Reaping Benefits from Knowledge Transfer – The Role of Confidence in Knowledge

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Abstract

Purpose

This paper seeks to develop a conceptual model that examines the role of individual's confidence in the transferred knowledge in realizing benefits from such transfers. In so doing, the paper attempts to address the gap in the KT literature pertaining to the inability of recipients to gain benefits from incoming transferred knowledge.

Design/methodology/approach

The conceptual model has been developed by drawing from the literature on socio-cognitive approaches by employing psychological variables (individual level differences in need for closure, regulatory focus, and self-efficacy) and contextual factors including perceived novelty of knowledge and positive feedback from social interactions affecting confidence in incoming knowledge.

Findings

The conceptual model builds on the socio-cognitive perspective and explores some of the important issues that could contribute to the individual's adeptness (or lack thereof) in deriving benefits from transferred knowledge thus addressing a vital gap in strategy and management literature.

Originality/value

The paper introduces the concept of confidence in knowledge to the KT literature, which could lend valuable insights pertaining to deriving benefits from transferred knowledge. In addition, by highlighting the role of important individual specific constructs in determining the ability

to gain benefits from KT, the paper makes a significant contribution to the stream of research on the micro-foundational bases of strategy. Finally, exploring perceived novelty as a knowledge attribute in this paper adds an interesting perspective to the individuals' perception of the target knowledge quality and the resulting confidence in the incoming knowledge, which could in turn be moderated by individual differences.

Keywords: knowledge transfer, confidence, motivated cognition, novelty, socio-cognitive

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Introduction

In the modern knowledge-based economy, firms attribute considerable importance to knowledge transfer that enables them to tap into the competencies and resources dispersed globally (Almeida, Song, and Grant, 2002; Bartlett and Ghoshal, 1989). Not surprisingly, in order to develop competitive advantage, firms often encourage their employees to engage with knowledge transfers with other organisational units that could prove to be beneficial for organizations in terms of solving problems, improving productivity and efficiency, and creating innovative products/services. For this, transferred knowledge needs to result in benefits for the firm, which is possible only if further action is taken on this incoming knowledge. When potentially beneficial knowledge is transferred, the initial recognition, interpretation and assessment of this knowledge happens at the individual level (Argote and Ingram, 2000; Crossan, Lane, and White, 1999; Daft and Weick, 1984). An individual could accept or reject this new and useful knowledge, which in turn determines the possibility of further action being taken on this knowledge. Thus, it is important to understand the individual level factors that could affect the possibility of deriving benefits from incoming transferred knowledge.

Firms often initiate knowledge transfers between their organisational units so that other organisational units can tap into the same and reap benefits for them. However, it is unlikely that all individuals or employees engage or interact with this knowledge in ways to transform this to something that could be beneficial to the firm. There could be several reasons for individuals to accept or reject the potentially beneficial new incoming knowledge. This could be because of the individual's perceptions of the incoming knowledge that are linked to

consistency with his/her belief system, relevance and benefit to the context, and disturbing the status-quo (Eidelman, Crandall, and Pattershall, 2009). Such perceptions are the outcomes of cognitive filtering that affect the evaluation process and subsequently results in a certain level of confidence associated with taking further action on this knowledge (Daft and Weick, 1984). Based on their socio-cognitive schema, some individuals may be quick to discard potentially useful knowledge, while there could be others who are keener to accept and process this new knowledge. For example, an employee may not engage in a deeper analysis of the useful incoming knowledge or find alternatives to use it. This may be because the individual perceives challenges in this process, and might not want to disturb his/her current status-quo by taking up this challenge or the individual is not sure if he/she will emerge successful in this challenge. So the easier way for such individuals is to discount the incoming knowledge (despite its usefulness), and their socio-cognitive schema contributes to this. Knowledge is related to action (Hawthorne and Stanley, 2008). Hence, the benefits from the transferred knowledge can be realized only when further action is taken on the same.

Thus, for the transferred knowledge to be put into action, individuals need to have confidence in this incoming knowledge (Pillai and Goldsmith, 2006), which in turn will help realize benefits from the same. Specific to the context of this analysis, confidence can be defined as the strength of belief within the individual that the incoming knowledge has the potential to yield benefits for the organisation. Confidence and its effects on decision-making are aspects that have attracted the attention of a variety of scholars including psychologists and philosophers (Fischhoff, Slovic, and Lichtenstein, 1977; Yates, Lee, and Bush, 1997). Confidence arises following the individual's interpretation and assessment of the incoming knowledge. Given the documented effects of confidence on decision-making, it can have a direct effect on the individual's decision to employ or reject the incoming knowledge in a knowledge transfer context.

Following from the above discussions, it is evident that the concept of confidence in incoming knowledge offers potential new insights in the domain of knowledge transfer. Scholars (Argote and Ingram, 2000; Becker-Ritterspach, 2006; Ringberg and Reihlen, 2008) have often pointed out that little is known about what happens to the knowledge (in the receiving context) resulting from knowledge transfer (KT), especially when it comes to the role of individual actors who first detect this incoming knowledge, assess it and take it forward. This lack of focus on micro-level mechanisms has been largely attributed to the unit of analysis, which is often at the firm level (Felin and Foss, 2015; Foss and Pederson, 2004). This is true with respect to the vast majority of the extant KT literature as well (Ambos and Ambos, 2009; Dhanaraj et al., 2004; Gupta and Govindarajan, 2000; Lind and Kang, 2017). Although confidence as a concept has been widely used in psychology and decision theory (Alba and Hutchinson, 2000; Yates et al., 1997), it has not been utilized in the KT literature, in spite of the significant role it can play to influence the individual's decision to engage further with the incoming knowledge. This paper seeks to address this gap.

The paper builds on the socio-cognitive approaches (Garud and Rappa, 1994; Ringberg and Reihlen, 2008) in identifying psychological variables that are at the interface of motivation and cognition (De Grada *et al*., 1999; Jost *et al*., 2003), as factors affecting confidence in incoming knowledge. The individual level variables linked to motivated cognition that have been employed in this paper are need for closure, regulatory focus, and self-efficacy. The effects of motivated cognition on the confidence of individuals have been seldom investigated in KT literature, which this paper attempts to address.

Socio-cognitive approaches also highlight the influence of context and how individuals make sense of new knowledge (Ringberg and Reihlen, 2008) based on their social interactions. The kind of feedback they receive from these social interactions are likely to influence the individual's confidence in the incoming knowledge. The knowledge context is equally relevant

in terms of its attributes such as its perceived novelty as it is can either boost (in anticipation of the perceived benefits) or stifle (due to the limitations in cognitive capabilities) the recipient's confidence in the incoming knowledge (Grant, 1996; Smith, 2016). Thus the link between individual's confidence and perceived novelty of target knowledge is very significant to deriving benefits from this incoming knowledge. Hence, this paper explores the influences of positive feedback from social interactions and perceived novelty on individual's confidence in incoming knowledge.

