain performance. Beer and Walton (1990) suggest that to increase employees motivation, employees must believe that their effective performance will lead to achieving the organisation's standards of performance and that they will be attractively rewarded.

Good and Schultz (1997) argue that evaluation and reward systems are mechanisms that a firm can use to stimulate and foster cooperation between functional areas since adequate incentives can bring together disparate individuals to achieve common goals. Conversely, short-sighted evaluation and reward systems can create disincentives for coordination. Therefore, compensation researchers (e.g. Coombs and Gomez-Mejia 1991)



and marketing academics (e.g. Hauser et al. 1994) have suggested that overall organisational goal achievement and integration should be incorporated in the firm's reward systems

McCann and Galbraith (1981) define joint reward systems as rewarding employees for performance outcomes that benefit the organisation as a whole rather than individuals or functional units. They argue that integrated goals that bind a portion of a manager's compensation to organisation-wide outcome are expected to increase inter functional interactions because managers must join forces to achieve their objectives. Organisation scholars believe that joint reward systems increase perceptions of interdependence which motivate the development of common goals and facilitates responsiveness and coordination (e.g. Walton and Dutton, 1969; Gomez and Balkin 1989).

In marketing literature, many scholars have highlighted and examined the prospects of using joint reward systems as an incentive method to stimulate and improve coordination and integration of marketing with other business functions (e.g., Hutt 1995; Crittenden 1992; Berry and Parasuraman 1991; Ruekert and Walker 1987a; Wind and Robertson 1983; Wind 1981; Walton and Dutton 1969, Chimhanzi 2004). For example, in integrating marketing and R&D, Gupta and Wilemon (1987) in line with Souder (1988) found that the use of joint reward systems enhanced cooperation and effectiveness of integration of both functions. Furthermore, empirical researches have shown that organisational joint reward systems impact new product performance both directly and indirectly through cross-functional cooperation (e.g. Griffin and Hauser 1993; Thamhain 1990). Moreover, Gupta et al. (1986) in line with Shapiro (1977) provide evidence suggesting that the establishment of formal reward systems favouring cross-functional cooperation have positive effects on organisational processes and discouraging conflict.

The organisational behaviour literature overwhelmingly suggests that organisational members inclined to respond as desired when incentives are linked to targets ( Lawler 1981).

Ellinger (2000) argues that utilising a firm's evaluation and reward system can have a major impact on cross-functional collaboration. The underlying premises of most previous mentioned studies is that when a reward system encourages employees to aim for broader goals rather than myopically focusing on meeting departmental objectives, the employees may identify more with the organisation and may be more prepared to collaborate with other functional units. Therefore, joint reward systems are deemed to be effective in achieving inter functional coordination as it reflects the combined rather than the separate performance of each department in achieving super ordinate goals (Coombs and Gomez-Mejia 1991; Crittenden 1992; Walton and Dutton 1969). Therefore, this research hypothesizes that:

*H3a: the greater the use of joint reward system, the higher the level of harmony of cross-functional Relationships.*

*H3b: the greater the use of joint reward system, the higher the level of quality of cross-functional information.*

*H3c: the greater the use of joint reward system, the higher the level of cross-functional involvement.*

### ***Enhancing employee's ability to coordinate:***

In MacInnis et al. (1991) MAO model, ability refers to consumers' skills or proficiencies in interpreting brand information in an advertisement. In consumer behaviour literature ability generally refers to the extent to which consumers have the necessary resources to make an outcome happen, solve problems, and know how to act (Hoyer and MacInnis, 1997 Pieters 1991; Rothschild, 1999). In this research context ability is defined as employee's skills or proficiencies to engage in inter functional coordination. For employees to be able to effectively coordinate with personnel from different functional units, certain types of skills and capabilities should be developed. These abilities are hypothesized in this research to be improved by: multifunctional training, personnel movement, interpersonal skills, and the use of IT systems.

Lawrence and Lorsch (1967) believe that employees' educational backgrounds and personal capabilities are the grounds of miscommunication in organisations. It is usually argued that differences in training often stand in the way of efficient communication. For example, Griffin and Hauser (1996) believe that multifunctional training improves managers' understanding of other function's terminologies, hence reducing language barriers between functions, and perceived conflict resulting from them. Furthermore, Dougherty (1992) suggests that multifunctional training helps manager to better appreciate the goals, perspectives, and priorities of other functions, thereby further reducing differences functional thought worlds.

Griffin and Hauser (1996) define multifunctional training as the extent to which managers in a functional area are provided with opportunities and encouraged to learn about other functional areas. This training may take various forms including directly learning

another function's subject matter, participating in training sessions with people from other functions, and working in more than one function. The argument that multifunctional training is effective in reducing language barriers between specializations, and recognize priorities and perspectives of other functional units is supported in many literature streams like new product development, customer orientation and market orientation.

In the new product development literature, several authors have suggested that increasing the exposure of R&D personnel to marketing issues through training can help improve their relationship with their marketing colleagues (e.g. Griffin and Hauser 1996; Gupta et al. 1985a; Gupta et al. 1985b; Moenaert and Souder 1990; Souder 1977; Weinrauch and Anderson 1982). Parry and Song (1993) have shown that the perception of effective integration between R&D and marketing is positively correlated with the R&D personnel training in marketing. Moreover, Shaw and Shaw (2003) conclude that engineers with marketing training take a much more strategic view of marketing, recognizing marketing strategic role in internal communications, NPD, product distribution and pricing.

In the customer orientation literature, Santos and Stuart (2003) in line with Doyle and Wong (1998) argue that training builds employee capabilities to be more customer oriented and drive successful customer focus strategies. They suggest that multifunctional training is a planned process to modify attitudes, knowledge or behaviours of employees to focus on creating superior value for customers. Pfeffer (1998) notes that the objective of multifunctional training is to create a skilled and motivated workforce that has the knowledge and capability to perform requisite tasks. Wexley and Latham (1991) state that managers' and employees' behaviours can be influenced through training programs. Moreover, Williams and Attaway (1996) in line with Weitz et al., (1986) state the implementation of customer oriented strategies is moderated by employees abilities and skills which can be improved by the use of training.

In the market orientation literature, researchers suggest that management should develop appropriate systems and structures to achieve required behaviours related to the adoption of market orientation. Training is one of these systems that aim at developing and motivating employees to be more customer conscious and perform market oriented behaviours (Jaworski and Kohli, 1993; Tansuhaj, Wong and McCullough, 1987; Heskett *et al.*, 1994; Ruekert 1992; Tuominen and Möller 1996). Subsequently, based on the previous arguments on the effectiveness of multifunctional training in improving employees abilities in achieving different organisational outcomes, we can hypothesize that

*H5a: the higher the use of multifunctional training, the higher the level of harmony of cross-functional relationships.*

*H5b: the higher the use of multifunctional training, the higher the level of quality of cross-functional information.*

*H5c: the higher the use of multifunctional training, the higher the level of cross-functional involvement.*

Personnel movement or job rotation is defined as the extent to which employees are assigned to areas outside their functional specialties in order to broaden their knowledge. Souder (1987) believes that personnel movements foster cross-functional skills, broaden employee's vision, and increase understanding of the practices, procedures, problems, and goals of other functions. Organisation literature proposes personnel movement between functional groups as one technique to improve flows across functional boundaries (e.g. Carroad and Carroad 1982; Allen 1986; Roussel *et al.* 1991). Personnel movement is viewed as potentially reducing thought-worlds, language and physical barriers between functions, enhancing use of information and improving inter functional coordination. Moreover, personnel movements are considered as an effective mechanism in the long run because employees are temporary moved between functional units, thus they enhance integration

without reducing valuable functional skills (Griffin and Hauser 1992). Furthermore, Griffin and Hauser (1996) argue that when employees move from one function to another, they bring with them useful information explaining how and why decisions are made in their functional units. Moved employees also bring with them the knowledge of the other group's jargon, contacts, and friendship-based links. These links reduce the barriers caused by differences in cultural thought worlds and languages across the groups, improve the probability of both information utilisation and inter functional coordination, and decrease uncertainties (Griffin and Hauser, 1996). Moenaert et al. (1994) found that personnel movement increased interaction and led to simultaneous information flows and increased integration. In general, extant research has shown that personnel movement improves information flows across functional boundaries and reduces interdepartmental conflict (Roberts 1987) and it stimulates cooperation (Griffin and Hauser 1996; Keys and Miller 1984; Parry and Song 1993). Following these arguments this research anticipates that:

*H6a.: the greater the use the use of personnel movement across functional areas, the higher the level of harmony of cross-functional relationships.*

*H6b: the greater the use the use of personnel movement across functional areas, the higher the level of quality of cross-functional information*

*H6c: the greater the use the use of personnel movement across functional areas, the higher the level of cross-functional involvement.*

### ***Enhancing employee's opportunity to coordinate:***

Organisations have to provide opportunities to facilitate coordination between different functional units. These opportunities reflect the extent to which an organisation's environment is contributing to achieving a desired inter functional coordination. MacInnis et al., (1991) argue that opportunity can be approached from a positive view of availability, or a negative view of impediments. Opportunity, in this research context, is defined as the

availability of infrastructure and mechanisms contributing to higher inter functional coordination. High opportunity would imply that the amount of attention that an employee would like to devote to coordination activities is not impeded by constraints that restrict him/her from allocating necessary resources towards coordination. It reveals how firms' structure and culture encourage employees to involve in activities that will contribute to enhancing inter functional coordination. Scholars in a number of disciplines including product management, marketing and organisation science argue functional specialisation have to be complement with integrative devices to facilitate coordination between functional units (e.g., Lawrence and Lorsch, 1967; Souder, 1977; Souder et al., 1993; Allen, 1986; Ruekert and Walker 1987; Shapiro 1977). Hence, this research posits that an example of the opportunities firms can provide and which can positively impact IFC include: cross functional teams, and social orientation.

