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Strategic Decision Making in International Firms: Effect of Top Management Team Internationalization on International Strategic Decision Process

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To my mother and father

Zarina Sultana and Muhammad Shafi

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1. CHAPTER 1

INTRODUCTION

1.1 OVERVIEW OF THE PROJECT

In this research project, I integrated two research streams on international strategic decisions making in international firms: upper echelons or top management teams (TMT) internationalization research and international strategic decision making process research. Both research streams in international business literature have evolved independently, but there is a potential (as discussed later) in combining these two streams of research. There is a paucity of research on international strategic decision making process (Ahroni et al., 2011; Child and Hsieh, 2014), and a possibility of integration with TMT internationalization research in context of international firms. This research project exploits this promising opportunity to integrate two research streams in international business. By doing so, I not only contribute to the upper echelons (TMT internationalization) literature but also under-explored stream of research on strategic decision making process in context of international firms (Ahroni et al., 2011).

Extant literature acknowledges the importance of TMT internationalization in terms of performance and strategic choice (e.g. Hermann and Datta, 2005; Nielson, 2010; Nielson and Nielson, 2011); however, it is mostly focused on content of strategic decisions (final decision, e.g. choice of entry mode, entry to a new market, international diversification). It has overlooked the possibility of exploring a relationship between TMT internationalization and strategic decision making process[1] (how a decision is made: fast or slow). This research gap is more striking (and thus promising) because academic research on strategic decision making is scant in international business literature, despite of its importance in terms of performance (Rajagopalan et al., 1993). Furthermore, it remains unclear how TMT internationalization can actually affect

[1] The research on strategic decision making processes mainly investigates the characteristics of strategic decisions such as rationality/comprehensiveness, speed, and politicization of decisions.

performance. I tried to address above mentioned missing points in international business literature by integrating TMT internationalization and international strategic decision making process literature in an effort to explain how TMT internationalization affects performance. I examined how TMT internationalization affects performance (decision effectiveness)[2] by considering two strategic decision making process characteristics as mediators (i.e. rationality and speed). I focused on two characteristics of international strategic decision making process: rationality and speed; because both might have substantial effects on international strategic decision effectiveness and firm performance. The relevant research questions are:

- What is the effect of TMT internationalization on international strategic decision rationality and international strategic decision speed in international firms?

- Is the relationship between TMT internationalization and (decision level) performance mediated by international strategic decision rationality and international strategic decision speed?

I answered these questions in the first empirical paper of my dissertation. The first paper "**Top management team internationalization and international strategic decision making process: a decision level analysis of rationality, speed, and performance**" explores the influence of top management team (TMT) internationalization on strategic decision rationality and speed and, subsequently, their effect on international strategic decision effectiveness (performance). The results show that the internationalization of TMT is positively related to

[2] The performance measure in this project is at decision level: decision effectiveness (discussed in detail in empirical papers).

decision effectiveness and this relationship is mediated by decision rationality while the hypotheses regarding the association between TMT internationalization and decision speed, and the mediating effect of speed were not supported. This study contributes to the literature on upper echelons theory in context of international firms by explicitly examining the effect of TMT internationalization on strategic decision making process in international firms. It showed that TMT internationalization affects international strategic decision making process and this process further transfers this effect on international strategic decision effectiveness (performance). Earlier research has shown that international strategic decision rationality is positively associated with decision and firm effectiveness (Ji and Dimitratos, 2013; Jones et al., 1992); this paper showed that TMT internationalization provides one way of achieving the required rationality in international strategic decisions and subsequently more effective decisions. It provides evidence that TMT internationalization and (decision/firm) performance are far-away in causal chain and there are processes such as decision rationality that mediates this relationship. In an effort to open the black box of upper echelons theory (Hambrick, 2007), I also tried to disentangle the decision making processes that relate the (decision/firm) performance of international firms to TMT characteristics. In this way, I also provided a potential answer to the question that how does TMT internationalization affect performance (i.e. decision effectiveness).

The second empirical paper **"TMT internationalization and international strategic decision rationality: the mediating role of international information**" of my dissertation extends the first paper following the recommendation of Goll and Rasheed (2005) that TMT proxy based studies should be followed up by additional investigations explicitly testing the theoretical relationships showed by TMT proxies. The first paper showed that TMT

internationalization has a significant positive effect on international strategic decision rationality. Building on the first paper, the second paper explicitly showed that TMT internationalization effect on international strategic decision rationality comes from: managerial international experience (personal international knowledge and information) and decision related international information collected from managerial international contacts. For this purpose a framework is developed and tested based on these two research questions:

- Is TMT internationalization positively associated with international information collected from managerial international contacts?

- Does International information collected from managerial international contacts partially mediate the relationship between TMT internationalization and international strategic decision rationality?

I answered these questions in the second paper of my dissertation. The results of the second paper supported the hypotheses based on the two research questions. The second paper contributes to literature on upper echelons and strategic decision making in context of international firms by disentangling the mechanisms that link TMT internationalization to international strategic decisions making rationality. This study showed that TMT internationalization effects on international strategic decision rationality come from: international experience and international information. Next, it contributes to research on top management teams (as teams) by combining the internal and external perspectives on top management teams in context of international firms. This study helps in understanding how the

composition of TMTs in international firms may affect their capability to access useful information from international (outside) sources which might affect their ability to make rational strategic decisions. Finally, this study shows that how do managers of international firms acquire cross-border knowledge using their interpersonal foreign-contacts which affects their decision making capability. By doing so, it contributes to the limited literature on cross border knowledge transfer and its use in international firms with an explicit micro level perspective.

This research project showed that international experience of TMT can be useful in international strategic decision making, which might affect decision and firm performance. It has implications in terms of selection and training of managers for international firms. Firstly, when selecting their TMT members, the international firms should pay more attention to their international experience. Secondly, training of managers should include a focus on functional experience with international experience. The international experience provides useful human capital and social capital which can be a critical asset for an international firm and its top managers.

The rest of this chapter is organized in the following way. First I present the theoretical framework of this project, followed by a literature review. Next, I present the research design employed in this research project. This is followed by an overview of context and sample. At the end, I described the structure of this dissertation.

1.2 THEORETICAL FRAMEWORK

I used upper echelons theory as the main theoretical framework in this research project (Hambrick and Mason, 1984). According to upper echelons theory organizational outcomes are substantially influenced by top management characteristics or composition. Early upper echelons research argued that personal experiences (human capital) of top managers can have an impact on strategic decisions and performance (Hambrick and Mason, 1984). In an extended version of upper echelons, Geletkanycz and Hambrick (1997) suggested that not only top management team personal experience (human capital) but also top management team's external ties (social capital) and information acquired from external ties can have significant effect on strategic decisions and performance. Building on this argument, I propose that TMT internationalization (in terms of international experience) affects international strategic decision making process characteristics (i.e. rationality and speed), and these characteristics further affect the decision effectiveness (performance). TMT internationalization provides relevant international experience, international-contacts, and access to useful information from international-contacts (Nielson, 2010; Levin and Barnard, 2013) which might have an influence on international strategic decision making process characteristics (i.e. rationality and speed) and further on decision effectiveness (performance).

1.3 LITERATURE REVIEW

This section includes a literature overview of upper echelons perspective and strategic decision making in general and specific to international firms. The goal is not to be comprehensive but representative.

1.3.1 Upper Echelons (Top Management Teams)

Hambrick and Mason (1984) presented the upper echelons perspective which as a theory suggested that TMT characteristics substantially affect organizational processes, organizational strategies, and organizational outcomes. According to Hambrick (1989), it is worthwhile to study top managers to understand the organizations and their actions. As a methodology, upper echelons perspective suggested that TMT demographic characteristics can be used as proxies for individual and group traits, cognitions, behaviours, and other theoretical constructs such as human capital, social capital, access to information and others (Carpenter et al., 2004). In turn, all these factors can have substantial effects on firm strategy and performance (Carpenter et al., 2004, Hambrick, 2007). Since the publication of the Hambrick and Mason (1984), several authors have provided validation of the upper echelons perspective as a theory and a method not only in domestic but also in case of international settings (for a review see Hambrick, 2007; Carpenter et al., 2004). Furthermore, researchers have demonstrated that TMT characteristics affect not only organizational processes but also team processes; and not only strategy content but also strategy process (Carpenter et al., 2004).

The upper echelons research has been a popular perspective in researchers but it has received some criticism as well. The use of demographic variables is not only criticized in organizational research (Lawrence, 1997) but also in upper echelons research (Priem et al., 1999). One criticism is that demographic variables are used to present those factors, attributes, and inferences which are never tested explicitly. Despite this criticism, there is a consensus that TMT and organizational demography (characteristics) can be useful to understand organizational processes and outcomes (Goll and Rasheed, 2005).

1.3.2 Strategic Decision Making

Strategic decisions are those infrequent decisions which involve critical organizational actions, commitment of important organizational resources, strategic positioning of the organization, determination of the overall organizational direction; and they affect the long-run survival and health of the organization (Mintzberg et al., 1976; Eisenhardt, 1989; Eisenhardt and Zbaracki, 1992). According to Fredrickson and Mitchel (1984), it is useful to look at the organizational strategy formulation as a decision making process: how organizations make strategic decision. Also, strategic decisions are influenced by the configuration or composition of TMT (Hambrick and Mason, 1984).

Strategic decision making research is divided in two main categories: strategic decision content and strategic decision process. The research on strategic decision content deals with types of strategies such as diversification, mergers and acquisitions etc (e.g. Porter, 1980), and the research on strategic decision process deals with the actual process of how strategic decisions are made (Fredrickson and Mitchel, 1984). Strategic decision process research is further divided in to two streams, one is focusing on formulation of strategic decisions and the other one focused on implementation of strategic decisions (Schwenk, 1995).

According to Eisenhardt and Zbaracki (1992), there are three main paradigms in strategic decision making research: Rational and bounded rational (Simon, 1955); Political and incremental (Pfeffer and Salancik, 1974; Lindblom, 1959; Eisenhardt and Bourgeois, 1988); Garbage Can (Cohen et al., 1972). Based on these paradigms, there are two models of how firms deal with information processing for strategic decision making (strategy formulation). The first

model is “rational-comprehensive” based on rationality paradigm which says that managers have clear goals and make comprehensive-rational decisions (Porter, 1980; Frederickson and Mitchell, 1984; Eisenhardt and Zbaracki, 1992). The second model is “political incrementalism” based on political paradigm which says that strategic decision making is a process of adaptation with experience in an incremental manner. There are no clear and set goals and information and alternatives search is limited (Lindblom, 1959). The most recent consensus in strategic management research is that people (and organizations) are rational, but bounded rational; rationality and bounded rationality are now seen as a continuum rather than a clear-cut dichotomy, and more reasonable questions can be whether and when decision making is less rational or more rational (Eisenhardt and Zbaracki, 1992).

Researchers examining the strategic decision making process have examined different characteristics of strategic decision making processes. Several researchers dealing with strategic decision processes has examined antecedents and consequences of strategic decision characteristics or dimensions such as formality in strategic decision making, strategic decision rationality, strategic decision comprehensiveness, strategic decision extensiveness, strategic decision speed, and strategic decisions politicization (Rajagopalan, 1993). As the focus of this research project is on strategic decision rationality and speed because they are two important characteristics of strategic decision processes (Eisenhardt and Zbaracki, 1992), we will discuss these two characteristics of strategic decision making process in detail.

Strategic decision comprehensiveness (systematical gathering and processing of information) and strategic decision rationality (collection and analysis of decision related

information) are similar constructs and in general represents the extent to which strategic decision making process of an organization approximates a rational model (Frederickson and Mitchell, 1984). As comprehensiveness and rationality of strategic decisions represent a similar construct, researchers have used both terms interchangeably (Elbanna, 2006; Goll and Rasheed, 2005, Priem et al., 1995). Therefore, I use rationality for both terms/constructs. Strategic decision rationality has been central in the literature on strategic decision making process (Elbanna, 2006). Dean and Sharfman (1996, p. 373) defined decision rationality as "*the extent to which the decision process involves the collection of information relevant to the decision and the reliance upon analysis of this information in making the choice*". Several authors explored the antecedents and outcomes of strategic decision rationality. For example Dean and Sharfman (1996) found a positive relationship between strategic decision rationality and decision effectiveness. Based on a simulation study, Hough and White (2003) suggested that environmental dynamism moderates the relationship between decision rationality and decision quality. Goll and Rasheed (2005) found that top management team characteristics influence strategic decision rationality and strategic decision rationality influence firm performance. Elbanna and Child (2007a) showed that decision, firm, and environmental characteristics influence the strategic decision rationality. The majority of empirical literature suggested a positive relationship between strategic decision rationality and (decision or firm) performance (e.g. Bourgeois and Eisenhardt, 1988; Dean and Sharfman, 1996; Priem et al., 1995; Goll and Rasheed, 1997; Miller et al., 1998; Papadakis, 1998; Goll and Rasheed, 2005; Elbanna and child, 2007a). However, Fredrickson and Mitchell (1984) found a negative relationship between strategic decision rationality and performance in an unstable environment. Furthermore, Souitaris and Maestro (2010) also found negative relationship between strategic decision rationality and

performance in case of new technology ventures. Elbanna (2006) suggested that these contradictory results might be due to differences in samples, methods, operationalization of the construct, and level of analysis. Despite of the importance of strategic decision rationality, international business literature lacked empirical studies on strategic decision rationality. Jones et al. (1992) found a positive relationship between strategic decision making rationality and organizational effectiveness in case of international firms. Ji and Dimitratos (2013) showed that international strategic decision rationality is positively associated with decision effectiveness. These two studies show that international strategic decision rationality substantially affects decision level and firm level performance, and they offer a strong grounding for further studies on the antecedents of international strategic decision rationality. It is not only theoretically important to know which (managerial, firm, environmental) factors affect international strategic decision rationality in international firms, but also critical for managers of international firms for achieving effectiveness at decision and organizational level.