The paper makes four important contributions to the literature. First, the model builds on the socio-cognitive perspective and explores some of the important issues that could contribute to the individual's adeptness (or lack thereof) in deriving benefits from transferred knowledge thus addressing a vital gap in strategy and management literature. Second, by highlighting the role of important individual specific constructs in determining the ability to gain benefits from KT, the paper makes a significant contribution to the stream of research on the micro-foundational bases of strategy. Third, the paper introduces the concept of confidence in knowledge to the KT literature, which could lend valuable insights pertaining to deriving benefits from transferred knowledge. Finally, exploring perceived novelty as a knowledge attribute in this paper adds an interesting perspective to the individuals' perception of the target knowledge quality and the resulting confidence in the incoming knowledge, which could in turn be moderated by individual differences.

Theoretical Background

Prior research on the extent of KT (Ambos, Ambos, and Schlegelmilch, 2006; Dhanaraj *et al*., 2004; Gupta and Govindarajan, 2000; Morgulis-Yakusheva, Yildiz, and Fey, 2018; Yang, Mudambi, and Meyer, 2008) and on benefits, effectiveness and efficiency of KT (Ambos and Ambos, 2009; Lind and Kang, 2017; Nair et al., 2018; Szulanski, Capetta, and Jensen, 2004) has been firm-level studies that mostly focus on organizational characteristics and mechanisms

as the main antecedents. These include antecedents like absorptive capacity, communication and socialization mechanisms, learning environment, autonomy & control, knowledge attributes, and reward mechanisms to name a few (cf. Michailova and Mustaffa, 2012; Zeng, Grøgaard, and Steel, 2018). Some studies also focus on the relationship between the involved firms or unit, emphasising the role of social capital (Khan, Lew, and Sinkovics, 2015; Muthuswamy and White, 2005; Parra-Requena *et al*., 2015). Socio-cultural linkages could also play a vital role in knowledge transfers (Sarala et *al*., 2016). Studies have also looked at the role of boundary spanners and expatriates in KT (Reiche, 2011; Wang *et al*., 2009).

The extant literature has explored several aspects that could influence KT, which include factors like absorptive capacity, organisational resources, expertise, communication and integrative mechanisms, motivational mechanisms, structure, and networks (Chen, 2004; Goh, 2002; Guechtouli, Rouchier and Orillard, 2013; Gupta and Govindarajan, 2000; Reagans and McEvily, 2003; Sié and Yakhlef, 2009; Tasi, 2001; Yang, Mudambi, and Meyer, 2008). Against this background, this paper seeks to probe the lesser explored and vital role of individuals as decision makers, who are evaluating, interpreting and engaging further with this incoming transferred knowledge. It seeks to examine in depth as to why certain individuals are more likely to gain confidence in the incoming knowledge than others and subsequently gain benefits from this potentially useful transferred knowledge. Note that the focus is on potentially useful knowledge that is transferred from other organisational units in the firm. Thus, the transferred unsuitable or obsolete knowledge as possible reasons for the lack of benefits is not really the focus of this study. Rather, it explores the factors that lead to the effective use or otherwise of transferred knowledge from other organisational units that has potential utility to the recipient. Such knowledge transfers are mostly planned and initiated by the firm (deliberate attempts) to other units within the organisation since they foresee potential benefits from the same. To further delimit the focus of the paper, only the transferred explicit (procedural and

declarative) knowledge has been considered. Since the transferred knowledge comprises mainly codified information, we adopt a reductionist view of knowledge for the purpose of the present analysis. Further research can extend the analysis to the study of transferred tacit knowledge. Thus, this paper explores the critical role of confidence in transferred knowledge and the antecedent effects of individual specific and contextual factors that could lead to confidence in the transferred incoming knowledge.

In so doing, the paper contributes to the investigation of micro-foundations of organisational capabilities. In most of the above-mentioned studies, individual level factors have received little or no attention. Moreover, scholars have been increasingly questioning this disembodied concept of knowledge (Garud and Rappa, 1994; Ringberg and Reihlen, 2008), which has paved the way for a socio-cognitive perspective that views knowledge as endogenous to the human mind, thus reinforcing the call for more studies that investigate the micro-foundations of organizational capabilities (Felin and Foss, 2015). This paper addresses the call.

Socio-Cognitive perspective

The socio-cognitive perspective is an approach to understanding human social behaviour, which involves mental processes of individuals while interacting with others in their environment (Martin and Clark, 1990). As per this perspective, KT can be viewed as the interplay of cognitive and contextual factors, which is an interpretive process (Reihlen and Ringberg, 2013; Ringberg and Reihlen, 2008). According to the socio-cognitive view, both private and shared mental models are involved in the processing of incoming knowledge.

Social Cognitive Theory (SCT), which belongs to this stream of literature, focuses on human behavior linked to cognition and personality as well as contextual influences (Bandura, 1986). As per this theory, human motivation and action is self-regulated by forethought (anticipatory system), which means that individuals anticipate certain outcomes as a result of

their actions. These outcomes then motivate as well as regulate their choices, strategies, behavior, actions etc. SCT focuses on two types of cognition (Fiske, 1992; Kruglanski, 1990) - pure social cognition as well as motivated cognition (interface of cognition and motivation, also known as cognitively generated motivation). Motivated cognition refers to the links between individual's beliefs and his/her motivational underpinnings (Higgins, 1998; Kruglanski, 1996). Motivated cognition focusses on the role of cognition in regulating behaviours and actions taking into consideration the interaction effects (social context) and goes with the notion that "thinking is for doing" (De Grada *et al*., 1999), which is very important in the context of deriving benefits from KT.

Most of human motivation is cognitively generated (Bandura, 1993). Thus, individuals motivate themselves by anticipating likely outcomes for their actions or behavior. Here there is a self-regulation of motivation (also referred to as self-regulatory cognition) and self-efficacy plays a key role in this self-regulation (Bandura, 1991). It is an integral element of SCT. Individuals with high self-efficacy have a strong belief that they are capable of successfully performing a certain action in order to attain a certain desired outcome. They attribute lack of effort to failures. This belief they have in their capabilities can influence the choices they make, the effort they put in and how they persevere in challenging situations (Bandura, 1991). Thus, self-efficacy has the ability (cognition that can generate motivation) to influence action and is directly linked to behavior as it affects one's confidence to engage with a certain task. An example of this would be employees with high self-efficacy setting more challenging goals for themselves (like applying knowledge transferred to solve problems or find new solutions), and then focus their entire effort towards this, not relenting when faced with obstacles or difficulty and hence are also likely to be more confident that they will achieve what they set out to do.