Cross-functional teams (CFTs) refer to the extent to which teams composed of members from multiple functions are used to tackle organisational threats and opportunities (Clark and Wheelwright, 1993; Pinto et al., 1993; Griffin and Hauser, 1996). CFTs have become a standard integration mechanism for many organisations as they are considered an effective method for dealing with increasing environmental complexity. Principally, CFTs have been formed to address processes that require the coordination of many functions (e.g., NPD and TQM). Lawrence and Lorsch (1967) support the construction of cross-functional groups to manage new product development. Pinto et al., (1993) argue that the use of cross-functional teams accentuates the significance of achieving organisation-wide goals. Moreover, Johnson and Brown (1986) postulate that CFTs provide opportunities for employees to combine their existing knowledge base with a broader range of information and experience from other employees who hold different perspectives. Maltz and Kholi (2000)

argue that cross functional teams members not only learn the language of both technologists and marketers, but also they interpret these jargons to others in their home functions.

Cross-functional teams have become a popular structural mechanism for managing new product development projects (Adler, 1995; Griffin and Hauser, 1996; Olson et al., 1995; Wheelwright and Clark, 1992) for many reasons. Marsh and Stock (2003) argue that CFTs assure improved integration of diverse skills that exist in R&D, production, marketing, and other functional groups. Therefore, they enhance creativity, reduce costs, and accelerate product development processes and cycle times. Griffin and Hauser (1996) advocate CFTs to reduce language barriers between functions, thus increasing communication and perceptions of between marketing and R&D. Extant literature cites usage of CFTs as a main contributor to improved market success, profit generation, and reduced development cycle time (e.g. Brown and Eisenhardt, 1995; Takeuchi and Nonaka, 1986; Wheelwright and Clark, 1992). In general, The popularity of CFTs is largely due to their positive impact on interdepartmental integration, NPD success, and also because they are relatively easy to institute in comparison to placing the entire organisation into a matrix structure just to obtain the cross-functional integration required for some tasks (Griffin and Hauser, 1996). Building on the premises of previous research we posit that:

*H9a: The use of cross functional teams positively impact harmony of cross-functional relationships.*

*H9b: The use of cross functional teams positively impact quality of cross-functional information.*

*H9c: The use of cross functional teams positively impact cross-functional involvement*



Social orientation refers to the extent to which an organisation's members are provided with opportunities to socialise in non-work related contexts (Maltz and Kohli, 2000). Examples of such contexts include picnics, recreational activities, athletic leagues, and company parties. Maltz and Kohli (2000) in line with Pondy (1967) argue that the informality of these events aids managers to better understand each others' personalities and preferences, which enhances the development of solidarity and friendship and reduce conflict. Moreover, it is suggested that while these activities are for social purposes, some work-related discussions typically take place clarifying issues encountered at work (Maltz and Kohli 2000).

Many scholars advocate informal interaction as a significant mechanism for integration (e.g., Maltz and Kohli 2000; Ruekert and Walker 1987a; Shapiro 1988; Doney and Cannon 1997). The underlying premise for valuing informal interaction is that it becomes easier for employees to request assistance and coordinate with other members that they know on a personal basis. Maltz and Kohli (1996) argue that social orientations expose managers to different perspectives and that informal conversations taking place in these events are crucial to reducing misunderstandings between functions. Griffin and Hauser (1992, p.22) postulate that “developing informal cross-functional networks reduces the language, thought-world, and physical barriers to integration, allows more information to be communicated and used, enhances co-ordination and decision making”. Consequently, we can predict that:

*H10a: Social orientation is positively related to harmony of cross-functional Relationships.*

*H10b: Social orientation is positively related to quality of cross-functional information.*

*H10c: Social orientation is positively related to cross-functional involvement.*

## ***Inter functional Coordination Impact on Marketing***

This section addresses the underlying premise of this research that inter functional coordination positively impacts marketing performance. Inter functional coordination is argued to be at the root of successful marketing planning and implementation (Piercy and Lane, 1996). Its true value lies in its potential in enhancing marketing and business performance. Marketing scholars advocate inter functional coordination as a key factor in the successful development and implementation of marketing plans and strategies (Deshpandé and Webster 1989; Noble and Mokwa 1999; Rapert et al. 2002; Tadepalli and Avila 1999; Brady 2004; Narver and Slater, 1990). Different theories support the positive propositions of the impact of IFC on marketing performance. Examples of some of these theories are: market orientation, resource based view, However, to what extent does IFC impact marketing performance and what aspects of marketing performance are affected by IFC has not been empirically examined. Therefore, a major gap in the literature is to provide enough empirical evidence of the direct impact of inter functional coordination on different dimensions of marketing performance. This study contributes to adding knowledge on the effect of inter functional coordination on marketing performance.

Morgan et al., (2002) argue that marketing researchers have to a large extent neglected the resource based view literature (exception Day 1994; Hunt and Morgan 1995) which resulted in a lack of knowledge of sources of advantages in marketing performance. Menon et al. (1999) argue that cross-functional integration, communication quality, and consensus commitment are critical in developing a quality marketing strategy. Therefore, this research suggests that inter functional coordination results in improving marketing performance through building marketing and organisational capabilities that will improve business performance.

Because of marketing personnel close contact with customers, they have the closest view of customer requirements and the required organisation's ability to satisfy those requirements. If they can be motivated to communicate these customer needs to management and to share information with staff in other functional units, the likelihood increases that the organisation as whole will design appropriate service standards, deliver to those standards and create realistic customer expectations through its marketing communications. The creation of an informed, motivated employee in all functional units forms the key to customer satisfaction (Menon et al. 1999).

The constituency-based theory also provides an underlying theoretical orientation for hypothesizing a relationship between IFC and improved marketing performance. The theory suggests that for a firm to be effective in a marketing sense it must satisfy the long term needs of customers (Anderson, 1982). From this perspective, it follows that the firm must have the appropriate structure and culture to enhance IFC in order to implement the marketing concept and achieve superior marketing performance. Additionally, the market value theory posits that all major decisions within a firm be treated as investments. Thus, the decision to establish strong inter functional coordination should be evaluated on the basis of probable return. Such investments are likely to lead to long term customer satisfaction, which in turn is likely to lead to improved marketing and business performance.

Based on the above mentioned arguments, this research empirically examines to what extent inter functional coordination positively impacts marketing strategy performance in terms of adaptiveness, effectiveness, and efficiency and the creativity of marketing programmes. Marketing programmes in this context is defined as "the attempt to bring together the smaller elements of the marketing job (selling, advertising, pricing, etc.) to provide products or services or to better target a specific group of customers (Clark 2000).

The following section will provide supporting arguments for the research hypotheses of the positive impact of inter functional on marketing performance.

Adaptiveness is defined as the ability of the organisation to respond to environmental changes (Morgan et al., 2002; Ruekert and Walker, 1987b). Adaptiveness reflects how well an organisation's marketing programme is adapted to the external environment. It is considered an important dimension of evaluating marketing performance since success of a firm arises when its strategy fits the environment (Bonoma and Clark, 1988; Walker and Ruekert, 1987b). Morgan et al (2002), argue that adaptiveness has the potential to be a precursor of marketing effectiveness and efficiency.