Strategic decision speed (how quickly a decision is made) is another important characteristic of strategic decision making process (Forbes, 2005). It has been measured as the time required to make decision (e.g. Eisenhardt, 1989; Forbes, 2005) and general average speed of strategic decision making in an organization (Souitaris and Maestro, 2010). Several authors explored the antecedents and consequences of strategic decision speed. For example, Judge and Miller (1991) found a positive association between simultaneous consideration of many alternatives and strategic decision speed. Baum and Wally (2003) found a negative association between environmental dynamism, environmental munificence and strategic decision speed. They found a positive association between centralization of strategic management,

decentralization of operations management and strategic decision speed. There is mixed evidence on relationship between strategic decision speed and performance. According to Bourgeois and Eisenhardt (1988) successful firms are able to make comprehensive (rational) and fast strategic decisions simultaneously. Judge and Miller (1991), Baum and Wally (2003), and Souitaris and Maestro (2010) also found a positive relationship between strategic decision speed and firm performance. Zehir and Ozsahin (2008) found a positive relationship between strategic decision speed and innovation performance. But the empirical studies of Perlow et al. (2002) and Forbes (2005) suggested a negative relationship between strategic decision speed and firm performance. The contradictory findings might be due to the different operationalization of construct of speed (Rajagopalan et al., 1993) or use of different methods and samples. In general researchers believe that decision rationality decreases the speed of strategic decision making (Perlow et al., 2002; Forbes, 2007). However, Bourgeois and Eisenhardt (1988) case studies based research showed that successful firms were simultaneously rational (comprehensive) and fast in strategic decision making. Talaulicar et al. (2005) found that a departmental model of TMT organization (where TMT members serve as head of different departments and have individual decision authority for their areas of responsibility) positively affects both rationality and speed of strategic decisions in start-ups. Based on in-depth qualitative study of strategic decisions, Perlow et al. (2002) challenged the existence of speed and rationality simultaneously. Souitaris and Maestro (2010) data also indicates a negative relationship between strategic decision speed and rationality. To my knowledge, there are no empirical studies on speed of international strategic decision making[3]. Therefore, there are still opportunities for empirical studies on international strategic decision speed and related factors.

[3] In an unpublished study, Ruigrok and Wagner (2000) showed that TMT cultural heterogeneity is positively associated with emotional conflict ($p<.05$), which is further negatively associated with decision timeliness ($p<.10$).

1.3.3 Top Management Teams and Strategic Decision Making

Strategic decisions are made and influenced by TMT of an organization (Child, 1972). As discussed earlier, Hambrick and Mason (1984) presented the upper echelons perspective suggested that TMT characteristics substantially affect organizational processes, organizational strategies, and organizational outcomes. According to Papadakis and Barwise (2002) strategic decision processes are also influenced by TMT characteristics, which is inline with the upper echelon theory of Hambrick and Mason (1984). Several authors have examined the link between TMT characteristics and strategic decision making processes, and a further link with performance. As the focus of this research project is on strategic decision rationality and speed, we will discuss representative studies on theses two characteristics of strategic decision making process. Miller et al. (1998) found that TMT cognitive diversity is negatively related with strategic decision rationality which is further positively related with firm performance. Simons et al. (1999) argued that TMT composition diversity and debate have a positive effect on strategic decision rationality and firm performance. Goll and Rasheed (2005) found that top management team characteristics (age, tenure, and education) influence strategic decision rationality and strategic decision rationality influence firm performance. Talaulicar et al. (2005) found that organization, debate, and trust in TMTs of start-ups have a significant effect on rationality and speed of strategic decisions. Forbes (2007) found that older and experienced managers make faster strategic decisions. Alexiev (2010) found a positive association between TMT external advice seeking, TMT internal advice seeking and strategic decision rationality. Souitaris and Maestro (2010) found that TMT polychronicity (ability and belief to engage in multiple tasks simultaneously or intermittently) has a positive effect on strategic decision speed and a negative effect on strategic decision rationality; and these strategic decision processes mediate the TMT

polychronicity effect on firm performance. Mihalache et al. (2013) found a positive association between TMT shared leadership and strategic decision rationality and strategic decision rationality is further positively associated with organizational ambidexterity. In summary, managerial, organizational, and environmental factors affect strategic decision rationality and speed; and strategic decision rationality and speed affect decision level and firm performance.

1.3.4 TMT Internationalization and International Strategic Decision Making

The international business literature on top management teams argues that TMT internationalization (in terms of international experience and nationality diversity) can have substantial effects on international firm strategies and performance (Sambharya, 1996; Nielson, 2010; Nielson and Nielson, 2013). The literature connecting the TMT internationalization with strategic decisions and with international firm performance through strategic decisions is mostly focused on the "content of strategic decision" and ignores the strategic decision making process. For example, Sambharya (1996) found a positive relationship between TMT international experience and international involvement of a multinational firm. Reuber and Fischer (1997) showed that TMT international experience is positively associated with internationalization and success of internationalization strategy of SMEs. Tihanyi et al. (2000) found that TMT internationalization in terms of international experience has a positive effect on firm international diversification. Ruigrok and Wagner (2000) showed that TMT cultural heterogeneity (based on nationalities) has a positive effect on decision quality which is further positively associated with performance in international firms. Caliguri et al. (2004) found that TMT national diversity is positively associated with internationalization of multinational firms. Hermann and Datta (2005) found a positive relationship between TMT international experience and international

diversification. Tan and Meyer (2010) found a positive association between managers' international experience and international growth. Nielson (2010) found that TMT internationalization positively affects the firm performance through further internationalization. Nielsen and Nielsen (2011) found that two dimensions of TMT internationalization, namely international experience and nationality diversity, affect differently the choice of foreign entry mode. Nielsen and Nielsen (2013) found that TMT internationalization in terms of nationality diversity has positive effects on performance especially in case of teams with longer tenures and highly internationalized teams. Schmid and Dauth (2014) reported inverted U-shaped relationship between TMT internationalization (nationality of managers plus international experience) and firm's stock price. They also pointed out that few studies that explored the relationship between TMT internationalization and firm performance yield inconclusive results (a comparison of their results with Nielson and Nielson, 2013 shows this difference of results). The link between TMT internationalization (in terms of international experience of TMT members) and performance is positive in general (Carpenter et al., 2001; Carpenter, 2002; Nielson, 2010). But Nielson and Nielson (2014) reported a negative effect.

While these studies have undoubtedly enriched our knowledge on the content outcomes of TMT internationalization, we know little about how this characteristic influences the strategic decision process. This neglecting of examining a link between TMT internationalization and international strategic decision processes is an important missing point in TMT internationalization related literature.[4] We know that TMT characteristics not only affect

[4] Another study in context of international business explored the effect of national culture on strategic decision making process characteristics such as hierarchical decentralization, lateral communication, & formalization (Dimitratos et al., 2011).

strategic decision content but strategic decision making process characteristics as well (Papadakis and Barwise, 2002). I expect that TMT internationalization affects international strategic decision making process characteristics (i.e. rationality and speed), and these characteristics are further associated with performance (decision level). I focused on rationality and speed of international strategic decision making because, as discussed in earlier sections, both might have substantial effects on international strategic decision effectiveness and firm performance. Furthermore, as discussed earlier, both of them have not been explored sufficiently in general and in terms of their antecedents.

1.4 RESEARCH DESIGN

In order to answer the research questions of my dissertation, mainly a survey approach is used. I also interviewed (short interviews of 15-20 min.) 16 top managers to check the reliability of survey data and to get additional insight of the phenomenon of interest. The choice of a survey design is guided by the research questions. The research questions deal with the association of different variables such as TMT characteristics, strategic decision making process characteristics, and decision effectiveness (performance), and questions on mediation. A survey design is appropriate for such types of studies dealing with association between different variables of interest or in other words testing relationship among a set of variables (Van der Stede et al., 2005). Furthermore, survey method is used by several studies on TMT characteristics and strategic decision making (Goll and Rasheed, 2005; Elbanna and Child 2007a, 2007b; Souitaris and Maestro (2010); Ji and Dimitratos, 2013). I designed a survey questionnaire to collect information for this research project. The survey questionnaire is used to collect data on firm profile, TMT profile, international strategic decision of interest, decision effectiveness, and other

variables of interest. The questionnaires were dropped off in person or online (where requested). I called or personally visited the firms after one week and three weeks as a reminder, and a new questionnaire was provided if requested. The questionnaire was filled by CEO or any other top manager who was involved in that international strategic decision of interest. The respondents were asked to focus on the most important foreign market entry decision when answering the survey questions. The data was collected from April to September 2014. The survey questionnaire and interview protocol can be found in the Appendix A.

I took care of common issues with such survey based studies at the design stage and during data collection such as questionnaire design, construct validity and reliability (also data reliability), response rate, common method variance, and recall bias (Van der Stede et al., 2005; Elbanna, 2006; Chang et al., 2010). In case of questionnaire design, the questionnaire was pre-tested by three PhD students, one post-doc, three Professors, and three top managers of international software-firms from Pakistan (to make sure that researchers and potential respondents can easily understand the questions (Van der Stede et al., 2005)). In case of constructs reliability, I used all the measures which are used and validated in previous studies. I also conducted appropriated validity and reliability tests to establish the quality of our data such as Cronbach's alpha, PCA, and CFA (discussed in empirical papers). Furthermore, 16 interviews are used to establish the reliability of main dependent variables following Souitaris and Maestro (2010). To avoid the low response rate, I personally dropped off the questionnaire and requested the top managers personally to fill the questionnaire. I also called or personally visited the firms after one week and three weeks as a reminder, and a new questionnaire was provided if requested. This effort resulted in a reasonable response rate which might be a critical issue in

data collection from top managers in developing countries (Elbanna & Child, 2007a). To avoid the common method variance, I used several ex-ante and ex-post approaches suggested by Chang et al. (2010) and Podsakoff et al. (2003) such as use of already validated measures, questionnaire design, and Harman's single factor analysis (discussed in empirical papers).

The unit of analysis in this dissertation is international strategic decision, more specifically most important foreign market entry decision. This choice of most important foreign market entry decision might help to reduce recall bias (Ji and Dimitratos, 2013). The choice of a single decision is guided by the advice in the relevant literature (Rajagopalan et al. 1993; Papadakis et al. 2010) and following the similar studies (Elbanna and Child 2007a). The survey questionnaire was presented in English without any translation because managers of the target firms are well educated and English is the official language in most of the public and private sector organizations in Pakistan.

At initial stages of this project, I talked to several people related to software industry in Pakistan including officials of software industry association, employees of software firms, an associate professor who held a senior position in software firms, a PhD researcher working on software industry of Pakistan. This effort helped me to understand the industry better and to decide that it would be suitable choice for my research project (Van der Stede et al., 2005) based on these facts: international firms, access to the firms and managers, well educated managers (high probability to say yes to a research survey), and availability of two reliable lists of firms maintained by the industry associations.