As discussed earlier, self-regulation is a vital aspect of SCT. Individuals engage in self-regulation by aligning themselves (their behavior, thought and action) to appropriate goals or

standards (Higgins and Spiegel, 2004). Regulatory focus is a construct (linked to cognition) which taps into two self-regulatory mechanisms in individuals, namely promotion focus and prevention focus (Higgins, 1997). Individuals with a promotion focus are driven by the need to achieve growth and accomplishment. Hence, they eagerly pursue their goals and seek pleasure via positive outcomes. Individuals with a prevention focus are driven by the concern for stability, safety and caution. They try to minimize negative outcomes. Hence, when engaged in a task, the individuals with promotion focus are more likely to generate more distinct alternatives when compared to individuals with prevention focus (Crowe and Higgins, 1997). This is a construct which influences individual's motivation that is relevant to goal accomplishment and hence can affect individual's strategic inclinations and tactical preferences (Higgins, 1998). It also has been found to have an effect on judgmental processes, and initiating goal related action (Higgins and Spiegel, 2004). Thus, promotion-focused individuals are found to be more optimistic and exude more confidence when compared to prevention-focused individuals, who are more pessimistic (Brockner, Higgins and Low, 2004). For example, promotion focussed employees would have a very positive outlook towards work and are looking for ways to learn, grow and boost their achievements to derive pleasure from these positive outcomes. They are quick to embrace changes as they are open to new possibilities and do not hesitate to take risks to accomplish their goals and hence are more likely to engage with the knowledge transferred in novel ways and derive the required confidence to use it for the benefit of the organisation.

Need for closure (NFC) is the need for individuals to attain an immediate decision on an issue (seize – urgency tendency) and to stick to a particular decision (freeze – permanence tendency) without considering alternatives (Webster and Kruglanski, 1994). Individuals with a high NFC tend to prefer consensual knowledge (De Grada *et al.*, 1999). This is motivated cognition which is linked to decision making (Roets and van Hiel, 2011). Hence, NFC is the

motivated tendency to seek structure, simplicity and avoiding complexity or ambiguity (Kruglanski, 1990). This is found to affect problem solving and seeking alternatives (Webster and Kruglanski, 1994) and is closely linked to information seeking and confidence (Kruglanski, Peri and Zakai, 1991). Hence, NFC, a motivated cognition construct, also comes under the realm of SCT and has an influence on individual's decisions, as well as his/her actions and behavior. As an example, an employee with a high NFC, is very likely to struggle when faced with a challenging task (which may not yield an answer immediately). Hence, such individuals may not seek all alternatives (while engaging with transferred knowledge), and may prefer to either fall back on something that he/she is already familiar with (quick decisions, but may not be the best) or something that is readily available. They may also be reluctant to change their stance on this new knowledge or process this knowledge, even in the light of new persuasive insights that may emerge. Thus, they may also quickly form impressions and be quick to discard the knowledge as well.

The role of the individual

For individuals engaged with the incoming knowledge during a KT, the initial task is to make sense of this knowledge. Individuals make sense of new knowledge by attempting to justify this knowledge and interpreting it (Crossan *et al*., 1999; Nonaka and Takeuchi, 1995). The individuals' cognitive framework, expertise, and experience can influence this process. The incoming knowledge would be filtered through cognitive and normative interpretations of individuals within the organization (Inkpen and Dinur, 1998; Regner and Zander, 2011) which will eventually determine the individual's confidence in this knowledge as depicted in figure 1.

Insert Figure 1 here

According to the theory of reasoned action, individuals' beliefs pertaining to a domain determine their perceptions, behaviour, and the choices they make within the domain (Ajzen and Fishbein 1980). As per the socio-cognitive view, the individual's beliefs and perceptions about knowledge are very closely intertwined with their contexts, their interactions with this context and the shared identities they have formed in the organizational context (Bandura, 1986). The social interactions that they have with peers and other colleagues within their network can provide the required feedback and external validation that individuals often seek while encountering new knowledge (Simonet *et al*., 2015; Tsai, 2001). All these can potentially influence individual's private mental models (Jonsson and Regner, 2009) and can thus influence the individual's confidence in the incoming knowledge and the further processing of this knowledge.

Confidence in the incoming knowledge

Confidence is defined as the strength of belief within the individual that the incoming knowledge has the potential to yield benefits and hence is worthy of further processing. Confidence is linked to individual's socio-cognitive processes and is important because it affects the further course of action (Sniezek, 1992). Individual's anticipatory proactive system plays a vital role, as cognitively generated motivation, which enables individuals to engage with meaningful cognitive processing and choice of appropriate cognitive strategies that could generate the required confidence in knowledge (DeBacker and Crowson, 2006; 2009; Morandin and Bergami, 2014). Confidence will also be influenced by social aspects such as opinions and beliefs of others, through shared sense-making processes (Gioia and Sims, 1986; Maitlis and Christianson, 2014). Social information processing theorists (e.g., Boekhorst, 2015; Salancik and Pfeffer, 1978) have demonstrated how this transmission of beliefs takes place. Following this stream of research, we reason that confidence generation in individuals, in the

context of KT, is essentially a socio-cognitive process, underscoring the relevance and validity of the current enquiry.

Individuals differ in terms of their confidence related to knowledge and information, with some individuals holding a certain piece of knowledge with a high degree of confidence, whereas others hold the same with much less confidence. In the psychological literature, confidence in knowledge refers to the strength of belief in the veracity of the knowledge held (Alba and Hutchinson, 2000). For this study, as noted earlier, confidence can be defined as the strength of belief within the individual that the incoming knowledge has the potential to yield benefits and hence is worthy of further processing. When there is high confidence, the subject has a stronger belief (greater certainty) that the transferred knowledge will yield benefits. Conversely, when there is low confidence, the subject has doubts whether the transferred knowledge will yield benefits. The study of confidence in knowledge, which we seek to introduce to the context of KT, has its roots in psychological research on calibration of knowledge and beliefs (Fischhoff, Slovic, and Lichtenstein, 1977).