Market orientation literature suggests that coordination between different functional units will allow a firm to be swifter in responding to its external environment (Narver and Slater, 1990; Kohli and Jaworski, 1990). Souchon et al., (2004) in line with Krohmer et al., (2002) argue that inter functional coordination has been shown to increase the responsiveness of firms to external opportunities and threats. In fact, while Souchon et al. (2004) expected a moderating effect of inter functional coordination on the relationship between marketing information instrumental/conceptual use and responsiveness, a direct positive relationship was found between IFC and responsiveness to marketing information which is operationalised as speed, formality, and overall quality of planning and implementation. Therefore, we can posit that:

*H11a: Harmony of cross-functional relationships positively impact marketing's adaptiveness.*

*H12a:- Quality of cross-functional information positively impact marketing's adaptiveness.*

*H13a: Level of cross-functional involvement positively impact marketing's adaptiveness.*

Marketing effectiveness relates to the extent to which desired market-based objectives are achieved (Clark 2000; Morgan et al. 2002), success versus competitors (Walker and Ruekert, 1987), ‘doing the right thing’ (Drucker, 1974 p. 45). Kotler defined marketing effectiveness as “whether an organisation understands and practices marketing and if so, how well” (Kotler, 1977, p. 67). Many studies use Kotler’s (1977) classification of marketing effectiveness that describe marketing effectiveness as the five components of: customer philosophy, integrated marketing organisation, adequate marketing information, strategic orientation, and operational efficiency (Webster, 1995). This classification recognises that marketing effectiveness ultimately depends on firm’s ability to implement marketing programmes successfully at various levels (Kotler, 1977). However, it is worth noting that Kotler’s characterisation of effectiveness overlaps the distinct constructs of efficiency and effectiveness by including efficiency as a component of effectiveness (Kahn and Myers, 2005).

Sheth and Sisodia (1995) in line with Bonoma and Clark (1988) suggest that the main idea behind the effectiveness dimension of marketing performance is that any measure of performance should incorporate the decision maker’s objectives. Therefore, managers whose performance meets or exceeds the organisation’s goals are seen as effective. In general, marketing effectiveness has been defined as the marketing organisation’s ability to achieve its planned goals, given organisational capabilities, competition, consumer preference, and other environmental conditions (Kerin and Peterson, 1998). Marketing effectiveness is measured by the degree to which the firm achieved its market share growth, sales growth, and market position goals (Clark, 2000).

Many studies have argued for the positive impact of IFC on sustainable competitive advantage (Zinkhan and Watson 1998), achieving strategic objectives (Ruekert and Walker

1987); market orientation and business profitability (Kohli and Jaworski 1990; Narver and Slater 1990; Slater and Narver 1994, 1995). Inter functional coordination will ensure the alignment between market opportunities and threats and consumer wants to firm's capabilities. Therefore, a high level of inter functional coordination enables a firm to provide effective marketing programs that fit the firms' objectives, meet customers' needs and gain competitive advantages. Hence we can hypothesis that:

*H11b: Harmony of cross-functional relationships positively impact marketing's effectiveness.*

*H12b: Quality of cross-functional information positively impact marketing's effectiveness.*

*H13b: Level of cross-functional involvement positively impact marketing's effectiveness*

Bonoma and Clark, (1988) defined efficiency as the relationship between performance outcomes and the inputs required to achieve them. Walker and Ruekert (1987) defined efficiency as a business programmes' outcomes in relation to the resources employed, suggesting return on investment (ROI) as a measure. Most simply, Drucker (1974) referred to efficiency as 'doing things right' (p. 45). The efficiency of marketing, sometimes called marketing productivity, has been an important area of study in marketing performance assessment as it examines how best to allocate marketing activities and assets to produce the most output. Foster and Gupta (1994) suggest that the majority of research examining marketing efficiency either support or incrementally extend Sevin's (1965) profit-to expense-ratio to measure marketing efficiency. In assessing marketing productivity, input measures suggested as appropriate have included efforts to operationalise and quantify marketing expenses and levels of investment in terms of effort, and allocation of operating costs, and the

output measures have included profits, sales market share, and cash flow (Bonoma and Clark, 1988).

The development and implementation of marketing strategies require effective coordination between different functional units to allocate resources needed to achieve strategies objectives. Achieving coordination between different functional units involved in developing and implementing marketing programmes will ensure accurate deployment of resources to achieve the desired outcomes. Therefore, we can argue that the coordination between marketing and different functional units could enhance the efficiency of marketing programs by reducing misallocation of resources needed to efficiently implement the marketing programmes. Hence we can hypothesis that:

*H11c: Harmony of cross-functional relationships positively impact marketing's efficiency.*

*H12c: Quality of cross-functional information positively impact marketing's efficiency.*

*H13c: Level of cross-functional involvement positively impact marketing's efficiency.*

### **Research Methodology**

The research utilized both qualitative and quantitative research methods to collect the research data. However, the quantitative research methodology is considered the main instrument to test the research hypotheses to be able to provide statistical measures that will imply generality of the findings. This next section explain the research context, data collection procedure, questionnaire design, research samples, and measurement model.

The research is conducted in Egypt targeting middle to large firms. The choice of Egypt was prompted by several reasons. First, it provides an opportunity to test theories

related to intra-firm relationships and marketing performance in a context outside USA and European countries. More specifically, it will provide a prospect to validate the generality of prior research findings conducted in developed countries by testing them in a developing country context. Second, a lack of studies addressing developing effective organization structure and mechanisms to enhance inter functional coordination and marketing performance in developing economies provides an opportunity for knowledge contribution. Third, Egypt represents one of the important economies in the Middle East and Africa regions and to a great extent represents the culture of these two regions. Therefore, the empirical findings of this research will be expected to benefit private companies operating in Egypt, Middle East, and Africa regions.

Miles and Huberman (1994) argue that qualitative research methods help researchers understand phenomena, humans and their behaviour along with the socio-cultural context within which phenomena are embedded. Therefore, the study decided to conduct a qualitative study prior to conducting the survey to get insights about the applicability of the research conceptual model in the Egyptian culture. In depth interviews with 12 managers from different functional units in 7 organisations were conducted. The interview duration varied from approximately 30 to 90 minutes. Interviews took place at the respondents' premises and were tape recorded with prior consent from interviewees and then transcribed. The interviews followed a semi-structured format, based on questions which were designed to allow the direction of the interview to evolve. The interviews revealed that, as suggested in Western literature, coordination is a vital issue for firms but it is usually a problematic issue to be implemented.

In order to test the research hypotheses a questionnaire was developed targeting mid-level managers of different functional units inside middle to large firms operating in Egypt. Because inter functional coordination is a dynamic process which involves different



functional units, multi informant methodologies have generally been recommended to capture the perspectives of the multiple parties involved (Phillips 1981). In this study, the dynamics of inter functional coordination were examined by sampling midlevel departmental managers of different functional units. Functional units' managers served as the questionnaire recipient because they oversee inter functional activities of their respective functional units, assign personnel to inter functional assignments, deal directly with other functions' managers, and represent the sentiments of their functional units (Phillips 1981).

The paper questionnaire was pre tested for clarity and appropriateness through interviews with four midlevel managers. The online version of the questionnaire had helped in reducing the questionnaire length problem. In the online survey the questionnaire was divided into screens, i.e. the participant has to click next to go to the next set of questions. By this way the participants will not be intimidated with the length of the questionnaire. The online survey was also designed to enable participants to return and finish the survey at their convenient time, if they had to stop filling it for any reason.

In the first method, the researcher followed the procedures usually recommended in mail survey research. mail survey was sent to firms listed in the American chamber of commerce in Egypt directory of membership 2007/2008. The directory includes accurate contacts of 1,473 members representing major Egyptian organisations. The directory also has a sector classification codes which allowed the removal of not for profit organisations like educational and NGOs institutions from the sample. Fortunately, the directory contains information about the names and positions of managers inside listed firms.

For each of these firms, a mail package was sent to a marketing manager if listed or any other functional unit manager. The mail package included a personalised cover page describing the research objectives, three copies of the Arabic version of the questionnaire for different functional managers, one English copy in case there is a manager who will prefer to

fill the English version or want to participate but does not understand Arabic, and a prepaid envelope to be used to return the filled survey. The contact person is requested to fill in one of the questionnaire and distribute the others to his/her other functional unit's managers and call for their participation. After a week a phone call was made to ensure that the contact person received the mail package. After two weeks, follow-up phone calls were made to encourage firms to participate.

After four weeks, the outcome of this method resulted in 7 questionnaires from 2 firms. It is worth mentioning that, based on the feedback from managers interviewed in my pilot study, this low response rate was expected. As mentioned above all the interviewees discouraged me from using this technique and advised that this method is not effective in Egypt. The low response rate provided evidence that this method which is the predominant method used in Western literature is to a large extent not recommended to be used in the Egyptian context. However, a possible explanation for the low response rate I got from this method could be attributed to the length of the questionnaire. The research questionnaire is considered relatively long as it included 10 pages and this might discourage participation.

The second method for collecting the survey data was through a web based questionnaire. An electronic version of the questionnaire (Arabic and English) was developed and a specific web address is assigned to it. A standard email is sent to email addresses for some firms listed in the American chamber of commerce and to more than 10000 email addresses of Egyptian firms included in an email business directory. After two weeks of the first email wave, another email is sent to remind participants of the need for their contribution. A final email reminder is sent to request participation after another two weeks. After a few more trials to send the online survey for more email business directories, the outcome of this method was 170 valid questionnaires filled online from 34 firms.