1.5 CONTEXT AND SAMPLE

The context of this study is Pakistan. Pakistan is a country located in South Asia with a population of 180 million people and GDP of $243.818 billion (as of 2014). The data for this study is collected from international software firms of Pakistan during summer of 2014 via a questionnaire. The official lists of companies developed and updated by Pakistan Software Ware Association (PASHA) and Pakistan Software Export Board (PSEB) were used to create a sample of 250[5] international software firms. To be included in the sample, the firms should have been locally owned (not subsidiaries of foreign firms), and have international sales. The data (interviews and questionnaires) is collected from the members (CEO, Chief Strategy Officer, Chief Technology Office, Manager International Business) of TMTs of target firms of the Pakistan. The choice of this industry seems compatible with my research topic as this industry is very active in international business and earns around 1.5 billion dollars per year from foreign sales (2 billion dollars total revenues). Areas of strength include animation and gaming, mobile content, financial solutions, medical transcription, industry-specific ERP, and document management. Target geographic areas are USA, UK, UAE, Australia, and China. I collected 91 questionnaires from firms, 84 are used for analysis in this study (4 are incomplete and 3 decisions are older than year 2000). It means that I have data on 84 decisions, in which 5 decisions happen from 2000 to 2003 and 79 from 2004 to 2014 (before March 2014). Table 1 shows the basic profile (as of 2014) of the 84 firms in terms of age, size (number of employees) and international sales (as a proportion of total sales). Mean age of the firms is 7.89 years (median is 7 years) with youngest is 1 year old and oldest is of 24 years. Mean size of the firms is 63.38 employees (median is 27.5 employees) with smallest have 5 employees and largest

[5] 256 firms were identified. When contacted, 6 firms had already closed their operations. The industry information and list of member firms can be accessed from the websites of PASHA and PSEB: http://www.pseb.org.pk ; http://pasha.org.pk

1300. There are only 8 (9.5 %) firms having more than 100 employees, and only 2 (2.4%) having 500 or more employees (i.e. 500, 1300). Most of the firms have a size from 5-100 employees. In terms of international sales (as a proportion of total sales) of these firms, mean is 82.02% (median is 95%) with lowest of 10% and highest of 100%. Most of the firms have international sales of 70% to 100%.

Insert Table 1 about here

Several members of different software exporting companies have international education, international work experience, or work experience with a multinational firm (initial information provided by websites and executives of official industry association, senior employees of software firms and an assistant professor in Pakistan). I contacted Pakistan Software Houses Association (PASHA) and Pakistan Software Export Board (PSEB) and they have provided help in this study. The 250 firms are identified from the official list provided by Pakistan Software Houses Association (PASHA) and Pakistan Software Export Board (PSEB). There are more than 500 officially listed members of PSEB mainly from three biggest cities of Pakistan. There are mainly two types of software firms operating: locally owned software-houses and foreign owned software-development centres of international firms. Most of the locally owned software-houses have international sales. The Government of Pakistan has provided excellent infrastructure and incentives to IT industry in Pakistan such as low rent IT technology parks, 100 % of equity allowed to foreign investors with 100 % repatriation of profits allowed, tax break (initially for 7 years), investment in incubators, help in international marketing and promotion; and several

others. Due to these incentives provided by the government of Pakistan and cheap labour with high quality education and training, the industry has seen a high growth[6] during the last decade.

This is a single industry and single country study. The studies in a single industry and a single country might not be superior in terms of generalizability but collection of data from a single industry and a single location is a reasonable strategy as it restricts uncontrolled variance due to industry and country differences. Single industry studies are also reasonable in survey studies because respondents interpret the questions in a similar way (Forbes, 2005).

1.6 STRUCTURE OF THE DISSERTATION

The structure of this dissertation is as follows. After this introductory chapter-1, the two empirical papers are presented in next two chapters. The chapter-2 presents the first empirical paper "Top management team internationalization and international strategic decision making process: a decision level analysis of rationality, speed, and performance". The chapter-3 presents the second empirical paper "TMT internationalization and international strategic decision rationality: the mediating role of international information". The dissertation is completed by an appendix (Appendix A) which includes the questionnaire and short interview protocol used for data collection for this project.

[6] 39% industry growth and 41% growth in employment from 2007-2008 (recent figures are not available).

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1.8 EHHIBITS

TABLE 1

Firms profile in terms age and size and proportion of international sales

Variable	**Observations**	**Mean**	**Median**	**Std. Dev.**	**Min**	**Max**
Firm Age	84	7.893	7	4.719	1	24
Firm Size	84	63.381	27.5	154.117	5	1300
International Sales	84	82.024	95	25.111	10	100

2. CHAPTER 2

Top Management Team Internationalization and International Strategic Decision Making Process: A Decision Level Analysis of Rationality, Speed, and Performance[7]

[7] Paper presented at SMS Annual Conference 2014; paper submitted to AOM Annual Conference 2015.

2.1 INTRODUCTION

Strategic decisions shape the direction of a firm and these decisions are critical for organizational success and survival. Strategic decisions in case of international firms are more complex because they have to deal with different types of cultures, governments, and competitors. The managers of these international firms have to process large and diverse amount of conflicting information (Sanders and Carpenter, 1998). This complexity and quantity of information may require more careful and comprehensive information processing for effective decision making (Egelhoff, 1991), and we know that a careful and rational-comprehensive analysis is needed for strategic success (Bourgeois and Eisenhardt, 1988; Dean and Sharfman, 1996).

Dealing with high complexity and large quantity of data requires international firms to be rational-comprehensive in strategic decision making for effective decisions (Ji & Dimitratos, 2013) and better performance (Jones et al., 1992). Also, the managers of international firms have to be fast in their decision making to make sure that international opportunities are not eroded due to delayed decision making and to get first mover advantages (Makadok, 1998). To sum it up, international firms have to be more careful and rational (collection and processing of relevant information) as well as fast in their decision making because this may provide the required fit in terms of information processing capacity with international environment which is required to be successful (Galbraith, 1973; Tushman and Nadler, 1978). This discussion suggests that rationality and speed in strategic decision making can be useful for international firms. However, it seems counter intuitive to have, at the same time, more rational and fast decision making in general and specifically in the complex situation of international firms.

In literature on international firms, researchers argue that international firms deal with the complexity and load of information processing through the internationalization of their top management teams (TMT). The internationalized TMT (in terms of international experience or national diversity) is capable of collecting, interpreting, and processing the relevant information and making sound strategic decisions resulting in better performance (Gupta and Govindarajan, 2002; Nielson, 2010; Sambharya, 1996). While extant research connecting the TMT internationalization with strategic decisions and with international firm performance through strategic decisions (Athanassiou and Nigh, 2002; Hermann and Datta, 2005; Nielson, 2010) has undoubtedly enriched our knowledge on the *content of strategic decision* (final decision, e.g. choice of entry mode and entry to a new market), it has largely overlooked the *strategic decision making process side*[8] (how a decision is made: fast or slow). The paucity of these latter studies may be problematic because, as we know that TMT characteristics and configuration influence not only the strategic decisions content but also strategic decisions processes (Goll and Rasheed, 2005; Forbes, 2005; Souitaris and Maestro, 2010), we may expect the internationalization of TMT to play a role as well in strategic decision making processes.

Summing it up, the international business literature on upper echelons internationalization (TMT) in terms of international experience and nationality diversity focused mainly on strategic decisions content and performance and thus overlooked a possible link of upper echelons internationalization with strategic decision making process characteristics such as decision rationality and decision speed. This missing point in literature on international firms is very relevant to be addressed as international strategic decision making process can have substantial effects on the effectiveness of strategic decisions (Ji and Dimitratos, 2013) and

[8] The research on strategic decision making processes mainly investigates the characteristics of strategic decisions such as rationality/comprehensiveness, speed, and politicality of decisions.

subsequently on performance (Jones et al., 1992). Furthermore, the literature on upper echelons internationalization and international firm performance missed the answer of the *how* of this link. A reasonable argument is that upper echelons internationalization and (strategic decision or firm) performance are faraway in causal chain, and there are factors and processes which transfer the effect of upper echelons internationalization to (strategic decision or firm) performance. We try to address above mentioned missing points in international business literature on upper echelons internationalization. We argue that upper echelons internationalization affects international strategic decision rationality and speed in an international firm, and international strategic decision rationality and speed might be the factors that transfer the effect of upper echelons internationalization to performance. Our research questions are: What is the effect of TMT internationalization on international strategic decision rationality and international strategic decision speed in international firms? Is the relationship between TMT internationalization and (decision level) performance mediated by international strategic decision rationality and international strategic decision speed?

To examine the link between TMT internationalization and characteristics of strategic decisions process in international firms and their possible mediating effect on performance, we draw on upper echelons theory and on the literature on the role of human and social capital of top managers in determining the organizational outcomes (Hambrick and Mason, 1984; Geletkanycz and Hambrick, 1997). We argue that the international experience of TMT will influence two characteristics of strategic decision processes: strategic decision rationality (gathering and processing of related information during decision making) and strategic decision speed. More specifically, we hypothesize that TMT internationalization may be positively related to

international strategic decision rationality but TMT internationalization may be positively or negatively associated to international strategic decision speed, and international strategic decision rationality and speed then are associated to decision/firm performance. We tested our framework using data collected from a truly global industry (software firms) in a developing country.

We contribute to the literature on upper echelons theory and strategic decision making in context of international business and international firms by explicitly showing that TMT internationalization affects international strategic decision making process and this process further transfers this effect on international strategic decision effectiveness. In an effort to open the black box of upper echelons theory (Hambrick, 2007), we also provided a potential answer to the question that how does TMT internationalization affect performance (i.e. decision effectiveness).

2.2 THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Strategic decisions are those infrequent decisions which involve critical organizational actions, commitment of important organizational resources, strategic positioning of the organization, determination of the overall organizational direction, and affect the long-run survival and health of the organization (Mintzberg et al., 1976; Eisenhardt and Zbaracki, 1992). According to Fredrickson and Mitchell (1984), it is useful to look at the organizational strategy formulation as a decision making process: how organizations make strategic decisions.

Strategic decision making research is divided in two main categories: strategic decision content and strategic decision process (Eisenhardt & Zbaracki, 1992). The research on strategic decision content deals with types of strategies, and the research on strategic decision process deals with the actual process of how strategic decisions are made (Fredrickson and Mitchell, 1984) and focus on rationality (or comprehensiveness), speed, and other characteristics of strategic decisions. Strategic decision process research is further divided into two streams, one is focusing on formulation of strategic decisions and the other one focuses on implementation of strategic decisions (Schwenk, 1995).

Our research takes a process view of the strategic decision making and focuses on how TMT composition affects the formulation of strategic decisions in international firms with a main focus on international strategic decision rationality and speed.

In examining the phenomenon of interest, we use the upper echelons theory (Hambrick and Mason, 1984) coupled with insights from literature on human capital and social capital and information processing theory. Recognizing that strategic decisions in organizations are made by top management teams and these decisions are influenced by the composition of TMT (Hambrick and Mason, 1984; Carpenter et al, 2004; Papadakis and Barwise, 2002), we argue that TMT internationalization has an effect on characteristics of strategic decision making process in international firms. This argument is in line with the agreement in research that strategic decisions are bounded rational (Eisenhardt and Zbaracki, 1992) and strategic decisions are influenced by the characteristics and cognitive limitation of TMT (Hambrick and Mason, 1984).

More and more TMTs are becoming internationalized in terms of international experience and national diversity, especially in case of international firms. Several authors have explored the effect of TMT internationalization on firm's strategic decisions and firm performance (Carpenter and Frederickson 2001; Nielsen and Nielsen 2011; Nielsen and Nielsen 2013). The literature connecting the TMT internationalization with strategic decisions and with international firm performance through strategic decisions is mostly focused on the *content of strategic decision* and neglected the *strategic decision making process* side. Although several researchers find that there is a positive effect of TMT internationalization on firm performance (Carpenter and Frederickson 2001; Nielson 2010; Nielsen and Nielsen 2013) and they suggest that this positive effect of TMT internationalization comes from better and more thorough processing of relevant information (Nielsen, 2010; Nielsen and Nielsen 2013), no one explicitly investigated this argument and related mechanisms. According to existing literature, TMTs with international exposure have international experience and international-ties which will help them to access more relevant information (Yli-Renko et al., 2002) in a timely manner. We propose that these information gathering and processing capabilities can affect the rationality and speed of international strategic decisions. To the best of our knowledge no one has explicitly explored the relationships between TMT internationalization and international strategic decision rationality and international strategic decisions speed and how these characteristics of strategic decisions are related to the (decision/firm) performance.

We decided to focus on two characteristics of strategic decision processes namely strategic decision rationality (collection and processing of relevant information) and strategic decision speed because these two characteristics have received significant attention from

literature, especially the one that links TMT composition with strategic decision making process (but not with TMT internationalization). It seems relevant to focus on these two dimensions in case of international firms because they have to deal with complex and high level of information processing; at the same time, being fast allows international firms to capture the international opportunities which might vanish if late actions are taken.