As noted earlier, the focus in this paper is on knowledge that has potential utility, which therefore demands high confidence. When there is high confidence in such useful knowledge, it leads to appropriate actions such as optimal decisions. When there is low confidence, we have the situation of underconfidence (low confidence in a situation where there should be high confidence), which leads to redundant information search and missed opportunities. Following from the earlier discussion, underconfidence can arise as a result of socio-cognitive processes that generates doubts in managers' minds regarding the utility of the knowledge received. Therefore, generating appropriate levels of confidence is critical to deriving benefits from the useful transferred knowledge.

Following from the above discussions, individual's cognitive framework, specifically linked to cognitive motivation influences his/her confidence in the incoming knowledge.

However, unfamiliarity pertaining to knowledge (leading to lack of confidence in knowledge) also arises from the perceived novelty of knowledge, which could potentially make it more difficult to comprehend and interpret it and thus raises the risk of handling such knowledge (Witt, 2009). The interaction of the individual with the context in terms of his/her social interactions could also influence the way this incoming knowledge is interpreted and evaluated. This occurs mainly through the feedback emerging from the social interactions and the normative interpretations or perceptions that arise from the shared identities that individuals share in the organization (Levin and Cross, 2004; Simonet *et al*., 2015). These feedback and perceptions that are contributed by the context play a vital role in validating individual's perception of the knowledge and the confidence in the knowledge regarding its potential benefits.

Propositions for the model

In this section, we develop propositions for each of the paths as shown in the model in figure 2. We start with the individual specific variables.

Insert Figure. 2 here

Confidence

Confidence in knowledge is a concept that has attracted much attention from scholars in psychology and decision theory (Alba and Hutchinson, 2000; Yates *et al*., 1997, Pillai, 2010). Since knowledge is about action (Nonaka and Takeuchi, 1995), and appropriate confidence in knowledge is a prerequisite for right decisions (Alba and Hutchinson, 2000), this is a very useful concept. Studies have shown that significant proportions of people could be underconfident in their knowledge and perceptions (Bjorkman, Juslin, and Winman, 1993; Erev, Wallsten, and Budescu, 1994; Subbotin, 1996). This is especially relevant to the present

study, where the novelty of the incoming knowledge and its unfamiliarity can diminish the confidence in the usefulness of this incoming knowledge. Therefore, we reason that individual recipients could be underconfident in the incoming knowledge.

In a KT context, when the confidence associated with the incoming knowledge is *low*, individuals do not act upon the knowledge that they possess, leading to missed opportunities. On the other hand, when the confidence is *high*, individuals process this knowledge further (act on the knowledge), which in turn leads to realization of benefits from such knowledge. This is based on the premise that benefits can be achieved from incoming knowledge, when it is deemed actionable and is potentially put to use to achieve some end (Nonaka and Takeuchi, 1995). In the context of KT, if the individual has a higher level of confidence that they can potentially work with this knowledge to yield benefits from this knowledge, then he/she is more likely to act on this knowledge to derive the projected benefits.

Proposition 1: Greater the level of confidence the individual has in the incoming knowledge, greater the benefits derived from the knowledge.

Need for closure

Need for closure refers to an individual's "desire for a firm answer to a question, any firm answer as compared to confusion and/or ambiguity" (Kruglanski 2004, p. 6). Individuals with a strong need for closure experience a desire to achieve a sense of closure and maintain this (Kruglanski, Pierro, Mannetti, and De Grada, 2006). Thus, this socio-cognitive construct taps into the motivated tendencies (Livi *et al*., 2015) that prefer structure, predictability, decisiveness, discomfort with ambiguity, and close-mindedness (Webster and Kruglanski, 1994). Need for closure is considered one of the vital motivational aspects that affect the cognitive-generation process (DeBacker and Crowson, 2006). Cognitive-generation is a process wherein knowledge is evaluated prior to being abandoned or accepted, which is very relevant in this context for individuals engaged in assessing the incoming knowledge since this

affects the confidence they have in this knowledge. The assessment and interpretation of the incoming knowledge, which happens at the individual level, is to a large extent responsible in generating the required confidence to act on this knowledge. However, for individuals to engage effectively in this assessment and interpretation, they need to have favourable cognitive and motivational dispositions that aids them in this process.

Individuals *high in need for closure* often tend to frame questions in more abstract terms (Rubini and Kruglanski, 1997). They are also likely to engage in less systematic processing of information (DeDreu, Koole, and Oldersma, 1999; Kruglanski *et al*., 2006). Hence, individuals who have a *low need for closure* are more motivated to have more meaningful cognitive engagements with the incoming knowledge (leading to better assessment and interpretation of this knowledge) than those with high need for closure, who are likely to resort to more shallow cognitive engagements (DeBacker and Crowson, 2006). All these results point to the marked preference of high need for closure individuals for a stable, ordered world. As Kruglanski (2004) note, the construct facilitates the formation of crystallized knowledge. Not surprisingly, need for closure has been shown to be correlated with intolerance of ambiguity (Frenkel-Brunswick, 1949).

The incoming knowledge, which is new to the individual's context (as recipient), will create a certain amount of unfamiliarity as to its potential utility. In this context, individual recipients who have *high need for closure* are likely to not engage in deep processing and search for answers and potential alternatives that are required to make sense of the new knowledge in its context and come up with novel ways to employ the knowledge. They are also likely to discount the incoming knowledge (without adequate assessment or interpretation) as it has the potential to disrupt the stability of their world. In addition, they are less likely to tolerate the ambiguity related to the new incoming knowledge and its further processing. Individuals with *low need for closure*, on the other hand, will engage in deep processing of this

incoming knowledge and strive to make sense of the new knowledge and derive confidence from the same.

Proposition 2: The lower an individual's need for closure, the greater the confidence in transferred knowledge.

Self-efficacy

Bandura (1977) defined self-efficacy as a person's judgements of his/her capabilities to organize and execute the courses of action to attain specific designated goals. The construct is an important component in social cognitive theory. Bandura (1977) identified three dimensions of self-efficacy - magnitude, generality, and strength. Magnitude refers to individual's efficacy expectations regarding tasks that are simple, moderately difficult, and very difficult. Generality refers to the domain generality of individual's self-efficacy beliefs-whether the self-efficacy beliefs extend beyond the specific domain to other related and even unrelated domains. Strength refers to the confidence with which efficacy beliefs are held. Weak self-efficacy beliefs are easily affected by disconforming experiences, whereas strong efficacy beliefs are not.

People form self-efficacy beliefs through vicarious experiences, verbal persuasion, performance accomplishments, and physiological states (Bandura, 1977). Self-efficacious managers are therefore more adept in modelling vicarious experiences and learning from them. Self-efficacy beliefs are formed from past successes and hence these managers are likely to have more instances of successful experiences. Research has also recorded the relationship between self-efficacy and persistence in effort (Multon, Brown, and Lent, 1991). Individuals with higher self-efficacy beliefs are also found to invest more in learning (Bassi *et al*., 2007).