Since it is likely to be unrealistic to anticipate more response from the online survey after six months of trials, I decided to use a more personal approach. I visited major business centres and commercial buildings that host many companies. I approached some of these companies and requested meeting with some mid level managers to request their participation in my survey. Through these personal contacts, I was able to convince some managers of the significance of my research and the value of their contribution. Some of these managers were willing to participate and even helped in getting others in their organisations to participate. I asked willing participants to fill in the questionnaires while I was waiting in the premises or to set up an appointment for survey collection. This method resulted in the collection of 97 questionnaires from 18 firms. I believe that this method proved successful because it allowed for direct convincing of the research purpose and its value. Moreover, the personal approach put some pressure on managers to participate as within the Egyptian cultural, it is peculiar to decline a personal request to help. Nevertheless, there are disadvantages associated with this method as well in terms of time consuming, distress caused by rejection to participate.

Given the time constraints of this research, data collection resulted in a data set containing 274 questionnaires from 52 firms which is considered acceptable for academic research. The following table provide a summary of the research sample information, detailed information is provided in chapter 6.

	<i>Frequency</i>	<i>%</i>
No. of Firms	52	100
No. of surveys	274	100
No. of manufacturing firms	27	52%
No. of service firms	25	48%
No. of multinational firms	19	37%
No. of local firms	33	63%
No. of English surveys	254	93%
No. of Arabic surveys	20	7%
No. of male participants	166	61%
No. of female participants	108	39%

## ***Measurement***

The measurement of all the constructs used in this research was based on previously developed scales that have shown high level of reliability and validity in prior studies. These items were pre-tested through interviews with different functional units' managers. All constructs were measured with multi item measures scored on a 7 point scale. The following table provides information about the research questionnaire also collected data about the respondent's profile and firm characteristics that used as control variables. Information about the respondents includes current position, years in the current functional units, any prior experience in working in other functional units, age, and gender. Information about the respondent's firms relates to name, type of industry, and number of employees.

## **Data Analysis and Results**

This section of the paper contains two main analysis sections, the first section addresses the analysis of the research measurement model, and the second section is dedicated for hypotheses testing. Since the research apply constructs measurement drawn mostly from Western literature, it is crucial to analyse the measurement model and ensure its reliability and validity. Specifically, the psychometric properties, which include the structural validity and internal reliability of the scales, will be presented.

Before presenting the analysis of the research measurement and structural models, it will be fundamental to provide an overview of the research dataset characteristics. The following table provides general description about the research sample. The following section highlights some descriptive statistics regarding the profile of the respondents and their represented firms.

	<i>Frequency</i>	<i>%</i>
No. of Firms	52	100

No. of surveys	274	100
No. of manufacturing firms	27	52%
No. of service firms	25	48%
No. of multinational firms	19	37%
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No. of male participants	166	61%
No. of female participants	108	39%

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## ***Assessment of the Measurement Model***

To restate, this research used existing validated scales adapted from prior research with minor modifications based on feedbacks from the pilot. Due to the application of the constructs in a different cultural context, the reliability and validity of the constructs showed some divergent results. In order to purify the measures to be used in hypotheses testing, several techniques were used. First, reliability analysis, and exploratory factor analysis were undertaken using SPSS. This resulted in the deletion of items when cross-loadings or weak loadings were identified. The final items used in testing the research hypotheses, means, standard deviation, and reliability results are reported in table (2). Reliability is estimated via internal consistency and Cronbach’s alpha and validity is estimated with factor analysis and intercorrelation between constructs. Given the exploratory and descriptive nature of the study, principal components analysis with Varimax rotation was deemed appropriate. Factors were retained only if they possessed an Eigenvalue greater than one, accounted for over fifty percent of variance and if they were conceptually clear and interpretable (Churchill, 1991). Further analysis for reliability and validity was assessed with confirmatory factor analysis.

*Table 2 Constructs Reliability Analysis.*

<b><i>Construct</i></b>	<b><i>Items</i></b>	<b><i>Mean</i></b>	<b><i>SD</i></b>	<b><i>Alpha</i></b>	<b><i>CR</i></b>	<b><i>AVE</i></b>
<b><i>Resource Dependency</i></b>	<ol style="list-style-type: none"> <li>1. For your department to accomplish its goals and responsibilities, how much does it need the services, resources, or support from the marketing department?</li> <li>2. For the marketing unit to accomplish its goals and responsibilities, how much does it need the services, resources, or support from</li> </ol>	5.0	1.68	0.88	0.92	0.85

<i>Construct</i>	<i>Items</i>	<i>Mean</i>	<i>SD</i>	<i>Alpha</i>	<i>CR</i>	<i>AVE</i>
	your department?					
<b>Top management support</b>	1. Our management formally promotes and encourages inter functional coordination.	6.0	0.41	NA	NA	NA
<b>Joint Reward Systems</b>	1. The marketing and other functions share equally in the rewards from a well implemented market strategy 2. Marketing managers' evaluations are based on joint performance with other managers. 3. Your overall compensation depends on your contribution to other functional units	5.7	0.79	0.77	0.83	0.64
<b>Multifunctional Training:</b>	1. Managers participate in training programs that acquaint us with areas outside our specific function. 2. Experience in more than one functional area is a consideration for promotion and advancement. 3. We receive training in how to communicate with people in other functional areas. 4. We participate in training sessions with managers from other functional areas.	6.1	0.59	0.71	0.73	0.54
<b>Personnel movement</b>	1. Planned job rotation of employees and managers is emphasized as a device for developing their capabilities. 2. We rotate employees across functional areas	4.4	2.1	0.97	0.97	0.95
<b>Cross-Functional Team Use:</b>	Our firm uses teams that include midlevel managers from multiple functions to : 1. Visit external customers. 2. Develop new products/service. 3. Develop product performance goals.	5.8	0.59	0.77	0.90	0.63

<i>Construct</i>	<i>Items</i>	<i>Mean</i>	<i>SD</i>	<i>Alpha</i>	<i>CR</i>	<i>AVE</i>
	<ol style="list-style-type: none"> <li>4. Develop SBU-level financial goals.</li> <li>5. Identify new markets or customers.</li> <li>6. Review the performance of the SBU.</li> <li>7. Review the performance of a product or product line.</li> </ol>					
<b><i>Social Orientation</i></b>	<p>How often have the following activities involving individuals from different functional areas been organized by your firm?</p> <ol style="list-style-type: none"> <li>1. Recreational games and athletic matches</li> <li>2. After work or evening get-together</li> <li>3. Weekend events</li> </ol>	5.42	0.89	0.60	0.66	0.41
<b><i>Harmony of Cross-Functional Relationship</i></b>	<ol style="list-style-type: none"> <li>1. Overall, we are satisfied with the relationship between our department and other functional units.</li> <li>2. All functional units try their best to carry out the responsibilities and commitments made to each other.</li> <li>3. There is a give-and-take relationship among the functional units.</li> </ol>	6.1	0.45	0.67	0.71	0.52
<b><i>Quality of cross-functional information</i></b>	<ol style="list-style-type: none"> <li>1. The information presented by one department to the others is accurate.</li> </ol>	5.92	0.53	NA	NA	NA
<b><i>Level of cross-functional involvement</i></b>	<ol style="list-style-type: none"> <li>1. Our department is involved in analyzing market opportunities.</li> <li>2. Our department is involved in visiting major customers.</li> <li>3. Our department is involved in test marketing/trial selling prior to launch.</li> <li>4. Our department is involved in determining desired product features.</li> </ol>	4.3	1.83	0.92	0.92	0.75
<b><i>Adaptiveness</i></b>	<ol style="list-style-type: none"> <li>1. Adapting your marketing strategy adequately to changes in the business</li> </ol>	4.78	1.22	0.57	0.52	0.45



<i>Construct</i>	<i>Items</i>	<i>Mean</i>	<i>SD</i>	<i>Alpha</i>	<i>CR</i>	<i>AVE</i>
	<p>environment of your business unit</p> <p>2. Adapting your marketing strategy adequately to changes in competitors' marketing strategies</p> <p>3. Adapting your products quickly to the changing needs of customers</p>					
<i>Effectiveness</i>	<p>1. Attaining desired growth?</p> <p>2. Securing desired market share?</p>	5.4	1.03	0.58	0.42	0.38
<i>Efficiency</i>	<p>1. Achieving better marketing results at less costs?</p> <p>2. Working productively with all functional units in the business unit?</p> <p>3. Performing marketing activities right the first time?</p>	5.2	0.55	0.75	0.78	0.55
<i>Environmental turbulence</i>	<p>1. Market opportunities.</p> <p>2. Competitive intensity.</p> <p>3. Products/services innovation in your industry</p> <p>4. Customer preferences and expectations.</p> <p>5. Legal and political constraints (e.g., government regulations).</p>	4.92	1.19	0.89	0.90	0.66
<i>Technological turbulence</i>	<p>1. The technology used to provide our products and services changes rapidly</p> <p>2. Technological changes provide big opportunities in our industry</p> <p>3. Many new product and service ideas have been made possible through technological breakthroughs in this industry</p> <p>4. There are major technological developments in the industry</p>	2.09	0.96	0.87	0.88	0.64
<i>Differentiation</i>	<p>1. develop new products or services</p> <p>2. provide unique products or services</p>	1.86	0.83	0.85	0.86	0.61

<i>Construct</i>	<i>Items</i>	<i>Mean</i>	<i>SD</i>	<i>Alpha</i>	<i>CR</i>	<i>AVE</i>
	3. offer innovative products and services 4. offer highly differentiated products and services					
<i>Cost leadership</i>	1. invest in cost-saving technology 2. emphasize efficiency 3. redesign products or services to reduce costs 4. strive for high volume to spread costs	3.98	0.97	0.77	0.81	0.57

Notes: *SD*: Standard Deviation, *Alpha*: Cronbach's Alpha; *CR*: Composite reliability; *AVE*: Average variance extracted.