Here it is worthwhile to mention the importance of personal experience (human capital) and social ties (social capital). According to Nahapiet and Ghoshal (1998), the differences in firms and their performance may be due to their ability to create and exploit intellectual capital (human capital and social capital). TMT members who have worked in different countries, worked with multinational firms, been educated in foreign countries not only have international experience but they are also likely to have built strong social ties with their (international) colleagues through face to face interactions (Storper and Venables, 2004). Conversely, a manager who has not worked in different countries, or lived in foreign countries, or educated in foreign countries might not have had the opportunity to meet people from different nations and countries and not had face to face contacts for building strong social ties. Social capital complements the human capital (personal experience) and makes possible to achieve those outcomes which might be impossible or very costly to achieve without it (Nahapiet and Ghoshal, 1998). The human capital (personal international experience) and social capital (international ties) are complementary in another way, as the TMT members with international experience are more likely to have a global mindset which will increase the probability of their recognizing, accepting, interpreting and utilizing the knowledge from different international sources (Gupta and Govindarajan, 2002). So, an internationalized TMT having relevant international experience

and international-ties might be more rational and faster in strategic decision making. It is already established that international social ties provide useful information to international firms (Levin and Barnard, 2013) and the access to useful knowledge from outside sources positively affects the exploitation of that knowledge for organizational outcomes (Foss et al., 2013; Yli-Renko et al., 2002). Moreover a specific composition of TMTs (in terms of international experience) may affect their capability to access useful information from outside sources which will affect their ability (to exploit it) to make rational and fast international strategic decisions. This discussion is in line with Burt (1992), who suggested three benefits of social capital: access, timing, and references.

On the basis of above mentioned discussion, we propose a mediation model in which TMT internationalization affects characteristics of international strategic decision making process which further affect international strategic decision effectiveness (performance).

TMT internationalization and international strategic decision effectiveness (performance)

It is well established in the literature that TMT internationalization (international experience) can have a positive effect on international firm performance (Nielsen, 2010; Carpenter, 2002; Carpenter et al. 2001). The same might be true for the TMT internationalization and internationalization strategic decision effectiveness (performance at decision level) because the causal link between TMT internationalization and decision level performance is more direct (Hough and White, 2003). The idea that an internationalized TMT in comparison to a non-internationalized TMT leads to more effective or better decisions is based on the fact that an internationalized TMT has diverse and valuable knowledge, resources, expertise, and networks,

and is in line with the information processing and sourcing theory argument that the differences in the ability of information processing will affect the strategic decision quality (Nielson, 2010; Atuahene-Gima and Li, 2004; Sambharya, 1996). TMTs with international experience are better in judging the risks and returns of international investments (Herrmann and Datta, 2006); this capability helps to make more effective international strategic decisions. We thus propose:

Hypothesis 1: TMT internationalization is positively associated with international strategic decision effectiveness in an international firm

TMT internationalization and international strategic decision rationality

Strategic decision rationality is the extent to which decision makers collect and process decision related information (Dean and Sharfman, 1996)[9]. According to Elbanna and Child (2007), the boundaries of decision rationality are largely a function of limitations on related information. Following the same line of argument, an internationalized TMT is able to make more rational international strategic decisions due to the availability of relevant human capital (personal international knowledge) and social capital (knowledge and information available through international ties/contacts). This argument is supported by several researchers' findings that rationality (or comprehensiveness) of strategic decisions is increased with the availability of more relevant and diverse information (Cosier and Schwenk, 1990). The TMTs with more international experience have more (diverse) international information and international information sources (Sambharya, 1996) and this diversity of information and information sources leads to more rational-comprehensive decisions (Forbes, 2007). International experience of

[9] Dean and Sharfman (1996, p. 373) defined decision rationality as "*the extent to which the decision process involves the collection of information relevant to the decision and the reliance upon analysis of this information in making the choice*".

managers reduces the uncertainty related with strategic internationalization decisions (Sambharya, 1996), provides better information on international opportunities (Tihanyi, 2000), and creates valuable international networks (social capital) which can provide useful information for better international strategic decisions (Athanassiou and Nigh, 2002). TMTs with international experience are more likely to have international ties or contacts (Ellis, 2011) which can help to access useful and diverse information (Yli-Renko et al., 2002) and it complements the existing information and resources (Nahapiet and Ghoshal, 1998; Burt, 1992). So, it can be argued that a TMT which have more international ties and contacts can access to more (and diverse) information on international opportunities and issues (Yli-Renko et al., 2002). An internationalized TMT can judge (Herrmann and Datta, 2006) and interpret (Nielsen, 2010) that information for utilizing in strategic decision making. On the basis of previous discussion, we propose that in context of international firms, TMT internationalization (in terms of international experience) is positively associated with international strategic decision rationality.

Hypothesis 2: TMT internationalization is positively associated with international strategic decision rationality in an international firm

TMT internationalization and international strategic decision speed

As it is discussed next in this section, the effect of TMT internationalization on international strategic decision speed (how quickly a decision is made) can be positive or negative.

According to prior research, relevant experienced people have a positive influence on strategic decision speed (Eisenhardt, 1989; Forbes, 2005). It seems also true in the case of

internationally experienced managers because these managers know the international context better than non-experienced managers, and it is possible that these internationally experienced managers already know something about an international issue. Even if they do not know anything about the international issue relevant to their firm, they probably know where to look for the relevant information based on their international experience or they have the international ties or contacts which will help them to get the relevant information from different regions of the world quickly. The same might not be true for the non internationalized TMT. So, internationally experienced managers are more likely to collect relevant information quickly which will increase the speed of international strategic decision making.

According to Eisenhardt (1989), the availability of real-time information increases the speed of strategic decisions. It is a very logical proposition because availability of real-time information reduces the required time to collect the required information for a decision and thus increases the speed of strategic decisions. The internationally experienced managers are likely to get real-time information about an international issue due to their international contacts, and the availability of inexpensive intercontinental communication (e.g. skype) and online social-networks makes it more possible.

Social capital can be useful in terms of speedy access to information (Burt, 1992). According to Nahapiet and Ghoshal (1998), social-ties provide channels for gathering information in a fast and efficient way. So, it can be argued that an internationalized TMT (with international ties) can gather information on international opportunities and issues more efficiently and quickly as compared to a non-internationalized TMT. On the basis of above

mentioned discussion it is reasonable to propose that TMT internationalization (having internationally experienced managers) is positively associated with international strategic decision speed.

Hypothesis 3a: TMT internationalization is positively associated with international strategic decision speed in an international firm

TMT internationalization could have negative effect on strategic decision speed too. It is possible that an internationalized TMT looks for more and diverse information due to its foreign ties and contacts, and in pursuit of comprehensive-rational decisions it will waste more time which will reduce speed of their decision making (Forbes 2007). It is possible that an internationalized TMT have managers with diverse experiences in terms of cultural exposure. This heterogeneous TMT in terms of international experience may face problems and delays in reaching consensus due to friction and communication problems (Zanger and Lawrence, 1989; Jackson, 1992; Hambrick et al., 1996), and it will have a negative impact on strategic decision speed. It is also possible that people with different international experiences will have very different approaches and they will not agree on one view point. In this situation it is also possible that people will be engaged in behind the curtain politics (Bourgeois and Eisenhardt, 1988) which will reduce the speed of the strategic decisions. On the basis of above mentioned discussion we propose the following hypothesis:

Hypothesis 3b: TMT internationalization is negatively associated with international strategic decision speed in an international firm

International strategic decision rationality and speed as mediators between TMT internationalization and international strategic decision effectiveness (performance)

TMT internationalization affects decision effectiveness (performance) and also international strategic decision rationality and speed. Furthermore, it is well established that strategic decision rationality and strategic decision speed affect (decision/firm) performance (Ji and Dimitratos, 2013; Bourgeois and Eisenhardt, 1988; Forbes, 2005; Souitaris and Maestro, 2010). Thus, it is possible that international strategic decision rationality and international strategic decision speed mediate the relationship between TMT internationalization and international strategic decision effectiveness (performance). In hypotheses 2, 3a, and 3b, we have already discussed how TMT internationalization affects international strategic decision rationality and speed. Now, we discuss how international strategic decision rationality and speed are related to decision effectiveness (performance) to justify hypotheses on mediation.

International strategic decisions require dealing with different cultures, institutions, political regimes. More relevant information on these unknown foreign factors and a rational-comprehensive analysis might result in effective and successful decisions. A more informed international strategic decision will take into account the foreign environment which will result in better fit between internal sources and (foreign) environment thus resulting in effective decisions and better performance. It is well established that strategic decision rationality has a positive effect on decision effectiveness (Dean and Sharfman, 1996) and same is true in case of international strategic decision effectiveness (Ji and Dimitratos, 2013).

In case of international strategic decision speed and decision effectiveness, there can be two possibilities. International strategic decision speed can have positive effect on decision effectiveness because speedy decisions might help to capture opportunities emerging in international environment. The firms which are fast to capture potential markets might be able to get first mover advantages (Makadok, 1998) resulting in better performance (Eisenhardt, 1989; Baum and Wally 2003), and ultimately more satisfaction with that decision. On the other hand, international strategic decision speed can have negative effect on decision effectiveness (Perlow et al., 2002; Forbes, 2005). The speedy decisions might not be well informed decisions. Less informed or blind decisions in case of foreign and unknown markets might result in wrong choices which will have negative effects on decision effectiveness and performance. So, we propose these two hypotheses:

Hypothesis 4: International strategic decision rationality mediates the relationship between TMT internationalization and international strategic decision effectiveness (performance)

Hypothesis 5: International strategic decision speed mediates the relationship between TMT internationalization and international strategic decision effectiveness (performance)

2.3 METHODS

The data for this study is collected from international software firms of Pakistan during summer of 2014 via a questionnaire. The official lists of companies developed and updated by Pakistan

Software Ware Association (PASHA) and Pakistan Software Export Board (PSEB) were used to create a sample of 250 international software firms. To be included in the sample, the firms should have been locally owned (not subsidiaries of foreign firms), and have international sales. The questionnaires were dropped off by the first author in person or online (when requested). We called or personally visited the firms after one week and three weeks as a reminder, and a new questionnaire was provided if requested. We collected 91 completed questionnaires in person or online. We dropped 7 questionnaires out of 91 because of incomplete responses. We checked for non-response bias by comparing the age of respondent and non-respondent firms. The T-test did not reveal any significant difference between respondents and non-respondents. The questionnaire was filled by CEO or any other top manager who was involved in that international strategic decision of interest. The respondents were asked to focus on the most important foreign market entry decision when answering the survey questions. We used foreign market decision in our study because it is recognized in international business literature as one of the most critical strategic decisions taken by an international firm (Ellis, 2000; Bruneel et al., 2010). The focus on most important entry decision might be useful in reducing recall bias which might be a potential threat for such studies. Another advantage is that firms provided data on a similar type of international strategic decision rather than different types of strategic decisions which might result in unnecessary variance. The information on top management team profile (independent variable) was rechecked when collecting the questionnaire from the firm. To check the reliability of dependent variables, we conducted 16 short interviews of responding top managers after collecting the questionnaires. The interviews also provided useful insights in to the phenomenon of interest. We will provide few relevant insights from interviews in the discussion section.

The questionnaire used for data collection was pre-tested by 3 academics and 3 top managers of IT firms of target population. To control for the effect of common method variance we used several ex-ante and ex-post approaches suggested by Chang et al. (2010) and Podsakoff et al. (2003). The questionnaire has a mix of factual data questions (e.g. TMT profile) and perceptual questions. The perceptual measures' items were based on previously developed scales; the dependent and independent variables were placed on different pages and in different sections, with different types of scales; scales have reversed coded items; and we assured a complete anonymity to the respondents. Our model is a mediation model which is less likely to have common method variance (Chang et al., 2010). Furthermore, to reduce the threat of common method variance we also used filler variables between our variables (Johnson et al., 2011). Nevertheless, we checked the possibility of common method variance with Harman's single factor test with our 3 perceptive measures. It resulted in 3 factors having eigenvalues more than 1, also the first factor accounted for only 36% of variance. It means that common method variance is not a serious issue in this study. Table 1 shows the psychometric properties of our three perceptive measures used in this research: decision rationality, environmental uncertainty (control variable), and decision effectiveness. The factor analysis suggested a three factors solution. A principal component analysis resulted in three factors with eigenvalues more than 1, and all the items loaded clearly on the relevant factors with all the loadings in required range. Next, we conducted the confirmatory factor analysis (CFA). Each item was constrained to load on the respective variable. The results of CFA shows a reasonable fit of the model ($\chi 2$ = 26.75; d.f. = 24 with a $p>0.10$; CFI = 0.991; TLI = 0.986; RMSEA = 0.037; SRMR = 0.069). All the loadings of items were significant. Furthermore, we conducted another CFA in which we constrained the items of rationality and decision effectiveness on a single factor (combined both

of them). The model fit is poor compared to the original model ($\chi 2$ = 70.68; d.f. = 26 with a p<0.001; CFI = 0.848; TLI = 0.790; RMSEA = 0.143; SRMR = 0.113). We conducted a third CFA in which we constrained the items of all three perceptive measures on a single factor. The model fit is poor as compared to the first two CFA models ($\chi 2$ = 124.97; d.f. = 27 with a p<0.001; CFI = 0.667; TLI = 0.556; RMSEA = 0.208; SRMR = 0.157). These results combined with other psychometric properties (PCA and Cronbach's alphas) of our perceptive constructs provide further evidence that international strategic decision rationality and decision effectiveness are two different constructs. Furthermore it provides evidence that our model is the most appropriate model fitting the data. A comparison of the first CFA model and the third CFA model provides further evidence that common method variance is not an issue in this study (a model with three factors has better fit than a single factor model). To further establish the reliability of these constructs we calculated construct reliability through Cronbach's alpha. The Cronbach's alphas of our three perceptive measures are above the cut-off value of 0.70. These results show that our measures have acceptable psychometric properties.