Individuals with *high self-efficacy beliefs* are more motivated to engage in behaviours that demonstrate persistence and hard work, especially when faced with difficult situations (Bandura, 1997; Schunk, 1981). In the context of KT, where the individuals have to evaluate

and interpret the incoming knowledge, assess different alternatives and make judgements based on the knowledge they possess, they face a lot of challenges and uncertainties. In these situations, self-efficacy beliefs determine their individual perception of the challenges involved and the belief in one's capabilities to remain committed to the task at hand (Salanova *et al.*, 2014). Self-efficacy beliefs influence the manner in which individuals motivate themselves, think and behave. They have a vital role in the self-regulation of motivation and hence are considered a key source of cognitive motivation (Bandura, 1991, 1993). Thus, individuals with high self-efficacy beliefs may persevere more with the effort required to interpret and assess this incoming knowledge, and generate more possibilities to create benefits from this knowledge.

Individuals with *low self-efficacy beliefs* on the other hand will be easily deterred by the challenges encountered with assessing and interpreting this new incoming knowledge. They may believe that they do not have the required skills or capabilities to engage with this knowledge and may not be motivated enough to further derive benefits from the same. Therefore, individual recipients high in self-efficacy are more likely to make greater sense of the incoming knowledge and come up with effective ways to utilize the knowledge, given their wider experience with achieving success, facing challenges, and their ability to learn vicariously. Hence, they are more likely to gain confidence in the incoming knowledge as a result of their effective interpretation and assessment of this knowledge.

Proposition 3: Greater an individual's self-efficacy, the greater the confidence in transferred knowledge.

Regulatory focus

According to the regulatory focus theory (Higgins, 1987, 1997), two types of foci - promotion and prevention- underpin people's behaviour. Regulatory focus is a motivational condition (motivated cognition), where some individuals are more motivated to move towards desired

outcomes (promotion focus) while others are more motivated to move away from undesirable outcomes (prevention focus) (Higgins, 1998). Promotion-focussed individuals are motivated to engage in behaviours that align themselves with their ideal selves by seeking to maximize the product of their outcome expectations and outcome valences (Crowe and Higgins, 1997). Promotion focussed individuals are also more creative, extraverted and learning oriented (Baas, De Dreu, and Nijstad, 2008; Gorman *et al*., 2012) when compared to prevention focussed individuals.

We draw from two important findings from this stream of research to argue that promotion and prevention focused individuals are likely to differ in their ability and motivation to make sense of the incoming knowledge and further utilize it. First, research has recorded that *prevention focused individuals* are more sensitive to losses (Trudel, Murray, and Cotte, 2012), and display a conservative bias in decision-making (Crowe and Higgins, 1997). We infer that individuals with a *prevention focus* are more likely to be conservative in their decisions and are likely to discount innovative opportunities to put the incoming knowledge to use, that depart from conventional mode of thinking and entail a certain amount of risk. On the other hand, *promotion focused individuals*, uninhibited by the conservative bias and loss aversion, are able to come up with creative ways to employ the incoming knowledge, which enhances confidence in knowledge.

Second, it has been shown that *promotion focused individuals* are more likely to engage in relational processing of information whereas *prevention focused individuals* are more likely to engage in item level processing of information (Zhu, 2003). Relational processing of information focuses on similarities, connections, and interrelationships among the knowledge items as well as between these items and relevant external knowledge. Item level processing, on the other hand, focuses on the specific details of each item (Hunt and Einstein, 1981). Through relational processing of the received knowledge, promotion focused individuals are

likely to generate multiple hypotheses regarding the possible uses of the incoming knowledge, which leads to greater confidence in the knowledge. On the other hand, prevention focused individuals, through item level processing, are not likely to generate several hypotheses, and their confidence in knowledge will remain low.

Proposition 4: Promotion focused individuals are likely to gain more confidence in the transferred knowledge when compared to prevention focused individuals.

Positive feedback from social interactions

Social interaction in an organisational context is the extent of interaction that the individual engages with others in his/her network, which in this case could be peers within the organization. This has been often used in several studies as representing the structural element of social capital (Tsai and Ghoshal, 1998; Nahapiet and Ghoshal, 1998). The extent of interaction depends on the ties that the individual has established within his organisation. Such interactions provide channels for mutual exchange of ideas and information and has been found to cater to knowledge exchanges and KT (Inkpen and Tsang, 2005; Lane and Lubatkin, 1998). Social interactions facilitate collective learning and repeated interactions create an environment of reciprocity and mutual obligation (Muthuswamy and White, 2005).

As per the socio-cognitive view, individuals interact with others in their organization and during these interactions, the views, opinions, and concepts from others could be used to form their own meaning of the incoming knowledge (Simonet *et al*., 2015). Common meanings are formed by way of such interactions (Tsai, 2001), mainly through feedback. Feedback can improve individual's learning and can also motivate them to pursue their efforts (Belschak and Den Hartog, 2009). Such feedback from colleagues within the organisation could also help them get their approval and verification (external validity) for the individual's own ideas and concepts pertaining to the new knowledge. This in turn could help them gain more confidence in the incoming knowledge. Hence the type, quality and nature of cues emerging from these

social interactions (Simonet *et al*., 2015), are likely to affect the confidence building process. Prior research has noted the role of feedback in enhancing calibration of confidence judgments (Lichtenstein and Fischhoff, 1980), which in the present context results in better confidence. Individuals often have the tendency to seek affirmative opinions from peers as part of their social exchanges (Simonet *et al*., 2015), which could boost confidence in the incoming knowledge. Affirmative interactions can thus earn better appreciation and approval for the new knowledge, which will promote the required confidence to engage further with the incoming knowledge.

Proposition 5: Greater the extent of positive/affirmative feedback that individuals receive (in support of the incoming knowledge) from their social interactions, greater the confidence in the transferred knowledge.

Perceived degree of novelty

Novelty, in the KT context, refers to the perceived originality of the target knowledge (Jung and Lee, 2016), which could be new to the individual (as a recipient). Knowledge that is perceived to be novel could be viewed as valuable and not common and hence could be linked to the potential to create a competitive differentiation (Barney, 1991; Grant, 1996). Hence, it is possible that such knowledge earns higher recognition from individuals and be considered as a more stimulating input (Jung and Lee, 2016). In turn, this value perception associated with novelty enhances confidence in this knowledge.