Table 3 shows the correlation between constructs as a measure of constructs validity.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	1																
2	.337**	1															
3	.178**	.294**	1														
4	-0.061	-0.022	.184**	1													
5	0.055	.196**	.264**	.287**	1												
6	.239**	.184**	.198**	.500**	.193**	1											
7	0.025	-.155*	-0.105	-.290**	-.341**	-.137*	1										
8	0.017	-.238**	0.053	.377**	-0.023	.353**	-.129*	1									
9	0.106	.307**	.304**	.309**	.225**	.275**	-.145*	.204**	1								
10	.313**	.247**	0.111	-0.087	0.083	.259**	-.147*	-0.014	0.013	1							
11	.756**	.382**	.197**	-0.045	0.028	.214**	-0.032	-0.036	.172**	.251**	1						
12	0.052	.283**	.256**	.197**	.175**	0.038	-.377**	0.035	.452**	0.05	.209**	1					
13	0.117	.336**	.222**	0.077	.136*	.125*	-.264**	0.025	.409**	0.081	.177**	.528**	1				
14	0.019	.196**	.175**	0.023	.179**	-0.031	-.270**	-0.004	.214**	-0.049	0.035	.378**	.740**	1			
15	-.197**	.173**	.278**	.264**	.272**	0.083	-.384**	.224**	.468**	0.06	-.241**	.517**	.417**	.364**	1		
16	-0.104	-0.083	-0.079	-.280**	-0.014	-.298**	.341**	-.326**	-.187**	-.223**	-.185**	-0.111	-0.033	-0.042	-0.081	1	
17	-.251**	-.213**	-0.086	-0.081	0.024	-.177**	.189**	-0.052	-0.019	-.145*	-.359**	-0.03	0.012	0.057	.157**	.432**	1

Notes: \*\*Correlation is significant at the 0.01 level (2-tailed); \*Correlation is significant at the 0.05 level (2-tailed).

1= Resource Dependency; 2= Joint Reward Systems; 3= Management Support; 4=Multifunctional Training; 5= Personnel Movement; 6=Cross functional Teams; 7=Social Orientation; 8=Harmony of Cross Functional Relationships; 9= Level of Cross Functional Involvement; 10=Level of Cross Functional Involvement; 11= Adaptiveness; 12= Effectiveness; 13= Efficiency; 14=Environment Turbulence; 15=Technology Turbulence; 16= Differentiation; 17=Cost leadership.

Harman's one-factor test was conducted to test the presence of common method effect in the research data. All the variables were entered into an exploratory factor analysis, using principal component analysis with Varimax rotation, to determine the number of factors that are necessary to account for the variance in the variables. The factor analysis, revealed the presence of 17 distinct factors with eigenvalue greater than 1.0, rather than a single factor. The 17 factors together accounted for 81 percent of the total variance; the first (largest) factor did not account for a majority of the variance (12.5%). Thus, no general factor is apparent. While the result of this analysis does not exclude the possibility of common method variance, it suggests that common method variance is not of great concern and thus is unlikely to confound the interpretations of findings. Furthermore, having established an acceptable reliability and validity of the research measurement model, the next critical analysis is related to hypothesis testing which is discussed in details in the next section.

## ***The Structural Model: Regression Analysis and Results***

Based on the reliability and factor analysis findings presented in the previous section, unreliable items were removed from their latent variables. Then the average of the items representing each of the constructs is computed to be used in regression analysis.

Several regression models were run to test the relationships between the independent and dependent variables suggested in the hypotheses. Each regression model included in the analysis represents regressing one dependent variable on one of the independent variable plus controlling for the following variables: environmental turbulence, technological turbulence, differentiation strategy, cost leadership strategy, industry type (manufacturing, service), age, and gender. Statistically each regression model can be expressed as:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8$$

Where:

Y = the dependent variable; X1= the independent variable ; X2= environmental turbulence; X3= technological turbulence; X4= differentiation strategy; X5= cost leadership strategy; X6= industry type; X7= age; X8= gender

Table (4) summarizes the result of testing the research hypothesis on the impact of various factors on improving inter functional coordination.

Table (4) Regression Results: Determinants of Inter functional Coordination

<i>Dependent Variables</i>			
	<b>Harmony of Cross-Functional Relationship</b>	<b>Quality of Cross- Functional Information</b>	<b>Level of Cross- Functional Involvement</b>
<i>Independent Variables</i>			
Resource Dependency	0.189*** (0.014)	0.332*** (0.016)	0.686*** (0.045)
Management Support	0.134** (0.038)	0.079 (0.043)	0.218*** (0.162)
Joint Reward Systems	0.161*** (0.026)	0.294*** (0.029)	0.419*** (0.105)
Multifunctional Training	0.125** (0.039)	-0.134 (0.045)	-0.049 (0.174)
Personnel Movement	0.062 (0.012)	0.105* (0.13)	0.063 (0.051)
Cross Functional Teams	0.236*** (0.043)	0.229*** (0.049)	0.192 *** (0.191)
Social Orientation	0.122** (0.030)	- 0.083 (0.33)	-0.502 (0.130)

Notes: B = Standardized Coefficients. Standard errors in parentheses.

\*\*\*P < 0.01; \*\*P < 0.05 \*P < 0.10

## Inter functional Coordination Impact on Marketing Performance:

This section delineates statistical findings about the primary assertion of this research that inter functional coordination positively impact marketing performance. To accentuate, marketing literature endorses inter functional coordination as a key factor in the successful development and implementation of marketing plans and strategies. However, to what extent does inter functional coordination impact marketing performance and which aspects of marketing performance are affected by IFC has not been empirically examined. Therefore, a major contribution of this research is its attempts to empirically find evidence of the suggested direct relationships between inter functional coordination and marketing performance which has never been directly investigated before. The following section will present the results of hypotheses testing regarding the relationships between inter functional coordinaton dimensions and marketing performance dimensions as suggested in chapter 3. Table (5) summarises the regression analyses results and followed by a brief discussion of each hypotheses testing results.

*Table (5): Regression Results: Inter functional Coordination Impact on Marketing Performance*

	<i>Marketing Adaptivness</i>	<i>Marketing Effectiveness</i>	<i>Marketing Efficiency</i>
<b><i>Independent Variables</i></b>			
<i>Harmony of Cross-Functional Relationship</i>	0.263*** (0.161)	0.240*** (0.060)	0.207*** (0.084)
<i>Quality of Cross-Functional Information</i>	-0.014 (0.148)	0.081* (0.055)	0.141** (0.057)
<i>Level of Cross-Functional Involvement</i>	0.322*** (0.036)	0.306*** (0.013)	0.266*** (0.019)

B = Standardized Coefficients. Standard errors in parentheses

\*\*\*P <0.01; \*\*P <0.05 \*P <0.10

**Testing the robustness of the conceptual model:**

The following three tables provide further analysis of the impact of the research model independent variables on the dependent variables. In this regression model, all the independent variables and control variables were entered in a single regression model on one of the dependent variable at a time. The aim of this analysis is to determine the robustness of the research conceptual model and to provide some insights on the relative impact of the constructs when tested together.

Table (6) Findings of independent variables regression on inter functional coordination

<i>Dependent Variables</i>			
	<b>Harmony of Cross-Functional Relationship</b>	<b>Quality of Cross-Functional Information</b>	<b>Level of Cross-Functional Involvement</b>
<i>Independent Variables</i>			
Resource Dependency	-.055 (.015)	-0.09 (.024)	0.51*** (.050)
Management Support	.005 (.034)	-0.10 (.053)	0.03 (.111)
Joint Reward Systems	-.031 (.030)	0.05 (.047)	0.02 (.099)
Multifunctional Training	-.008 (.041)	0.07 (.065)	-0.01 (.137)
Personnel Movement	.027 (.011)	0.10 (.018)	0.03 (.038)
Cross Functional Teams	.026 (.049)	0.26*** (.077)	-0.09 (.163)
Social Orientation	.087 (.027)	0.02 (.042)	-0.01 (.089)
<i>Control Variables</i>			
Environmental Turbulence	.317*** (.028)	-0.01 (.043)	-0.40*** (.091)
Technology Turbulence	-.132** (.026)	-0.04 (.041)	-0.09*** (.085)
Differentiation	-.028	0.00	-0.10***



<i>Dependent Variables</i>			
	<b>Harmony of Cross-Functional Relationship</b>	<b>Quality of Cross- Functional Information</b>	<b>Level of Cross- Functional Involvement</b>
<i>Independent Variables</i>			
	(.028)	(.043)	(.091)
Cost Reduction	.002	-0.06	0.07**
	(.022)	(.035)	(.074)
Organisation Type	-.038	0.04	0.00
	(.050)	(.078)	(.165)
Age	.054	0.08	-0.01
	(.006)	(.010)	(.021)
Gender	-.126**	-0.01	-0.01
	(.050)	(.079)	(.166)
R Square	.573	.239	.718
F	16.996***	3.983***	32.153***

B = Standardized Coefficients.