Insert Table 1 about here

Measures and Reliability

TMT internationalization is measured as the proportion of TMT members with international experience before that foreign market entry decision multiplied by experience of TMT in numbers of six continents (Asia, Africa, Europe, North America, South America, and Australia). This way we measured not only the level of international experience of TMT (Carpenter et al. 2001; Nielson and Nielson, 2011) but also the breadth or diversity of international experience of

TMT (Athanassiou and Roth, 2006). International strategic decision rationality is adapted for this study from four items scale (α = 0.86) of (Elbanna and Child, 2007a) based on rationality scale of Dean and Sharfman (1993, 1996)[10]. International strategic decision speed is measured as approximate number of days taken for the decision following Forbes (2005). For data analysis the figure was logged and then multiplied by -1. The performance is measured as decision effectiveness. It is measured by two questions about decision effectiveness (α = 0.78) taken from Kale et al. (2002), also used in a similar study in international business by Ji and Dimitratos (2013). The choice of decision effectiveness as a performance measure is guided by the suggestions of using outcome measure at the level of unit of analysis (Rajagopalan et al. 1993; Papadakis et al. 2010). The main statements of our three perceptive constructs are provided in Table 1. We also used control variables at the time of decision of interest. Firm age is measured as the number of years from foundation of firm to the decision of interest. Firm international experience is measured as the number of countries entered before decision of interest, and environmental uncertainty (of country of entry) is measured with three items scale (α = 0.72) following Ji and Dimitratos (2013). TMT size is measured as the number of top managers at the time of decision of interest mentioned by the responding top manager (e.g. CEO), and TMT tenure is measured as the average tenure of TMT members with the firm till time of decision of interest. We also included a dummy variable (if TMT changed or not) to capture changes in the TMT since the decision of interest following Bruneel et al. (2010).

We collected data for this study from Pakistan (a developing country). It is well recognized that survey data collection is difficult in developing countries (Hoskisson et al.,

[10] 5 items were used. We deleted the 4th item which was conceptually similar to the 3rd item but was reverse coded and had a high covariance with the 3rd item. It was problematic in factor analysis (CFA). At the end we have 4 items similar to Elbanna and Child (2007a, 2007b).

2000). It was not possible to collect data from multiple top managers because they considered it too much time consuming. The same issue is faced by other researchers in developing countries (e.g. Elbanna and Child, 2007b; Musteen et al., 2014). The use of a subjective measure of decision performance was driven by the fact that all these firms are privately held and not willing to share objective performance. Due to same restraint similar studies have already used subjective measures of performance (Priem et al., 1995; Elbanna and Child, 2007a). As the data collected for this study is from a single source and about a decision in past, we tried best to check and establish reliability of our data through different sources. The information on firm age and internationalization is cross checked through online sources such as company websites, industry websites, and Linkedin. The information on TMT is crosschecked by responding top manager or HR/Administration department of the firm, and in some cases by Linkedin. The reliability of data on decision rationality, decision speed, and decision effectiveness is checked and established through short (15-20 min) interviews of responding top managers of sixteen firms after collecting back the questionnaire (within 2 to 3 days). We crossed tabulated the main points of interviews with corresponding scores and numbers provided in the relevant questionnaires in Table 6. The interviews in general show that data provided in the questionnaires are reliable. By combining the self administered surveys and interviews in this study, we respond to the recommendation of collecting data directly from managers and combining qualitative and quantitative data in upper echelons studies (Pettigrew, 1992).

2.4 DATA ANALYSIS AND RESULTS

Table 2 shows the means, standard deviations, and correlations of study variables. A look at correlations in Table 2 gives early insights of relationships among constructs in our study. The

correlations among TMT internationalization, strategic decision rationality, and decision effectiveness are in the expected directions. The correlation between TMT internationalization and decision speed is negative as hypothesized in hypothesis 3b. The correlation between decision speed and decision effectiveness is positive but low in magnitude. A high level of multicollinearity can be problematic in regression analysis. We checked for the multicollinearity in our data. There is no threat of multicollinearity in our data as the highest variance inflation factor is less than 3 which is well below the recommended cut-off value of 10 (Neter et al., 1990).

Insert Table 2 about here

We used hierarchical regression to test our hypotheses. We used Baron and Kenny (1986) approach for testing the mediation. Due to heteroskedasticity problem, we estimated the parameters with robust standard errors of rationality models (Breusch-Pagan/Cook-Weisberg test gave $\chi 2$ of 4.83, $p<0.05$) and decision effectiveness model 7 involving rationality (Breusch-Pagan/Cook-Weisberg test gave $\chi 2$ of 4.55, $p<0.05$). Table 3 presents the regression results for the effect of TMT internationalization on decision rationality, Table 4 presents the regression results of effect of TMT internationalization on decision speed, and Table 5 presents the regression results of effects of TMT internationalization on decision effectiveness (performance) and two mediation hypotheses.

Insert Tables 3, 4, & 5 about here

The regression results in Table 3 confirmed hypothesis 2, predicting a positive association between TMT internationalization and strategic decision comprehensiveness ($p < 0.01$). The regression results in Table 4 about strategic decision speed do not confirm hypothesis 3a or 3b. The correlation between TMT internationalization and strategic decision speed is negative but this association was not significant in the regression model.

Model 6 in Table 5 confirmed hypothesis 1, positing a positive association between TMT internationalization and decision effectiveness ($p < 0.05$). We used Baron and Kenny (1986) approach for mediation analysis of hypotheses 4 and 5. Model 2 in Table 3 combined with models 6 and 7 in Table 5 support the hypothesis 4, positing a mediating role of strategic decision rationality between TMT internationalization and strategic decision effectiveness (performance). When we included TMT internationalization with strategic decision rationality and strategic decision effectiveness, the coefficient of TMT internationalization became smaller and insignificant while the coefficient of strategic decision rationality is significant ($p < 0.01$). It confirms the hypothesis 4 about mediation role of decision rationality. Similar analyses with strategic decision speed in model 4 in Table 4 combined with models 6 and 8 in Table 5 do not support hypothesis 5 about a mediating role of strategic decision speed between TMT internationalization and strategic decision effectiveness (performance). Based on the methodological advice of Kenny (2009) and following the recent similar studies (Mihalache et al., 2014; Simsek and Heavey, 2011), we did not include two mediators decision rationality and decision speed in the same regression model due to a high correlation between them ($r = -0.35$)[11].

[11] By including both mediators in the same model of decision effectiveness, the coefficient of decision speed becomes marginally significant and positive ($p < 0.1$) but the results of mediation analysis do not change. These results are further supported by the bootstrapping method of mediation.

We also used Hays (2009) recommended bootstrapping method for mediation analysis to test our two mediation hypotheses (4 and 5) simultaneously. Bootstrapping have several advantages over traditional Baron and Kenny (1986) approach including the possibility of simultaneously testing multiple mediating hypotheses taking in account of other mediators and control variables. Also this approach does not require large sample size for analysis like SEM (structural equation modelling). Table 7 shows the results of bootstrapping mediation analyses. The results show that strategic decision rationality mediates the relationship between TMT internationalization and decision effectiveness (0 is not included in the 95% confidence intervals) but strategic decision speed does not mediate the relationship between TMT internationalization and decision effectiveness (0 is included in the 95% confidence intervals).

Insert Table 7 about here

2.5 DISCUSSION

The purpose of this study was to test the effect of TMT internationalization on international strategic decision rationality and international strategic decision speed (decision process). We also tested if strategic decision rationality and strategic decision speed mediate the positive relationship between TMT internationalization and strategic decision effectiveness (performance). Our results show that TMT internationalization has a positive effect on strategic decision rationality. Also the positive effect of TMT internationalization on strategic decision effectiveness is mediated by strategic decision rationality. The hypotheses related to strategic decision speed are not supported. Our study shows that more informed (rational-comprehensive) strategic decisions are more effective decisions in international firms. TMT internationalization

can be one way to achieve high level of rationality in international strategic decisions because an internationalized TMT has the international experience and availability of international information (from foreign ties) which helps them to be more rational in international strategic decision making. The insights from interviews are consistent with these findings. For example, the CEO of a company told us about the most important (first) foreign market entry decision of his firm and his dissatisfaction with that decision and performance in that foreign country. He mentioned that TMT members did not have international experience and international ties to get relevant information about their target country. They regretted that they should have collected more and relevant information before investing in their target country. The performance was not satisfactory and they were thinking to close-down their subsidiary in their target country. Another CEO told us how his and another top manager's friends (class-mates of their foreign education) in two western countries helped them to decide which foreign country to enter (first foreign entry). He mentioned that they collected useful information from their friends and also requested their friends to get more information from other sources. It took them nine months to decide which country to enter. They said that time and effort paid off. They were extremely satisfied with the performance in their target country.

We did not find any support for the hypotheses on international strategic decision speed from our data. The correlation between TMT internationalization and international strategic decision speed is negative however the regression coefficient is not significant. A possible explanation is that both effects of TMT internationalization on international strategic decision speed hypothesized in two hypotheses on international decision speed are in to play. As our results show that TMT internationalization has a positive effect on international strategic

decision rationality, this tendency to be more rational can have significant effects on speed of decision making. This point is supported if we look at the correlation between international decision rationality and speed: it is negative and high in magnitude. On the other hand it is possible that some internationalized TMTs are fast in international strategic decision making. These two competing effects together might result in a non-significant effect of TMT internationalization on international strategic decision speed. It calls for further research for investigating the association between TMT internationalization and international strategic decision speed. The relationship between decision speed and decision effectiveness is positive but weak in magnitude. As a whole, we did not find any support for international strategic decision speed mediation hypothesis.

We contribute to the literature on upper echelons theory in context of international business and international firms by explicitly examining the effect of TMT internationalization on strategic decision making process in international firms. We showed that TMT internationalization affects international strategic decision making process and this process further transfers this effect on international strategic decision effectiveness (performance). Earlier research have shown that international strategic decision rationality is positively associated with decision and firm effectiveness (Ji and Dimitratos, 2013; Jones et al., 1992), this paper showed that TMT internationalization provides one way of achieving the required rationality in international strategic decisions and subsequently more effective decisions. It provides evidence that TMT internationalization and (decision/firm) performance are far-away in causal chain and there are processes such as decision rationality that mediates this relationship. We also contributed to the literature on strategic decision making in international firms with an

explicit focus on process view. There are limited numbers of studies which explicitly examined the antecedents of strategic decision rationality and strategic decision speed together in context of international firms, but still some potential factors are not investigated such as TMT internationalization. In an effort to open the black box of upper echelons theory (Hambrick, 2007), we also tried to disentangle the decision making processes that relate the (decision/firm) performance of international firms to TMT characteristics. In this way, in an effort to open the black box of upper echelons theory (Hambrick, 2007), we also provided a potential answer to the question that how does TMT internationalization affect performance (i.e. decision effectiveness). We also demonstrated that by using their knowledge (personal and acquired from foreign ties) TMT internationalization provides competitive advantage in terms of decision making which can have substantial effects on decision and firm performance (Ji and Dimitratos, 2013; Jones et al., 1992).

This research might have implications for international firms in terms of selection and training of their managers. First, our results suggest that international firms, when selecting their TMT members should pay a great deal of attention to their international experience. Also, international firms can train and develop their middle level managers in a way which will give them functional experience as well as international experience and exposure (e.g. rotation of middle managers to different countries). This kind of international experience can help to develop useful human and social capital which might be an important asset when these middle managers will become a part of TMT.