However, engaging with this kind of knowledge could also be treading on unfamiliar territory (Wang and Libaers, 2016) for the recipient. The extent of unfamiliarity again depends on the perceived degree of novelty and to what extent this knowledge is related to the knowledge held by the individual. This unfamiliarity could heighten the perceived risk of acting on this knowledge further. This could, in turn, potentially affect the individual's confidence in the incoming knowledge and challenge the individual's cognitive capabilities

(Smith, 2016). This will further dampen their confidence in the usability of very novel knowledge. Hence, the perceived novelty of incoming knowledge could either boost the recipient's confidence levels or dampen it. Within reasonable degree of perceived novelty, it would be perceived as attractive or beneficial by the individual and hence may have a positive impact on the confidence in this knowledge. Beyond this threshold limit, higher degrees of perceived novelty could turn out to be a liability, perceived as risky by the recipient, and hence negatively influence the confidence in this knowledge.

Proposition 6: The individual recipient's confidence in the transferred knowledge has an inverted-U relationship with the perceived degree of novelty of target knowledge.

Moderating effects of individual factors on the relationship between novelty and confidence

The identified individual factors, through their positive effects on confidence, shift the point of inflection of the novelty-confidence relationship to the right. This argument will be tautological. Rather, our interest is in specifying effects that operate through their impact on the novelty-confidence relationship.

Perceived novelty of knowledge can contribute to ambiguity in individuals stemming from unfamiliarity and his/her cognitive limitations, and not knowing how best to use it. Individuals who have high need for closure do not tolerate ambiguity well (Kruglanski, 2004). Therefore, for these individuals, even moderate levels of perceived novelty can lead to discomfort and thereby lower confidence. On the other hand, individuals with low need for closure tolerate the ambiguity well and are able to think about the potential uses of the novel knowledge. Therefore, for low need for closure individuals, the novelty-confidence relationship will be positive for greater levels of novelty.

Individuals with greater levels of self-efficacy would have to overcome challenges to accomplish several things, since past successes are key to self-efficacy beliefs (Bandura, 1977). As such, they are less likely to be deterred by the challenges posed by high degree of perceived

novelty. Their ability to learn vicariously also prepares them to deal with greater levels of novelty. Therefore, individuals with greater levels of self-efficacy beliefs will be deterred only by higher levels of perceived novelty, compared to less self-efficacious individuals who would find it difficult to cope with more than a medium level of perceived novelty.

Promotion-focused individuals are better equipped to handle novelty, compared to prevention focused individuals. The unfamiliarity and the cognitive limitations associated with the perceived novelty of incoming knowledge enhances the perceived risks involved in using it. Prevention focused individuals will have difficulty dealing with greater levels of perceived novelty as they are risk averse and conservative in decision-making (Crowe and Higgins, 1997). However, promotion focused individuals, unconstrained by risk aversion, are able to cope with and make sense of novel knowledge. It was also argued that promotion focused individuals are likely to engage in relational processing of information, whereas prevention focused individuals are likely to engage in item level processing (Zhu, 2003). Relational processing, through greater linkages and associations with relevant internal and external knowledge, enables individuals to make better sense of knowledge associated with greater levels of novelty. Hence, compared to prevention focused individuals, promotion focused individuals will exhibit positive relationship between novelty and confidence at greater levels of novelty. The proposed shift in inflection has been graphically represented in figure 3.

Proposition 7a: Low (vs high) need for closure (NFC) will shift the point of inflection of the novelty-confidence relationship to the right.

Proposition 7b: High (vs low) levels of general self-efficacy (SE) will shift the point of inflection of the novelty-confidence relationship to the right.

Proposition 7c: Promotion (vs prevention) focus will shift the point of inflection of the novelty-confidence relationship to the right.

Insert Figure. 3 here

Discussion and Conclusions

This paper explores the plausible individual level differences in motivated cognition that could influence the individual's confidence in the potentially useful incoming knowledge and subsequently the possibility of deriving benefits from the same, in the context of KT. While doing so, the conceptual model that has been developed takes into account the contextual influences viz. positive feedback from social interactions and perceived novelty of target knowledge, which can influence an individual's confidence and subsequently his/her possibility of deriving benefits from KT. The above-mentioned factors jointly influence individual's confidence in the incoming knowledge, which in turn prompts the individual to further engage (or act) with this knowledge and thereby enhance the potential to realize benefits from this. The paper thus contributes to a better understanding of a phenomenon that has not attracted much attention from scholars – why some individuals are better equipped to gain benefits from potentially useful transferred knowledge.

One of the main contributions of this paper is that it attempts to explore the micro-foundations of KT. The extant literature on KT discusses the discrepancies between the extent of knowledge transferred and the actual benefits derived from the same (Ambos and Ambos, 2009; Lind and Kang, 2017). The focus of such discussions has been largely pertaining to the firm-level factors like absorptive capacity, organisational resources, mechanisms and structures, and socio-cultural aspects. The role of the individual and his/her socio-cognitive processing of the incoming knowledge in evaluating, interpreting and assessing this knowledge have been seldom explored. This paper seeks to address this gap in the extant KT literature that deter individuals from extracting benefits from potentially useful transferred knowledge from other organisational units. Scholars have noted that KT literature often disregards the

influence of individual actors, who often detect this knowledge, receive it, assess the same and take it forward as required (Argote and Ingram, 2000; Foss and Pederson, 2004). There are a few exceptions to this, since some studies have started to give more attention to individual level influences (Regner, 2003, 2005; Ringberg and Reihlen, 2008). Organizations are made up of individuals and hence their actions and interactions are likely to influence organizational outcomes or other firm level constructs. Having said that, other levels of analysis are equally important (viz. groups or networks, firm, industry, and macro-environment). In fact, each level provides researchers with different perspectives that could complement one another and provide a holistic view of the phenomenon under investigation (Foss and Pederson, 2004).

The interplay between mental models and strategic choices have been explored in the past (c.f. Kaplan, 2011), depicting the interaction of cognition with organizational factors to influence strategic outcomes (such as decision-making, performance, and capabilities), which has led to a stream of research on managerial cognition. Although extant KT research has examined the effects of various organizational mechanisms on KT, they have not examined the effects of cognitively generated motivation that prompts certain individuals to engage more with the incoming knowledge. This makes a strong theoretical contribution in advancing our current understanding on deriving benefits from KT in terms of individuals' socio-cognitive models. The contribution is timely as well, given the current emphasis on micro-foundational bases of strategy.