\*\*\*P < 0.01; \*\*P < 0.05 \*P < 0.10

Table (7): Findings of independent variables regression on marketing performance.

<i>Dependent Variables</i>			
<i>Independent Variables</i>	<i>Marketing Adaptivness</i>	<i>Marketing Effectiveness</i>	<i>Marketing Efficiency</i>
<i>Resource Dependency</i>	-0.10* (0.04)	0.00 (0.04)	0.07 (0.02)
<i>Management Support</i>	-0.03 (0.08)	0.05 (0.09)	0.02 (0.05)
<i>Joint Reward Systems</i>	-0.01 (0.07)	-0.05 (0.08)	0.05 (0.05)
<i>Multifunctional Training</i>	0.16*** (0.10)	-0.06 (0.12)	-0.04 (0.07)
<i>Personnel Movement</i>	-0.03 (0.03)	-0.01 (0.12)	-0.04 (0.02)
<i>Cross Functional Teams</i>	-0.17*** (0.12)	-0.12 (0.14)	0.05 (0.08)
<i>Social Orientation</i>	-0.16*** (0.06)	-0.15** (0.08)	-0.11 (0.04)
<i>Control Variables</i>			
Environmental Turbulence	0.01 (0.07)	0.04 (0.08)	-0.16 (0.04)
Technology Turbulence	0.04 (0.06)	-0.04 (0.07)	-0.09 (0.04)
Differentiation	-0.03 (0.07)	0.06 (0.08)	-0.06 (0.05)
Cost Reduction	0.11*** (0.05)	0.04 (0.06)	0.10 (0.04)
Organisation Type	-0.06 (0.12)	-0.11 (0.14)	-0.06 (0.08)
Age	0.18*** (0.02)	0.03 (0.02)	0.02 (0.01)
Gender	0.13*** (0.12)	-0.03 (0.14)	0.16 (0.08)
R square	.664	.355	.252
F	24.992***	6.963***	4.260***

B = Standardized Coefficients.

\*\*\*P < 0.01; \*\*P < 0.05 \*P < 0.10

Table (6.17): Findings of inter functional coordination regression on marketing performance.

<i>Dependent Variables</i>			
	<i>Marketing Adaptivness</i>	<i>Marketing Effectiveness</i>	<i>Marketing Efficiency</i>
<b><i>Independent Variables</i></b>			
<i>Harmony of Cross-Functional Relationship</i>	0.19*** .162	0.02 0.17	0.13** 0.09
<i>Quality of Cross-Functional Information</i>	-0.09** .113	-0.07 0.12	0.03 0.06
<i>Level of Cross-Functional Involvement</i>	0.28*** .037	0.13 0.04	0.23*** 0.02
<b><i>Control Variables</i></b>			
<i>Environmental Turbulence</i>	0.52*** .071	0.39*** 0.06	-0.11 0.03
<i>Technology Turbulence</i>	-0.01 .061	-0.06 0.07	-0.05 0.04
<i>Differentiation</i>	-0.01 .082	0.04 0.08	-0.09 0.04
<i>Cost Reduction</i>	0.05 .063	0.00 0.06	0.09 0.03
<i>Organisation Type</i>	-0.11** .131	-0.12 0.13	-0.02 0.07
<i>Age</i>	0.12** .016	0.03 0.02	0.03 0.01
<i>Gender</i>	0.05 .129	-0.05 0.13	0.23*** 0.07
<b><i>R Square</i></b>	.434	.171	.203
<b><i>F</i></b>	20.12***	5.436***	6.701***

B = Standardized Coefficients.

\*\*\*P < 0.01; \*\*P < 0.05 \*P < 0.10

### **Discussion**

This research argues that a more integrative theoretical model is needed to be employed to understand the drivers for a desired organisation behaviour which is coordination. The Motivation/Ability/Opportunity framework (MAO) provided a suitable

model to understand what factors improve employees' motivation/ability/opportunity to coordinate and hence improve inter functional coordination. To meet that end, the researcher reviewed a wide range of literature to identify factors and mechanisms to improve inter functional coordination and develop a testable research model. Findings of the research suggest important insights for scholars and managers.

**Resource dependency** appears to have consistent effects on coordination given its significant relationship with the three dimensions of inter functional coordination. These findings are consistent with previous research that identifies resource dependence as a critical internal factor affecting interactions between marketing and other functional areas (e.g Ruekert, and Walker 1987, 1995; Jaworski and Kohli, 1993). As Ouchi (1980, p. 130) points out, "cooperative action necessarily involves interdependence between individuals. This interdependence calls for a transaction or exchange in which each individual gives something of value and receives something of value in return". Therefore, as the need for sharing knowledge and other resources among functional units increases, their interdependence grows along with the volume of resource flows and increases the use of coordinating mechanisms (Olson, Walker, and Ruekert 1995).

It is worth noting that this research focused mainly on the dependency between marketing and other functional units. Therefore, this construct showed a predicted finding as there is usually a high interdependency between marketing and other functional units (Ruekert, and Walker 1987, 1995; Jaworski and Kohli, 1993). In fact, this interdependency between marketing and other functional units is the main underlying reason for the significance of improving the coordination required to meet organisation's marketing objectives. Nevertheless, it is worth highlighting that literature also suggests that high resource dependency could lead to conflicts over authority and control among functional units (e.g., Pinto et al., 1993; Goebel et al., 2006) Therefore, firms need to create a certain level of

interdependency between functional units to provide incentives for coordination without being hindered by the competing self-interested views of the individual functional units.

This research also established the merits of adopting **joint reward systems** as a mechanism to improve inter functional coordination. As suggested by Good and Schultz (1997) adequate incentives can bring together disparate individuals to achieve common goals. The findings of this research suggest that joint reward systems indeed improve the three dimensions of inter functional coordination. These findings provide evidence that a reward system which encourages employees to aim for broader goals rather than myopically focusing on meeting departmental objectives, will promote employees to coordinate with other functional units. Previous research has shown similar results of the impact of organizational joint reward systems on cross-functional collaboration (e.g., Ellinger, 2000) new product performance (e.g. Griffin and Hauser, 1993; Thamhain, 1990). Reward system is one of the most effective and influential tools available to the organization intended to motivate certain performance (Beer, et al 1988). Therefore, an appropriate evaluation and reward system that recognizes teamwork and cooperation is a significant catalyst for the promotion of inter functional coordination.

Top management support is found to be important for the success of cross-functional integration among marketing, R&D in United States firms (e.g., Gupta et al., 1986, Song et al., 1997; Souder 1987). Therefore, the same relationship was expected to be held in the Egyptian context. It is important to note before interpreting the impact of this construct that it was originally manifested by three items, but the lack of acceptable reliability of the three items led to the utilization of one item to present this construct. The item directly asks participants for their level of agreement with the statement that their management formally promotes and encourages inter functional coordination.

**Management support** showed a positive impact on two dimensions of inter functional coordination: harmony of cross functional coordination and level of cross functional involvement. Previous studies focusing on integration mechanisms effects of marketing and some other functions also found the same positive relationship between management support and the level of integration (e.g. Ruekert and Walker, 1987; Gupta et al., 1986). Nevertheless, management support in this research was not found to have a significant impact on quality of cross functional information. One explanation of this could be that even if management supports inter functional coordination, it does not necessary improves manager's perceptions of the quality of information provided by other functional units. Moreover, the diversity of the functional units participated in the sample might explain the lack of relationship between management support and information quality. Different functional units have different perceptions of the information provided by certain functional units.

This research argues that for employees to be able to effectively coordinate with personnel from different functional units, certain types of skills and capabilities should be developed. These abilities are hypothesized in this research to be improved by multifunctional training and personnel movement.

In this research, multifunctional training was found to have a positive impact on improving the harmony of cross functional relationships. This findings support other research argument that multifunctional training help managers understand the jargon of other functions, reduce language barriers between specializations, and recognize priorities and perspectives of other functional units (e.g., Griffin and Hauser 1996, Swift, 1998). It is usually argued that differences in training often stand in the way of efficient communication. Therefore, it appears that multifunctional training can help in reducing conflict and improving the harmony between different functional units.