Our study has limitations like any other study. First of all is that we collected our data from a single industry of a developing country, therefore the results may not be generalizable to other industries and developed countries. However, a focus on a single industry and a single country is a reasonable choice because it helps to avoid undesirable variance due to industry and country differences. Second, our study may have retrospective bias because the most important foreign market entry decision of firms in our sample was taken a few years before our survey. But we collected data on *most* important foreign market entry decision of a firm, and we hope that respondents might not have had any difficulty in recollecting decision related information for this study. To address this issue, we also conducted sixteen interviews to check the reliability of our data. Third, our data were collected from a single respondent. As mentioned in the methods section, collecting data from a second respondent is very difficult in a developing country like Pakistan, and this issue is well recognized in literature (Hoskisson et al., 2000). We tried to check the reliability of our data with interviews as mentioned before. Finally, we have used international experience of top managers as a proxy for TMT internationalization. We argued that the effect TMT internationalization on decision rationality comes from two sources of international knowledge: personal international experience of TMT and their ability to collect international information from their international ties. This use of proxy is a limitation of this study like other studies in upper echelons. An interesting extension might be to show explicitly that the positive effect of TMT internationalization on decision rationality comes from above mentioned two sources. Another extension of our work would be to explore the conditions or moderating variables under which TMT internationalization affects strategic decision making process and strategic decision effectiveness. An extension might be to consider other dimensions of TMT internationalization such as nationality diversity in analyzing a link between TMT

internationalization and strategic decision making processes. Also, similar studies conducted in developed countries and different industries are needed to generalize the findings of this study.

2.6 CONCLUSIONS

Our study shows that TMT internationalization (in terms of international experience) enables a firm to make more rational decisions and thus able to make more effective and successful international strategic decisions. The ability to make effective and successful international strategic decision could have positive effects on overall performance of the firm.

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2.8 EXHIBITS

TABLE 1

Cronbach's Alphas and Principal Component Analysis

Item	Rationality	Uncertainty	Decision effectiveness
1. looked for related information	0.92		
2. Analyzed relevant information	0.93		
3. Used analytic techniques	0.73		
4. Focused attention on crucial information	0.70		
1. General stability of the political, social, and economic conditions*		0.85	
2. Risk of converting and repatriating income		0.80	
3. Risk of nationalization		0.75	
1. Primary objective achieved			0.89
2. Overall satisfaction			0.86
Eigenvalues	3.22	1.22	2.13
Variance explained percentage	36	13	24
Cumulative variance explained	36	49	73
Cronbach's alpha	.86	.72	.78

Loadings less than 0.45 are not reported
* is reverse coded

TABLE 2

Correlations and Descriptive Statistics

VARIABLES	1	2	3	4	5	6	7	8	9	Mean	S.D.
1.TMT internationalization	1									2.028929	1.195419
2.Decision speed*	-0.1802	1								-3.63488	1.309128
3.Decision rationality	0.4024	-0.3526	1							4.880952	1.312289
4.Decision effectiveness	0.2312	0.0844	0.3413	1						5.505952	1.034041
5. TMT size	0.3239	-0.2105	0.2495	-0.0325	1					2.845238	1.047016
6.TMT tenure	0.0072	-0.0787	0.0615	-0.2278	0.2544	1				2.232976	2.412361
7. Firm age	-0.0045	-0.1324	0.0073	-0.1701	0.0994	0.7719	1			2.714286	2.695697
8.Firm international experience	0.1981	-0.156	0.085	-0.0535	0.1279	0.2449	0.2772	1		1.321429	1.994938
9.Uncertainty	0.0182	-0.0664	0.0239	-0.1812	-0.0041	-0.0521	-0.0788	0.0888	1	2.452381	1.162829

Note: Correlations with the absolute value greater than 0.19 are statistically significant at $p<0.10$ and 0.22 are statistically significant at the $p<0.05$ or lower level

* Transformed variable

TABLE 3

Regression Analysis for International Strategic Decision Rationality

VARIABLES	(1) Model 1	(2) Model 2
Firm age	-0.0353	-0.0378
	(0.0899)	(0.0856)
Firm international experience	0.0449	0.000650
	(0.0679)	(0.0800)
Uncertainty	0.0169	0.0180
	(0.119)	(0.114)
TMT size	0.299**	0.147
	(0.130)	(0.126)
TMT tenure	0.0264	0.0528
	(0.0939)	(0.0961)
TMT change	0.213	0.209
	(0.285)	(0.290)
TMT internationalization		0.399***
		(0.126)
Constant	3.910***	3.536***
	(0.606)	(0.601)
Observations	84	84
R-squared	0.072	0.185
F test model	1.121	2.316**

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 4

Regression Analysis for International Strategic Decision Speed

VARIABLES	(1) Model 3	(2) Model 4
Firm age	-0.0981	-0.0974
	(0.0869)	(0.0870)
Firm international experience	-0.0706	-0.0578
	(0.0758)	(0.0773)
Uncertainty	-0.0737	-0.0740
	(0.124)	(0.124)
TMT size	-0.272*	-0.228
	(0.144)	(0.152)
TMT tenure	0.0818	0.0743
	(0.0986)	(0.0991)
TMT change	-0.128	-0.127
	(0.330)	(0.331)
TMT internationalization		-0.115
		(0.129)
Constant	-2.471***	-2.364***
	(0.541)	(0.555)
Observations	84	84
R-squared	0.084	0.093
F test model	1.171	1.114

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 5

Regression Analysis for International Strategic Decision Effectiveness

VARIABLES	(1) Model 5	(2) Model 6	(3) Model 7	(4) Model 8
Firm age	-0.0125	-0.0138	-0.00420	-0.00631
	(0.0679)	(0.0661)	(0.0538)	(0.0668)
Firm international experience	0.0174	-0.00756	-0.00772	-0.00309
	(0.0593)	(0.0587)	(0.0532)	(0.0590)
Uncertainty	-0.177*	-0.176*	-0.181*	-0.170*
	(0.0970)	(0.0944)	(0.0917)	(0.0948)
TMT size	0.0248	-0.0608	-0.0984	-0.0432
	(0.112)	(0.115)	(0.0865)	(0.117)
TMT tenure	-0.0925	-0.0776	-0.0911	-0.0834
	(0.0771)	(0.0753)	(0.0637)	(0.0757)
TMT change	0.261	0.259	0.206	0.269
	(0.258)	(0.251)	(0.251)	(0.252)
TMT internationalization		0.225**	0.123	0.234**
		(0.0982)	(0.0904)	(0.0989)
Decision rationality			0.255**	
			(0.107)	
Decision speed				0.0773
				(0.0873)
Constant	6.018***	5.807***	4.905***	5.990***
	(0.423)	(0.422)	(0.612)	(0.470)
Observations	84	84	84	84
R-squared	0.102	0.160	0.246	0.169
F test model	1.464	2.076*	3.237***	1.909*

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 6
Interviews Main Points for the Validation of Dependent Variables Data

FIRM	Interview main points	Rationality score on a scale of 7	Time specified in days	Decision effectiveness score on a scale of 7
1	Collected and analyzed some information Took around one week or bit more Performance is OK., but not satisfied	3.4	10	5
2	Collected and analyzed extensive information Took around two and half to three months Very good results	6.4	90	6
3	Decision based on intuition Took just few days Very satisfied	1.2	2	6.5
4	Collected and analyzed good amount of information Took around two months Satisfied	6	60	5.5
5	Collected and analyzed extensive information Took around nine to ten months Extremely satisfied	7	270	7
6	Collected and analyzed good amount of information Took around three months Satisfied, but it could have been better	5.6	90	5
7	Collected and analyzed some information, but not enough Took around five to six months Performance is OK	4.2	180	5

TABLE 6 *continued*

FIRM	Interview main points	Rationality score in questionnaire	Time specified in days	Decision effectiveness score in questionnaire
8	Collected and analyzed high amount of information Took around six months Performance is OK	6	120	5
9	Collected and analyzed some information Took around five to six months Not satisfied	3.8	150	4
10	Collected and analyzed some information but intuition was important Took just few days Performance OK, but not satisfied	4.2	2	5
11	Collected and analyzed information but not enough Took around one to two months Not hundred percent satisfied	4.8	45	5
12	Collected and analyzed good amount of information Took around three to four months Performance is OK, but not satisfied	5.8	120	4.5
13	Collected and analyzed extensive information Took around two months Satisfied, it is improving	6.8	60	5
14	Collected and analyzed extensive information Took around two months Very satisfied	6.4	60	6.5

TABLE 6 *continued*

FIRM	Interview main points	Rationality score in questionnaire	Time specified in days	Decision effectiveness score in questionnaire
15	Collected and analyzed enough information, but not extensive Took around two to three weeks Very satisfied	5.2	20	6
16	Collected and analyzed good amount of information but fast Very fast. Took around one to two weeks Very satisfied	5.4	10	6.5

TABLE 7

Bootstrapping Mediation Analysis for International Strategic Decision Effectiveness

Mediator	Confidence intervals	Lower	Upper
Decision Rationality	Bias Corrected Confidence Intervals	.0468	.2778
	Percentile Confidence Intervals	.0350	.2446
Decision Speed	Bias Corrected Confidence Intervals	-.1162	.0171
	Percentile Confidence Intervals	-.0955	.0240

Indirect effect of TMT internationalization on decision effectiveness with decision rationality and decision speed as mediators (95% confidence intervals) using bootstrap re-samples: 5000

3. CHAPTER 3

TMT Internationalization and International Strategic Decision Rationality: The Mediating Role of International Information[12]

[12] Paper accepted at EGOS Conference 2015.

3.1 INTRODUCTION

Knowledge is one of the most important strategic resources of a firm (Grant, 1996). The international knowledge and information can be a key success factor for international firms as they have to deal with foreign unknown markets with different types of cultures, governments, and competitors. Firms dealing with international markets have two sources of international knowledge and information: top management team international experience (personal international knowledge and information) and international information acquired from external sources (Fernhaber et al., 2009). External sources of international information can be local or foreign (Levin and Bernard, 2013). Managers of international firms use their foreign contacts or ties to access international knowledge and information for international strategic decisions (Ellis, 2011; Kotabe et al., 2011; Levin and Bernard, 2013). This international knowledge and information on different cultures, governments, institutions and other critical factors helps in making more careful and rational (well informed) international strategic decisions (Child and Hsieh, 2014). More careful and rational international strategic decisions lead to more effective international strategic decisions (Ji and Dimitratos, 2013) and better firm performance (Jones et al., 1992). Azam et al. (2014) found that TMT internationalization provides the required fit in terms of international knowledge and information required for more rational and effective international strategic decisions. They proposed and tested that TMT internationalization has a significant positive effect on international strategic decision rationality. As the rationality of a decision is a function of relevant knowledge and information (Elbanna and Child, 2007a), they argued that TMT internationalization provides the relevant international knowledge and information through: (1) international experience (personal international knowledge and information) and (2) international information collected from managerial international contacts

(information relevant to international strategic decision collected from international contacts of top managers). In their analysis and method to test their hypothesis they used only TMT international experience (i.e. TMT internationalization)[13] and used it not only to represent the international experience of TMT but as a proxy of international information collected from managerial international contacts. They assumed that TMT international experience is positively associated with the ability of a TMT to collect decision related international information from international contacts and ties. This assumption is based on previous research which suggested that international experience of a TMT is positively associated with international personal contacts and ties (Ellis, 2000) which helps international information collection (Ellis, 2011; Yli-Renko et al., 2002). In other words, they assumed that TMTs with international experience are able to access more international information which combined with their personal international knowledge and information influence international strategic decision rationality. Unfortunately, their assumption remains unexplored. Following the suggestion of Goll and Rasheed (2005) that TMT proxy based studies should be followed by explicitly testing their assumptions, in this paper we explicitly tested Azam et al. (2014) assumptions and showed that TMT internationalization effect on international strategic decision rationality comes from: international experience (personal international knowledge and information) and international information collected from managerial international contacts. In other words, we are testing whether TMT internationalization has a direct effect on international strategic decision rationality and an indirect effect through international information collected from managerial international contacts. For this purpose we developed and tested a framework based on these two questions: Is TMT internationalization positively associated with international information

[13] They operationalized the TMT internationalization as the TMT international experience, and we have used the same operationalization for TMT internationalization.

collected from managerial international contacts? Does International information collected from managerial international contacts[14] partially mediate the relationship between TMT internationalization and international strategic decision rationality? We propose a partial mediation model in which: (1) TMT internationalization is positively associated with international strategic decision rationality – here based on insights from prior research we assumed that TMT internationalization effect comes from two sources: personal international experience and international information collected from managerial international contacts[15]; (2) TMT internationalization is positively associated with international information, and (3) international information is further positively associated with international strategic decision rationality – here in (2) and (3) we isolated the effect of international information. The partial mediation means that the effect of TMT internationalization on international strategic decision rationality comes from: international experience (direct) and international information (indirect). Through this analysis we have disentangled the effect of international experience and international information on international strategic decision rationality.