The role of individual level variables (based on cognitive motivation) has potential practical implications as well. All the individual level constructs could be manipulated or influenced by suitable organizational interventions and situational effects to increase the likelihood of gaining confidence (in the incoming knowledge) when individuals are engaged in KT. For example, prior research has shown that regulatory focus can be induced. Roney, Higgins, and Shah (1995) found that promotion focus can be induced through feedback.

Similarly, time pressure, aversive uncertainty and mental fatigue is seen to induce higher levels of need for closure (Kruglanski and Webster, 1991; Livi et al., 2014). Additionally, coaching or training, job autonomy and the extent of support available from the work environment is found to enhance self-efficacy in individuals (Baron and Morin, 2009; Sousa, Coelho, and Guillamon-Saorin, 2012). This also includes having more ICT related tools and infrastructure (as support from the work environment) to aid employees' knowledge related endeavours, which can also improve their self-efficacy. Hence, organisational design warrants more attention, so that employees have a working environment that is conducive to gaining confidence (via cognitive motivation) in new incoming knowledge that is potentially useful, leading on to subsequent processing and action of the same.

Further, from a human resources perspective, organisations can also benefit from recruiting personnel (during selection process) with better motivated cognition (with such natural tendencies). Besides focussing on selection, managers can also ensure better career progression, reward mechanisms and professional development for such employees. This can foster an environment where new knowledge and information, which are potentially useful to the firm are better accepted and acted upon. This in turn enables driving positive changes within the organisation and could also make them more innovative.

One of the limitations of this paper is that individual's socio-cognitive models are not limited to the few factors that have been elaborated in this paper. Future research could also explore other individual difference variables such as need for cognition. It also needs to be noted that in order for empirical models to tease out the individual-level influences, the models need to be controlled for relevant firm-level effects. To overcome this limitation, studies could control for firm-level effects by situating the study in the context of individuals within a firm or similar firms. Further, realising the benefits from KT often takes time and hence longitudinal designs would be better equipped to investigate this.

Another key contribution of the paper is the introduction of confidence in knowledge as a useful concept to the study of KT. Confidence in knowledge is a concept that has attracted wide attention by researchers in psychology and decision theory (Alba and Hutchinson, 2000; Yates *et al*., 1997). However, the concept has not been well explored by strategy and management scholars (Pillai, 2010). Since knowledge is about action, and confidence in knowledge is a prerequisite for action, this is a very useful concept. This paper calls for further research on this important concept in strategy and management.

Importantly, the construct of confidence in knowledge can inform the study of an allied topic- that of separating useful from not useful knowledge. Studies in decision theory have shown that heuristics outperform rational methods when the choice is complex and the availability of alternatives increase (Bettman, Luce, and Payne, 1998). We contend that confidence in knowledge can act as a heuristic, guiding managers to select the right knowledge to use and discard useless knowledge, when faced with an influx of a large amount of knowledge. This assertion has important implications to the study of knowledge transfer. Future research can examine this issue, teasing out its implications better.

The paper makes another important contribution in examining the relatively under-explored link between individual's confidence and the target knowledge context viz. perceived knowledge novelty. Very few studies on KT investigate aspects linked to the perceived quality of the knowledge involved in the transfer. The few studies that have adopted this line of thinking have focussed mainly on the tacit and explicit dimensions of knowledge and relevance of knowledge (Dhanaraj *et al*., 2004; Yang *et al*., 2008). Considering that most knowledge transfers are initiated when the target knowledge is deemed relevant and something that the recipients do not have, such knowledge is likely to be associated with some degree of novelty from the recipient's perspective. Perceived novelty is an interesting attribute that warrants further inquiry since it induces a certain level of unfamiliarity into the context, which could

affect the recipient's confidence and could be detrimental or favourable depending on the extent of novelty as perceived by the recipient. The individual socio-cognitive frameworks could further moderate their perception of novelty and the resulting confidence, which is another significant theme explored through this paper. Another limitation of this study is that it does not account for the effects of other knowledge attributes as perceived by the recipient, which are relevant to the context. Future studies could focus on other aspects that are part of the knowledge context (such as supplementarity or complementarity of knowledge), which also could contribute to perceived quality of target knowledge.

This limitation also applies to the assumption of only explicit knowledge being considered towards the development of the current conceptual model. Future studies could also look at tacit elements, where the micro-level mechanisms would be more complex, since the transfer and assessment of such knowledge is difficult as it is deeply embedded within the individual and linked to shared experiences (Nonaka, 1994). Hence, the focus could be more on individual collaborations using mechanisms that facilitate the comprehension and further engagement with this knowledge. The usage of metaphors or meaningful dialogues and the actual observation of someone in action (Nonaka, 1994) might help individuals comprehend and assess such knowledge and further gain confidence. Hence, a qualitative exploration of these micro-level mechanisms could be the starting point for such studies.

Perceived novelty of knowledge in the context of KT has important practical implications for mangers. Managers need to be aware of the fact that too much novelty (as perceived by the recipient) can impede or dampen the further processing of incoming knowledge as it stretches the cognitive boundaries of the individuals engaged in the transfer. This would mean that in such situations individuals might not be able to make sense of this knowledge nor come to grips with ways to put this knowledge to use. This may also discourage them from engaging effectively with further processing of this knowledge. Given that KT is a costly and time-

consuming process, managers need to make proper assessments of novelty of the knowledge involved in the transfer and take appropriate steps (make arrangements to provide more background or supporting knowledge, more opportunities to experience and work with this knowledge) to make the process efficient and effective. They also need to be aware of the cognitive limitations of their team members, so that they can make better judgements on the feasibility (investments required versus the potential benefits) of such transfers and/or plan them better.

Future research can empirically test the propositions advanced in this paper. Literature provides the measures for the constructs in the propositions. Future research can further develop the model that we propose in this paper. The effect of other individual level constructs on confidence in knowledge can be examined. Drawing from the socio-cognitive perspective, the interaction effects of social interactions with the individual level variables are aspects that can be explored further in the future. In addition, the implications of novelty of knowledge need further examination. What are the antecedents of perceptions regarding novelty of knowledge? What are the other consequences apart from confidence in knowledge? Studies can also examine other antecedents and consequences of confidence in the incoming knowledge. We hope that this paper will catalyse research in these areas.