Surprisingly, there was no support found on multifunctional training impact on quality of cross functional information, nor on the level of cross functional involvement dimensions. The lack of evidence on the impact of this construct on both the level of cross functional coordination and the quality of cross functional information could be explained by the variance of use of this mechanism in companies represented in the sample. It was noticed in the research dataset that mainly multinational companies and large firms use multifunctional training as a sort of empowering employees and increasing their abilities in understanding other functional units' world views.

Another surprising result in this research is that related to the non significant effect of **personnel movement** on any dimension of inter functional coordination. Personnel movement is usually suggested in the literature as one of the most common method to foster integration and improve cross functional relationships cooperation (e.g., Griffin and Hauser 1996; Parry and Song 1993). Despite its intuitive appeal, personnel movement in this research does not appear to influence inter functional coordination. Our results suggest that, though personnel movement may be useful for developing broad skills, as suggested in the literature, it does not affect any dimension of inter functional coordination. A possible explanation for this relationship might be that the effect of this construct sometimes relay on other factors like the time interval spent between jobs. For example, Moenaert and Souder (1996) show that information received from employee who moved into another position too quickly was perceived as less credible.

Other research found similar findings that question the effectiveness of this mechanism. For example, (Leenders et al., 2002) did not find enough evidence of the effectiveness of personnel movement on the level of integration between marketing and R&D. Song et al., (2000) did not find a positive effect of job rotation on the conflict handling behaviours of marketing managers. Rouziès et al., (2005) argue that poor implementation of a

job rotation program may substantially reduce, and even negate, benefits of integration. They argue that rotating managers from one function to another might create opportunity costs, because some activities might be neglected or at least not well taken care of. Moreover, they argue that the resulting loss of functional specialization is likely to lead to impaired performance of the functional activities.

The surprising lack of influence of personnel movement on inter functional coordination in this research suggests that further studies are needed to examine the actual influence and value of this commonly implemented cross-functional enhancing method. A longitudinal study of the effect of personnel movement might provide further clarification of the value of this commonly suggested mechanism for facilitating integration and coordination.

This research argues that organisations have to provide opportunities to facilitate coordination between different functional units. These opportunities reflect the extent to which an organisation's environment is contributing to achieving a desired inter functional coordination. This research posits that opportunities which can positively impact inter functional coordination include cross functional teams and social orientation.

Analyses indicate that **cross-functional teams** have a significant and positive impact on the three dimensions of inter functional coordination. This finding supports the popularity of this mechanism as a significant integration mechanism which received relatively wide acceptance in literature (Souder and Moenaert, 1992; Pinto et al., 1993; Cooper, 1994). For example, Maltz et al., (2001) found that cross-functional team use reduce perceptions of rivalry among functional units. Likewise, (Leenders et al., 2002) found that cross-functional teams are positively associated with integration between marketing and R&D. Lawrence and Lorsch (1967) advocate the creation of coordinating groups to manage cross-functional new product development. The underlying premise for the effectiveness of this mechanism is that members of these teams learn the language of other functional units, and later act as



“translators” for others in their home functions which reduces language barriers between functions (Griffin and Hauser, 1996). In addition, the use of cross-functional teams emphasizes the importance of superordinate goals (Pinto et al., 1993). That is, managers in teams are likely to focus more on organization-wide goals, thereby reducing rivalry between functions due to differences in goals.

**Social orientation** is considered an important mechanism in enhancing integration efforts in organisation (Maltz and Kohli 2000). The underlying argument for its effectiveness is that it provides opportunities for employees to socialise and informally engage in activities that will enhance and reduce rivalry (Pondy 1967). Literature provides supporting evidence for the impact of social orientation in improving integration between marketing and other functional units and reducing conflicts (e.g., Maltz and Kohli 2000). Social orientation is operationalized by measuring how often the organization provided opportunities for informal interaction between members of multiple functions. In this research, social orientation has only a significant impact on one dimension of inter functional coordination, which is harmony of cross functional relationships. This supports the arguments that informal communication results in an improved harmony and relationships between involved parties.

A surprising result is that not only no significant relationships is found between social orientation and both quality of cross functional information and level of cross functional involvement, but that the beta coefficients suggest negative relationships. So far, not enough empirical research has been carried out on this mechanism to be able to explain these findings. However, some studies investigated the role of social orientation in different contexts and raised questions about its effectiveness. For examples, Maltz et al., (2001), in their study for testing a model of organizational and contextual variables to enhance marketing and R&D integration and the information processing behaviours of R&D found

similar effect on the effectiveness of social orientation. They did not find supportive evidence on the positive effect of social orientation on reducing rivalry between the two functional units. They also did not find any significant relationships between social orientation and the instrumental and conceptual use of market information by R&D personnel. However, contrary to our findings, their study found that social orientation improved the perception of information quality among the two functional units. Likewise, (Leenders et al., 2002) found no significant impact of social orientation on integration. They argue that informal social systems lead to more integration, only if there is little use of ICT and/or cross functional teams. In other words, informal social systems seem to have no additional benefits when ICT and/or teams are already used extensively.

## Enhancing Marketing Performance:

This section discusses results underlying the main premise of this research that inter functional coordination positively impacts marketing performance. As recommended in the literature, I used multiple measures of performance to capture the concept of enhancing marketing performance adequately as some activities may have effects on some aspects of performance but not others (e.g. Jaworski and Kohli, 1993, Clark, 2000). Hence I used the three most fundamental performance dimensions for assessing marketing performance: adaptiveness, effectiveness and efficiency (Morgan et al., 2002; Sheth and Sisodia, 2002; Vorhies and Morgan, 2003; Walker and Ruekert, 1987).

Theory and empirical research posit a positive relationship between market orientation and performance (Narver and Slater, 1990; Jaworski and Kohli, 1993; Day, 1994a; Greenley and Oktemgil, 1996). Becoming market oriented requires developing an organizational culture and processes that enable the organization to provide superior value to customers (Slater and Narver, 1994). The market-orientation process begins with acquiring

information about customers, competitors and other aspects of the market, sharing the information throughout the organization, developing an understanding of the strategic impact of the information, and making inter functional (shared) decisions with the objective of delivering superior customer value.

Inter functional coordination is argued to be at the root of successful marketing planning and implementation (Piercy and Lane, 1996). However, inter functional coordination primary value lies in its prospective in enhancing marketing and business performance. A main objective of this research is to examine to what extent inter functional coordination impact marketing performance and more specifically what aspects of marketing performance is affected by IFC. It is worth noting that there is no prior research that examined these direct relationships. Therefore, it will not possible sometimes to provide references to literature for comparison. However, discussion of the significance of finding and supporting literature will be provided.

Findings of this research indicate that two dimensions of inter functional coordination namely harmony of cross functional relationships and level of cross functional involvement positively impact marketing adaptiveness. This proves that firms have to maintain a high level of coordination between functional units to be able to adapt quickly to external environment. Market orientation literature suggests that coordination between different functional units will allow a firm to be swifter in responding to its external environment (Narver and Slater, 1990; Kohli and Jaworski, 1990). Souchon et al., (2004) in line with Krohmer et al., (2002) argue that inter functional coordination has been shown to increase the responsiveness of firms to external opportunities and threats. In fact, while Souchon et al. (2004) expected a moderating effect of inter functional coordination on the relationship between marketing information instrumental/conceptual use and responsiveness,

a direct positive relationship was found between inter functional coordination and responsiveness to marketing information which is operationalised as speed, formality, and overall quality of planning and implementation.

Contrary to expectation, quality of cross functional information did not have a significant impact on marketing adaptiveness. This could be due to the fact that information quality construct is very perceptual and showed a high variance. Another explanation could be that information quality might contribute to taking studied decisions, but it is not necessary an indicator for being adaptable and swift in response to external market changes.

Marketing effectiveness relates to the extent firms are able to achieve their market based objectives (Walker and Ruekert, 1987; Clark 2000; Morgan et al. 2002). Marketing effectiveness ultimately reflects firm's ability to implement marketing programmes successfully at various levels (Kotler, 1977). However, interpretation about the findings relating to this construct should be considered with great caution. The seven items used to manifest marketing effectiveness did not yield an acceptable reliability and validity in my sample. Though other studies used the same construct and yielded an acceptable construct reliability and validity (e.g., Walker and Ruekert, 1987; Clark 2000; Morgan et al. 2002, Krohmer et al. 2002), there were no evidence in my sample that these seven items reasonably represent one concept. The best option of using only two items to represent this construct also did not yield a reasonable reliability. The two items only tap firms' performance in attaining desired growth and securing desired market share. Therefore, caution should be taken while attempting to explain results related to this construct and findings should be considered with this limitation in mind.

Analysis showed that the three dimensions of inter functional coordination positively impact marketing effectiveness. Though quality of cross functional information impacts effectiveness at a lower significant level of  $< 0.1$ . As expected, inter functional coordination

ensures the alignment between market opportunities and threats and consumer wants to firm's capabilities. Therefore, a higher level of inter functional coordination enables a firm to provide effective marketing programs that fit the firms' objectives, meet customers' needs and gain competitive advantages.