To answer our questions we used upper echelons theory (Hambrick and Mason, 1984). According to upper echelons theory organizational outcomes are substantially influenced by top management characteristics. In an extended version of upper echelons, Geletkanycz and Hambrick (1997) suggested that not only top management team personal experience (human capital) but also top management team's external ties (social capital) and information acquired from these sources has significant effect on strategic decisions. Building on this argument, we

[14] Now on, we will mostly use only 'international information' for simplicity.
[15] Same assumption like Azam et al. (2014). This is the base-line hypothesis which we want to open-up.

propose that TMT internationalization positively affects international strategic decision rationality, and this effect comes from: international experience and international information.

Our study makes several contributions. First, we contribute to literature on upper echelons and strategic decision making in context of international firms by disentangling the mechanisms that link TMT internationalization to international strategic decisions making rationality. Following Goll and Rasheed (2005) suggestions that TMT proxy based studies should be followed up by explicitly testing the theoretical relationships showed by TMT proxies, in this paper we tested Azam et al. (2014) assumptions and showed that TMT internationalization effects on international strategic decision rationality come from: international experience and international information. Second, we contribute to research on top management teams (as teams) by combining the internal and external perspectives on top management teams in context of international firms. This study helps in understanding how the composition of TMTs in international firms may affect their capability to access useful information from international (outside) sources which might affect their ability to make rational strategic decisions. Finally, our study shows that how do managers of international firms acquire cross-border knowledge using their interpersonal foreign ties/contacts (a micro level perspective) which affects their decision making capability. By doing so, we contribute to the scarce literature of cross border knowledge transfer and its use in international firms with an explicit micro level perspective.

The paper is organized in the following way. First, we briefly review the literature on strategic decision making and then develop the hypotheses. This is followed by methods section. Next are results with discussion, contributions, and limitations of this study.

3.2 THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

According to Fredrickson and Mitchell (1984), it is useful to look at the organizational strategy formulation as a decision making process: how organizations make strategic decisions. Strategic decision making research is divided in two main categories: strategic decision content and strategic decision process (Elbanna and Child, 2007a). The research on strategic decision content deals with types of strategies such as mergers and acquisition, diversification, portfolio management (Elbanna, 2006) and the research on strategic decision process deals with the actual process of how strategic decisions are made (Fredrickson and Mitchell, 1984) and focus on rationality (or comprehensiveness), speed, politicization and other characteristics of strategic decision making process. Strategic decision process research is further divided in to two streams, one is focusing on formulation of strategic decisions and the other one focused on implementation of strategic decisions (Schwenk, 1995).

Our research takes a process view of the strategic decision making and focuses on how TMT characteristics or composition affects the formulation of strategic decisions in international firms with a main focus on international strategic decision rationality. Dean and Sharfman (1996, p. 373) defined decision rationality as "*the extent to which the decision process involves the collection of information relevant to the decision and the reliance upon analysis of this information in making the choice*". In general, decision making rationality has long been recognized as a central aspect of strategic decision making and it has been empirically investigated intensively (Elbanna and Child, 2007b). Rationality in strategic decisions is an important subject for research and practice because strategic decision rationality can have substantial positive effects on strategic decisions effectiveness and subsequently on firm

performance (Dean and Sharfman, 1996). Due to its importance for decision effectiveness and performance, several researchers have explored the antecedents of strategic decision rationality (Goll and Rasheed, 2005; Elbanna and Child, 2007a). However, the focus on rationality in the international business literature is scarce despite of its importance in international strategic decision making process (Ji and Dimitratos, 2013; Child and Hsieh, 2014). Jones et al. (1992) found a positive relationship between strategic decision making in international firms and performance. Ji and Dimitratos (2013) found a positive relationship between international strategic decision rationality and decision effectiveness. Recognizing the importance of international strategic decision rationality, Azam et al. (2014) showed that TMT internationalization (international experience of TMT) has a positive association with international strategic decision rationality, and international strategic decision rationality is further positively associated with decision effectiveness. Like most of upper echelons studies, Azam et al (2014) relied on a (logical) proxy (Hambrick, 2007) to represent the two sources of effect: international experience and international information. They did not explicitly test whether international experience and international information have separate effects on international strategic decision rationality. In a response to Goll and Rasheed (2005) call that TMT proxy based studies should be followed up by explicitly testing the theoretical relationships showed by TMT proxies, in this study, we built on Azam et al. (2014), and explicitly tested whether the positive effect of TMT internationalization on international strategic decision rationality comes from: TMT international experience (personal international knowledge and information) and international information collected from managerial international contacts.

We use upper echelons theory as our main theoretical framework (Hambrick and Mason, 1984). According to upper echelons theory organizational outcomes are significantly influenced by TMT characteristics and composition. In line with upper echelons theory, TMT composition in terms of international experience of its members affects international strategic decisions and performance of an international firm (Nielsen, 2010). The internationalization of TMT provides international experience (personal international knowledge and information) and access to international information through managerial international contacts which might affect international strategic decision rationality.

TMT internationalization and international strategic decision rationality

An internationalized TMT tends to have international experience and international ties (Sambharya, 1996). TMTs with international experience have personal international knowledge and information which can be useful in international strategic decision making (Fernhaber et al., 2009; Nielson, 2010). In addition to this personal international knowledge and information TMT members with international experience can acquire international information from their international social ties (Ellis, 2011; Kotabe et al., 2011) which can have substantial effects on international strategic decision making. TMT members with international experience are more likely to have a global mindset which will increase the probability of their recognizing, accepting, interpreting and utilizing the knowledge from different international sources (Gupta and Govindarajan, 2002). It is already established that international social ties provide useful information to international firms (Levin and Barnard, 2013) and the access to useful knowledge from outside sources positively affects the exploitation of that knowledge for organizational outcomes (Yli-Renko et al., 2002). Moreover a specific composition of TMTs (in terms of

international experience) may affect their capability to access useful information from outside sources (Hass and Banerjee, 2008) which will affect their ability (to exploit it) to make rational strategic decisions. This discussion is in line with Burt (1992), who suggested that social capital provides access to information and references (e.g. friends of friends), and references can be used to acquire more information. The availability of relevant knowledge and information from (1) personal international experience and (2) international contacts to an internationalized TMT might positively affect international strategic decision rationality (Child and Hsieh, 2014). This proposition is based on the argument that rationality of a decision is the extent to which decision related information is collected and processed during decision making (Dean and Sharfman, 1996). On the basis of previous discussion, we propose:

Hypothesis 1: TMT internationalization is positively associated with international strategic decision rationality

TMT internationalization and international information

Top managers use their ties to get useful information for strategic decision making (Geletkanycz and Hambrick, 1997). An internationalized TMT tend to have more international ties and contacts (Athanassiou and Nigh, 2002) and thus can collect more international information on a strategic decision (Yli-Renko et al., 2002). Ellis (2011) found that international experience of managers is positively correlated with international information collection from international ties. Internationalized TMTs have managers with international living, working, and educational experiences. During these international experiences managers are likely to make strong international networks and friends. The international network and foreign friends are the unique

(international) social capital which can be helpful in accessing useful information (Burt, 1992). Building on this discussion, we argue that TMT internationalization is positively associated with the ability of a TMT to collect international information collected from managerial international contacts. We hypothesize:

*Hypothesis 2: TMT internationalization is positively associated with international information (*collected from managerial international contacts*)*

International information as mediator between TMT internationalization and international strategic decision rationality

In hypotheses 1 and 2, we have discussed that TMT internationalization has a positive association with international strategic decision rationality and international information collected from managerial international contacts. It is reasonable to anticipate that international information mediates the positive relationship between TMT internationalization and international strategic decision rationality. We have already discussed the relationship between TMT internationalization and international information, now we discuss how international information affects international strategic decision rationality.

Rationality of a decision is a function of availability of related information (Elbanna and Child (2007). In case of international strategic decision the requirement is decision related international information (Child and Hsieh, 2014). When the management of an international firm has access to more relevant international information on an international strategic decision, it might be able to use more of this information (Yli-Renko et al., 2001) in decision analysis. The

availability and analysis of relevant information makes decision more rational (Dean and Sharfman, 1996). On the basis of previous discussion, we hypothesize:

Hypothesis 3: International information (partially) mediates the relationship between TMT internationalization and international strategic decision rationality

A partial mediation means that the effect of TMT internationalization comes from TMT international experience and international information collected from managerial international contacts.

3.3 METHODS

We collected data for this study with a survey from international software firms of Pakistan during summer of 2014. Our sample of software firms was drawn from lists of software firms developed and updated by Pakistan Software Export Board (PSEB) and Pakistan Software Ware Association (PASHA). We identified 250 international software firms based on the criteria: firm should have international sales and the firm should be locally owned (not a subsidiary of a foreign firm). The survey questionnaire was dropped off in person by the first author or sent online (where requested by a firm). As a reminder, we personally visited or called the firms after one week and three weeks. We provided a new questionnaire if requested by a firm. In total 91 completed questionnaires were collected in person or online. Out of 91 questionnaires, we dropped 7 questionnaires due to incomplete responses. A T-test of the age of respondent and non-respondent firms did not reveal any significant difference between respondents firms and non-respondents firms. The survey questionnaire was filled by CEO or any other top manager

who was directly involved in the most important foreign market entry decision. The survey questionnaire asked the respondents to focus on the most important foreign market entry decision of their firm when answering the questions. Foreign market entry decision in our study was chosen due to its importance in international business literature as one of the most important strategic decisions taken by an international firm (Ellis, 2000; Bruneel et al., 2010). Another advantage of focusing on the most important foreign market decision is that all firms provided data on one type of strategic decision rather than different types of strategic decisions which might help in avoiding unnecessary variance due to different types of decisions. The focus on most important entry decision can be useful in reducing recall bias which can be a potential threat for such survey based studies. We verified the information on top management team profile (main independent variable) when we collected the questionnaire from the firm. In addition, we interviewed 16 responding top managers after collecting the questionnaires to check the reliability of our main dependent variable.

We pre-tested our questionnaire by requesting 4 academics and 3 top managers of software firms to review the questionnaire. Minor adjustment was done based on these reviews. We followed the suggestions of Podsakoff et al. (2003) and Chang et al. (2010) to avoid the effect of common method variance. We employed several ex-ante (procedural) and ex-post approaches to reduce the effect of common method variance. The questionnaire for this study has a mix of factual data questions (e.g. TMT profile) with perceptive questions. The perceptual questions items were based on previously developed scales; the independent and dependent variables were placed in different sections and on different pages, with different types of scales; scales have reversed coded items; and a complete anonymity was assured to the respondents.

Furthermore, we used a mediation model in this study which is less likely to suffer from common method variance (Chang et al., 2010). We also used filler variables between our variables to reduce the threat of common method variance (Johnson et al., 2011). Nevertheless, we examined the potential of common method variance in our data. We performed Harman's single factor test with our 3 perceptive measures. It resulted in 3 factors with eigen values more than 1. The first factor accounted for only 37.77% of variance. It means that common method variance did not significantly affect the analysis and results of our study.

Table 1 shows the psychometric properties of our three perceptive measures with multi item scales used in this research: decision rationality, environmental uncertainty (control variable), and international information. The factor analysis without any rotation suggested a three factor solution with eigen values more than 1. Further, a principal component analysis with varimax rotation resulted in three factors with eigen values more than 1, and all the items loaded clearly on the relevant factors with all the loadings in required range. Next, we conducted the confirmatory factor analysis (CFA). Each item was constrained to load on the respective variable. The results of CFA shows a reasonable fit of the model ($\chi 2$ = 27.81; d.f. = 24 with a $p>0.10$; CFI = 0.988; TLI = 0.983; RMSEA = 0.043; SRMR = 0.057). All the loadings of items were significant. Furthermore, we calculated the Cronbach's alphas to check the reliability of our constructs. The Cronbach's alphas of three perceptive measures used in this study are above the required cut-off value of 0.70. These results show that our measures have reasonable psychometric properties. We tried best to present and measure constructs of international information and international strategic decision rationality as two different constructs (mediator and main dependent variable). For this purpose, we provided clear definitions of these constructs

in the introduction section of our questionnaire, we used different types of scales to measure them (international information on a 4 point scale with all 4 points have labels and rationality on a 7 point scale with only end-points have labels), placed them on different pages, and placed them in different sections with relevant context (rationality is placed in a section with questions on decision making characteristics and international information is placed in a section with questions on different sources of information acquired for decision making). Furthermore, we conducted another CFA in which we constrained the items of rationality and international information on a single factor (combined both of them). The fit of the model is poor compared to our original model ($\chi 2$ = 78; d.f. = 26 with a $p<0.001$; CFI = 0.841; TLI = 0.780; RMSEA = 0.15; SRMR = 0.095). We conducted a third CFA in which we constrained the items of all three perceptive measures on a single factor. The fit of the model is poor as compared to the first two CFA models ($\chi 2$ = 132.58; d.f. = 27 with a $p<0.001$; CFI = 0.677; TLI = 0.569; RMSEA = 0.216; SRMR = 0.147). These results combined with other psychometric properties (PCA and Cronbach's alphas) of our perceptive constructs provide further evidence that international information and international strategic decision rationality are two different constructs. Furthermore it provides evidence that our model is the most appropriate model fitting the data. A comparison of the first CFA model and the third CFA model provides further evidence that common method variance is not an issue in this study (a model with three factors has better fit than a single factor model).