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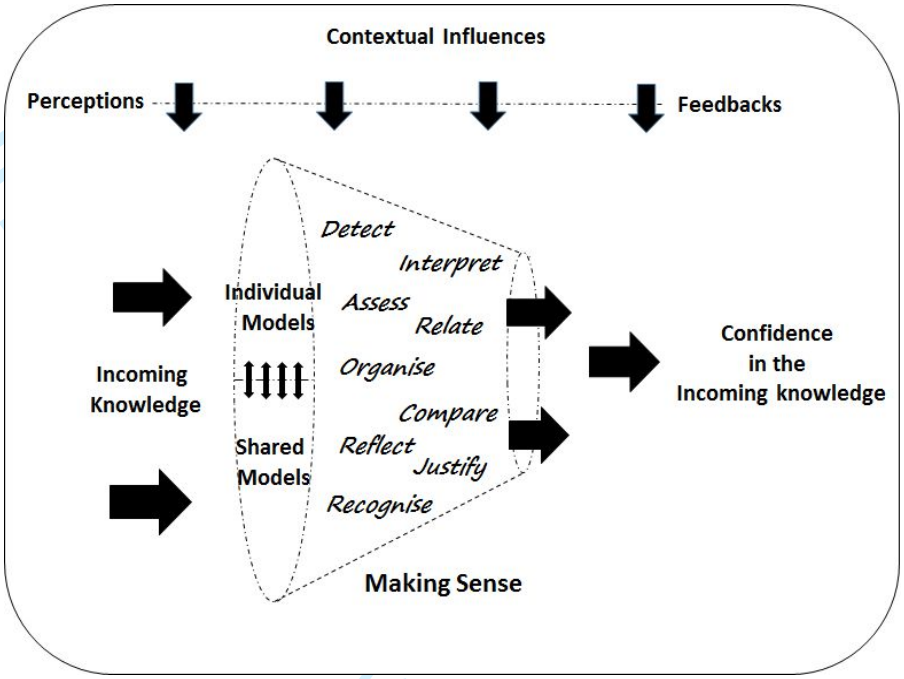

Figure 1. Individuals making sense of incoming knowledge

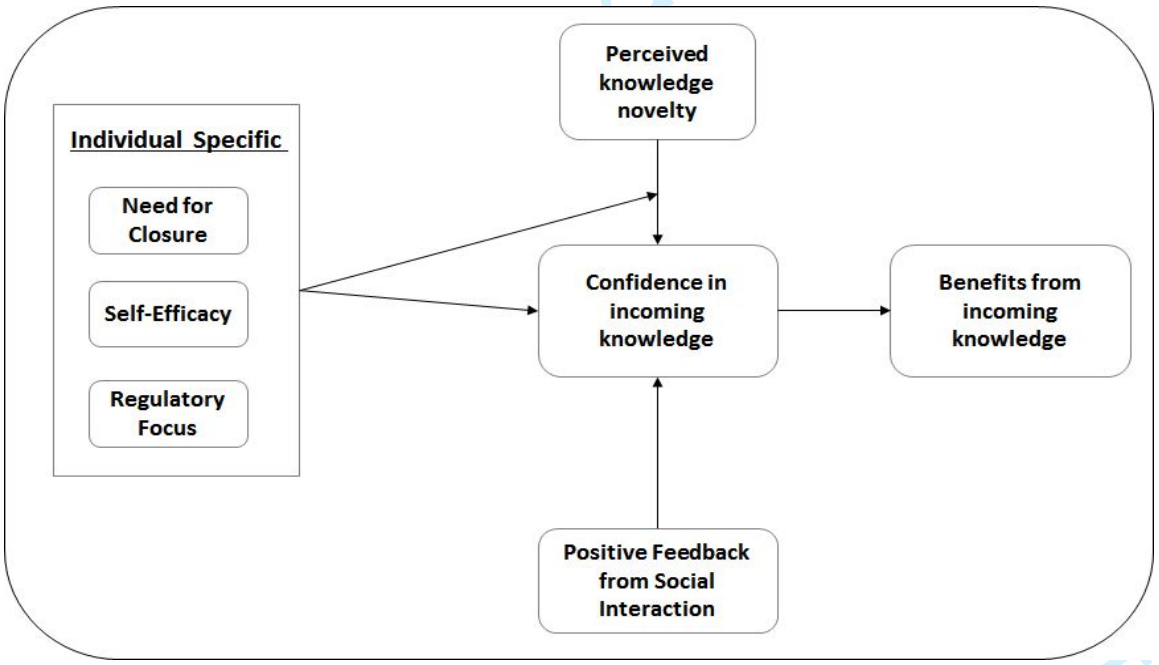

Figure 2. Proposed conceptual model

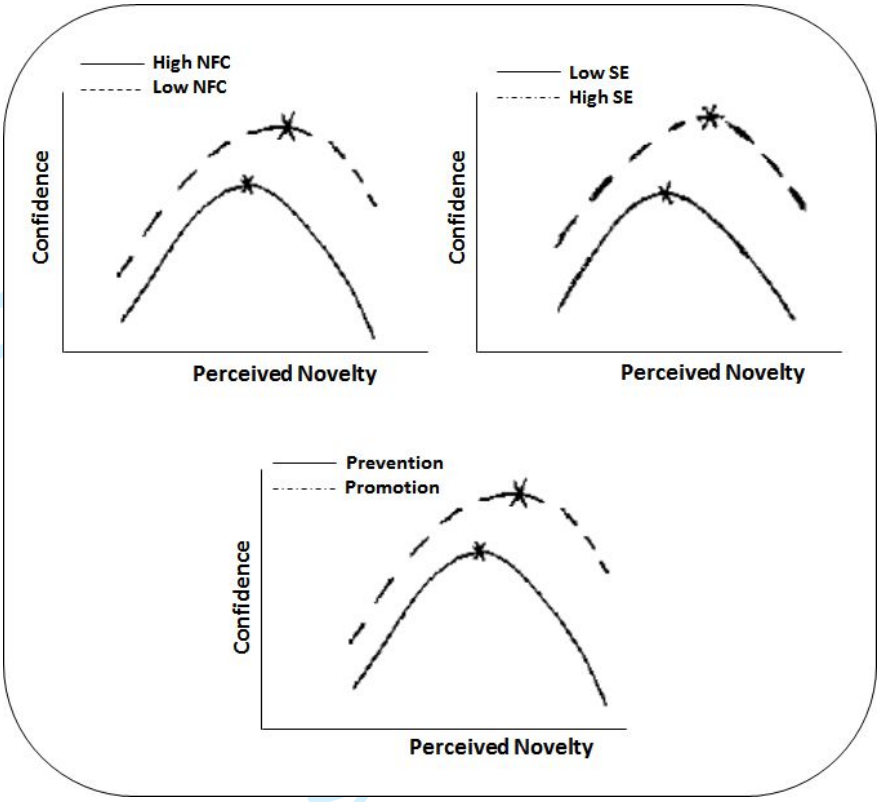

Figure 3: Predicted moderation effects