These findings support the argument of many studies for the positive impact of inter functional coordination on sustainable competitive advantage (e.g Zinkhan and Watson 1998), achieving strategic objectives (Ruekert and Walker 1987); market orientation and business profitability (Kohli and Jaworski 1990; Narver and Slater 1990; Slater and Narver 1994, 1995).

Bonoma and Clark, (1988) defined efficiency as the relationship between performance outcomes and the inputs required to achieve them. Walker and Ruekert (1987) defined efficiency as a business programmes' outcomes in relation to the resources employed. The efficiency of marketing, sometimes called marketing productivity, has been an important area of study in marketing performance assessment as it examines how best to allocate marketing activities and assets to produce the most output.

This research findings supported the positive impact of the three dimensions of inter functional coordination on marketing efficiency. The development and implementation of marketing strategies require effective coordination between different functional units to allocate resources needed to achieve strategies objectives. Achieving coordination between different functional units involved in developing and implementing marketing programmes will ensure accurate deployment of resources to achieve the desired outcomes. Therefore, we can conclude that the coordination between marketing and different functional units could enhance the efficiency of marketing programs by reducing misallocation of resources needed to efficiently implement marketing programmes.

## ***Theoretical and Managerial Contribution***

The first contribution of this study is its utilisation of a unique and different theoretical model in investigating enhancing inter functional coordination. By drawing on a more explanatory framework (the MAO framework) provided an opportunity to analyse the roots of enhancing employees' motivation/ability/opportunity to coordinate. This research looked beyond the immediate marketing discipline for the identification, exploration, and description of the three main employees' drivers to enhance coordination. The study grouped those factors to categorise factors that could address enhancing employees' motivations/abilities/opportunities to coordinate with other functional units in achieving organisation's goals. This classification is deemed significant in achieving the desired behaviour of coordination. Therefore, this study supports the importance of finding an alternative theories and models in establishing factors and mechanisms to improve inter functional coordination. In this regard, the research targeted addressing what enhance employees' motivation/abilities/opportunities' to coordination and hence improving marketing performance.

By testing my model in the Egyptian context, I demonstrated the persuasiveness of the importance of inter functional coordination and its role in enhancing marketing performance. My study suggests that inter functional coordination aspects of the theory and practice of market orientation have achieved relatively widespread diffusion.

This research is one of a few attempts in management literature to incorporate perspective of different functional units in examining the effectiveness of some control mechanisms on inter functional coordination and marketing performance. It goes beyond the dyadic relationships between marketing and any other different functional unit and incorporated perspectives of different functional units. As noted by Fisher, Maltz and Jaworski (1997), cross-functional relationships within organizations consist of individuals

with different world views. Consequently, a general analysis of the perspective of different functional units on the usefulness of some mechanisms in enhancing inter functional coordination reveal interesting findings about the differences as well as potential similarities between different functional units. Accordingly, a primary contribution of this study is the incorporation of multiple functional perspectives. The research depended on multiple informants from each firm for measuring the different research constructs, thus, avoiding possible common source bias. This methodology was in response to past researches which have called for providing perceptions of multiple functional areas on the grounds that perceptions differ among functions (Maltz and Kohli 2000; Song et al., 2007). Most of the previous research in marketing has focused on interactions between marketing and one other function, primarily R&D. Despite the fact that inter functional coordination requires researchers to elicit perceptions from all relevant functions, very little research of this nature has been done. In the present study, I argued that it is critical to investigate the different functional units perspectives on factors to enhance inter functional coordination in order to identify the real effectiveness of these factors.

Another methodological contribution of this research is its attempt to explore marketing concepts in a different cultural context. There is scarcity in management research in Middle Eastern countries; hence, we lack understanding of the generalisability of Western theories and models in these countries. Based on prior field research (e.g, Workman et al.,1998), attitude towards marketing differed across countries which calls for further research to test if major marketing concepts generalize across cultural settings. As Homburg et al. (1999) suggested marketing's influence or role in firms differs across countries They also argue that many of developing countries are in transition from economic systems in which marketing activities are severely constrained, the infrastructure to support marketing and distribution activities is poorly developed, and the societal attitudes toward marketing are

different than those in the United States and Western Europe. They also suggest that marketing's influence may be linked closely to societal attitudes, economic development, and legal restrictions, and that empirical research is needed to assess that possibility.

## Managerial Implications:

The findings of this empirical investigation generate a number of valuable implications for managers in their efforts to enhance inter functional coordination and marketing performance. From a managerial perspective, it is worth emphasizing that investing in mechanisms to enhance inter functional coordination can pay off as it enhances marketing performance. Managers should be aware of these benefits and try to maintain a high coordination between functional units and obtain involvement and influence of other functional units over key marketing activities. The research helps managers in achieving this goal by empirically identifying and examining activities and mechanisms that could significantly improve the level of inter functional coordination. Analysing these factors and their influence on the different dimensions of inter functional coordination provides important insights of the effectiveness of each mechanism. Therefore, identifying these factors and mechanisms will assist companies in their pursuit for enhancing inter functional coordination and improving their marketing performance.

The research specifically suggests that some mechanisms and tools can be applied for enhancing inter functional coordination. Joint reward systems, resource dependency, and the use of cross-functional teams proved to be effective in improving inter functional coordination. Furthermore, creating culture norms that encourage cooperation in terms of solidarity and resolving conflicts improves both cross functional relationships and marketing performance.



Finally, managers also need to be aware that not all combinations of dimensions of inter functional coordination are considered a panacea for enhancing marketing performance. Managers should further understand why some dimensions of inter functional coordination may not, under certain situations, help in enhancing marketing performance. Although an attempt has been made in this study to develop generalizable conclusions, marketing managers must appreciate the uniqueness of their particular organizational circumstances and develop contingencies to meet them.

### ***Limitations and Directions for Future Research:***

One limitation of this study was the use of self-reported questionnaire. Although self-reported surveys have a long history in social science research, they bring with them the problems of the accuracy of self-report and common method variance (Phillips, 1981). A limitation of this approach is that respondents may not always have good knowledge on all issues investigated. The use of multiple respondents could have overcome this potential drawback. Another limitation in this research is that the measures used to assess the research constructs were all perceptual. Although objective financial performance measures would have been more desirable, the researcher decided to use perceptual measures of performance mainly for two reasons. First, financial performance measures such as ROI or ROA are hard to be acquired from Egyptian firms. It is worth noting that in the Egyptian context, it is very difficult to obtain financial information. Even if this information is available sometimes, the accuracy and transparency of this information is a major concern. Second, perceptual performance measures have been shown to have a high correlation with objective financial performance measures, which supports their validity (e.g., Dess and Robinson, 1984; Venkatraman and Ramanujam, 1986, 1987). Finally, although this study used well-established operationalisations for the research constructs to minimize measurement error, some of our measurement scales exhibited low reliability. The relatively low reliabilities found with a few measures suggest that caution should be used in the interpretation of results.

The limitations of the study constitute potentially valuable avenues for future research. First, an important avenue for future research arises from the limitation imposed by the descriptive, cross-sectional research design employed. The static data collection process employed in this research does not provide an opportunity to trace the effect of employing certain mechanisms in enhancing inter functional coordination. Future research could adopt a longitudinal perspective. This would allow the examination of the influence of changing

contingencies on the use of different mechanisms to enhance inter functional coordination over time. Further, a longitudinal approach could provide useful insight by unravelling how firms learn and adapt their interfunctional coordination mechanisms over time. Further research could augment our study by longitudinally tracking the influence of some managerial controls on enhancing interfunctional coordination and marketing performance. Monitoring organizations longitudinally when they are implementing—or increasing the use of—new mechanisms, could offer valuable insights into the dynamic aspects behind the use and effects of coordination mechanisms. Such approach allows for a ‘true’ assessment of the effectiveness of coordination mechanisms

Second, as mentioned in the limitation section, performance measures used in this research is self-reported, perceptual, and relative. Olson, Walker, and Ruekert (1995) argue that these kinds of measures are justified because organizations are hesitant to share confidential data. However, further research should attempt to use more objective measures to assess marketing performance to provide more confidence in the relationships between inter functional coordination and marketing performance.

Thirdly, as suggested throughout this research that the MAO theory provided a promising theoretical framework, an important research venue will be to consider the MAO dimensions as latent constructs and develop measurement scales to them. Conducting this research will impact significantly the literature as it will allow testing relationships between organisation factors as antecedents for coordination and its relationship with the latent constructs motivation to coordinate, ability to coordinate, and opportunity to coordinate. The MAO model also suggests that the motivation behaviour relationship is moderated by ability and opportunity to behave. Therefore, it will be interesting to test if this proposal could be tested with the constructs used in this research.

Finally this paper adds to prior studies that have merely noted that there is a need for integration between marketing and other functional units. It takes extant research one step further, by providing empirically based insights into specific mechanisms that may facilitate coordination. The researcher hopes that this study will stimulate additional work to better understand the process by which coordination between marketing and other functional units can be improved which will significantly impact marketing performance.