Insert Table 1 about here

Measures and Reliability

We used existing scales for all the measures of our study, so that validity of measures is not an issue. TMT internationalization is measured as the proportion of TMT members with international experience before that foreign market entry decision multiplied by experience of TMT in numbers of six continents (North America, South America, Europe, Asia, and Australia). This way we measured not only level of international experience of TMT (Carpenter et al., 2001; Nielson and Nielson, 2011) but also the breadth or diversity of international experience of TMT (Athanassiou and Roth, 2006). International strategic decision rationality is adapted for this study from four items scale (α = 0.86) from (Elbanna and Child, 2007a) based on Dean and Sharfman rationality scale (1993, 1996)[16]. International information is measured with two items (α = 0.84) by adapting the knowledge sources construct from Foss et al. (2013), where one item measures the quantity of international information and the other one measures the quality of international information. The main statements of our three perceptive constructs are provided in Table 1.

We also used control variables at the time of decision of interest. Firm age is measured as the number of years from foundation of firm to the decision of interest. Firm international experience is measured as the number of countries entered before decision of interest, and environmental uncertainty (of country of entry) is measured with three items scale (α = 0.72) following Ji and Dimitratos (2013). TMT size is measured as the number of top managers at the time of decision of interest mentioned by the responding top manager (i.e. CEO), and TMT tenure is measured as the average tenure of TMT members till time of decision of interest. We

[16] 5 items were used. We deleted the 4th item which was conceptually similar to the 3rd item but was reverse coded and had a high covariance with the 3rd item. It was problematic in factor analysis (CFA). At the end we have 4 items similar to Elbanna and Child (2007a, 2007b).

also included a dummy variable (if TMT changed or not) to capture changes in the TMT since the decision of interest following Bruneel et al. (2010).

We collected data for this study from Pakistan (a developing country). It is well recognized that survey data collection is difficult in developing countries (Hoskisson et al., 2000). It was not possible to collect data from multiple top managers. The same issue is faced by other researchers in developing countries (i.e. Elbanna and Child, 2007a; Musteen et al., 2014). As the data collected for this study is from a single source and about a decision in past, we tried best to check and establish reliability of our data through different sources. The information on firm age and internationalization is cross checked through online sources such as company websites, industry websites, and Linkedin. The information on TMT (main independent variable) is crosschecked by responding top manager or HR/Administration department of the firm, and in some cases by Linkedin. The reliability of data on decision rationality (main dependent variable) is checked and established through short (15-20 min) interviews of responding top managers of sixteen firms after collecting back the questionnaire (within 2 to 3 days). We crossed tabulated the main points of interviews with corresponding scores and numbers provided in the relevant questionnaires in Table 5. The interviews in general show that data provided in the questionnaires are reliable. By combining the self administered surveys and interviews in this study, we respond to the recommendation of collecting data directly from managers and combining qualitative and quantitative data in upper echelons studies (Pettigrew, 1992).

3.4 DATA ANALYSIS AND RESULTS

Table 2 shows the correlations, means, and standard deviations of study variables. The correlations in Table 2 give initial insights of relationships among constructs in our study. The correlations among TMT internationalization, international information, and international strategic decision rationality are in the expected directions. A high level of multicollinearity can be problematic in regression analysis. We checked for the multicollinearity in our data. There is no threat of multicollinearity in our data as the highest variance inflation factor is less than 3 which is well below the desired cut off value of 10 (Neter et al., 1990).

Insert Table 2 about here

We used hierarchical regression to test our hypotheses. We used Baron and Kenny (1986) method for testing the mediation hypothesis. Due to heteroskedasticity problem, we estimated the parameters with robust standard errors. Table 3 shows the regression results for the effect of TMT internationalization on international information, Table 4 presents the regression results of effect of TMT internationalization on decision rationality and the mediation hypothesis.

Insert Table 3 & 4 about here

The regression results in Table 3 support hypothesis 2, predicting a positive relationship between TMT internationalization and international information ($p < 0.01$). The model 2 in Table 4 support hypotheses 1 predicting a positive relationship between TMT internationalization and decision rationality ($p < 0.01$). We used Baron and Kenny (1986)

method for mediation analysis of hypothesis 3. Model 2 in Table 3, and models 4, and 5 in Table 4 support the hypothesis 3, predicting that international information partially mediates the positive relationship between TMT internationalization and international strategic decision rationality. When we included TMT internationalization with international information and international strategic decision rationality, the coefficient of TMT internationalization became smaller and less significant (changed from $p < 0.01$ to $p < 0.05$) while the coefficient of international information is significant ($p < 0.01$). It supports the partial mediation hypothesis. This analysis shows that even after controlling for international information the effect of TMT internationalization (i.e. international experience) on international strategic decision rationality is significant (in statistical terms significantly different from zero). In other words, even after isolating the effect of international information (indirect effects of TMT internationalization), TMT internationalization (i.e. international experience) has a significant direct effect on international strategic decision rationality. Through this analysis we have disentangled the effect of international experience and international information on international strategic decision rationality. We also used bootstrapping method for mediation analysis suggested by Hays (2009). Table 6 presents the biased corrected and percentile confidence intervals for the mediation hypothesis. The results show that international information mediates the relationship between TMT internationalization and international strategic decision rationality. Since, 0 is not included in the 95% confidence intervals; we concluded that there is a significant indirect effect or mediation.

Insert Table 6 about here

3.5 DISCUSSION

The purpose of this study was to test whether TMT internationalization is positively associated with international information collected from managerial international contacts and does international information partially mediates the positive relationship between TMT internationalization and international strategic decision rationality; with this we tried to disentangle the effects of international experience and international information on international strategic decision rationality. Our results support our hypotheses. It means that an internationalized TMT is capable of collecting more international information from managerial international contacts; and TMT internationalization positively affects international strategic decisions with its international experience and international information collected from managerial international contacts.

We have several contributions to literature. Firstly, we contribute to literature on upper echelons and strategic decision making in context of international firms. We delved in to the mechanisms that link TMT internationalization to international strategic decisions making process (i.e. rationality). In this context, a substantial contribution to the literature is that we explicitly showed and disentangled the effects of TMT internationalization (i.e. international experience and international information) on international strategic decision rationality. Such perspective is quite different from the traditional approach of using proxies for different factors and their effects in upper echelons literature (Hambrick, 2007). The use of demographic variables is criticized in organizational research (Lawrence, 1997) and in upper echelons research (Priem et al., 1999). One criticism is that TMT characteristics (as proxies) are used to present those factors and inferences which are never tested explicitly. So, we respond to the call

that TMT proxy based studies should be followed up by additional investigations, explicitly testing the theoretical relationships showed by TMT proxies (Goll and Rasheed, 2005). Our second contribution is to research on top management teams as teams. The prior research on TMT is mostly focused either on internal perspective (TMT characteristics' effect on group processes, trust, cohesion, decision making, knowledge exploitation) or external perspective (knowledge acquisition from outside sources), and very few studies combined the two perspectives in context of international firms (Hass and Banerjee, 2008). This study is among those few studies on international firms and international TMTs that combine external and internal perspectives on teams. This study helps in understanding how the composition of TMTs in international firms may affect their capability to access useful information from outside sources which will affect their ability to make rational strategic decisions. By doing so, we have also contributed to the limited number of studies on international strategic decision making combined with use of information and the role of contacts (networks) in international business literature (Child and Hsieh, 2014). Lastly, we contributed to the literature on micro-level perspective of cross-border knowledge transfer. Levin and Barnard (2013) noted that most of the existing literature on cross-border knowledge transfer is at firm or subsidiary level (macro-level). In this study we explore how do international firms with interpersonal foreign ties of TMTs (a micro level perspective) acquire cross-border knowledge which affects their decision making capability that, in turn, might have further effect on firm performance (Jones et al., 1992; Goll and Rasheed, 2005).

Our study showed that international experience of TMT can be useful in international strategic decision making, which might affect decision and firm performance. It has implications

in terms of selection and training of managers for international firms. Firstly, when selecting their TMT members, the international firms should pay more attention to their international experience. Secondly, training of managers should include a focus on functional experience with international experience. The international experience provides useful human capital and social capital which can be a critical asset for an international firm and its top managers.

As usual our study has limitations. Firstly, our study might have retrospective bias because we collected data on the most important foreign market entry decisions of international firms, and those decisions might have taken a few years before our data collection. To handle this issue we collected data on *most* important foreign market entry decision of a firm. We hope that a focus on most important foreign market entry decision helped respondents in recollecting decision related information for our survey. Furthermore to establish reliability of our data, we conducted sixteen short interviews. Secondly, we collected data for this study from a single respondent. Data collection from multiple respondents was not possible. We have already discussed the difficulties of data collection in developing countries, which are well recognized by researchers (Hoskisson et al., 2000). Third, we collected our data at a single time and due to this limitation we can not be sure of the direction of cause and effect relationships. Finally, we collected our data from a single country and industry. Thus, the results of our study might not be generalized to other countries and industries. However, a focus on a single country and a single industry is a reasonable choice because it helps to avoid undesired variance due to country and industry differences.

An extension of our work would be to explore the conditions or moderating variables under which a TMT might collect more or less international information. An interesting factor might be the country risk in collecting and using information related to that country. Another extension might be to consider other dimensions of TMT internationalization such as nationality diversity in analyzing a link between TMT internationalization and international information collection. Also, similar studies conducted in developed countries and different industries are needed to generalize the findings of this study.

3.6 CONCLUSIONS

Previous research has demonstrated that TMT internationalization has a positive effect on international strategic decision rationality which transfers this effect to performance. We explicitly showed in this study that this positive effect of TMT internationalization comes from: TMT international experience and international information collected from managerial international contacts. This ability to make rational international strategic decision could have positive effects on decision and firm performance.

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3.8 EXHIBITS

TABLE 1
Cronbach's Alphas and Principal Component Analysis

Item	Rationality	Uncertainty	International information
1. looked for related information	.89		
2. Analyzed relevant information	.87		
3. Used analytic techniques	.74		
4. Focused attention on crucial information	.76		
1. General stability of the political, social, and economic conditions*		.82	
2. Risk of converting and repatriating income		.79	
3. Risk of nationalization		.79	
1. Extent of knowledge and information from international contacts was collected			.91
2. Extent of knowledge and information from international contacts was useful			.87
Eigenvalues	3.40	2.05	1.22
Variance explained percentage	37.77	22.78	13.58
Cumulative variance explained	37.77	60.55	74.13
Cronbach's alpha	.86	.72	.84

Loadings less than 0.45 are not reported
* is reverse coded

TABLE 2

Correlations and Descriptive Statistics

Variables	1	2	3	4	5	6	7	8	Mean	S.D.
1. TMT internationalization	1								2.03	1.19
2. International information	0.2938	1							3.12	0.78
3. Decision Rationality	0.4024	0.4238	1						4.88	1.31
4. TMT size	0.3239	0.0746	0.2495	1					2.84	1.05
5. TMT tenure	0.0072	0.1968	0.0615	0.2544	1				2.23	2.41
6. Firm age	-0.0045	0.2259	0.0073	0.0994	0.7719	1			2.71	2.69
7. Firm international experience	0.1981	0.0759	0.085	0.1279	0.2449	0.2772	1		1.32	1.99
8. Uncertainty	0.0182	-0.1246	0.0239	-0.0041	-0.0521	-0.0788	0.0888	1	2.45	1.16

Note: Correlations with the absolute value greater than 0.19 are statistically significant at $p<0.10$ and 0.22 are statistically significant at the $p<0.05$ or lower level

TABLE 3
Regression Analysis for International Information

VARIABLES	(1) Model 1	(2) Model 2
Firm age	0.0472	0.0459
	(0.0405)	(0.0373)
Firm international experience	0.0107	-0.0126
	(0.0322)	(0.0320)
Uncertainty	-0.0748	-0.0742
	(0.0700)	(0.0642)
TMT size	0.0321	-0.0481
	(0.0788)	(0.0808)
TMT tenure	0.0172	0.0311
	(0.0472)	(0.0447)
TMT change	0.101	0.0990
	(0.203)	(0.197)
TMT internationalization		0.211***
		(0.0671)
Constant	3.004***	2.806***
	(0.295)	(0.299)
Observations	84	84
R-squared	0.069	0.159
F test model	1.353	2.458**

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 4
Regression Analysis for International Strategic Decision Rationality

VARIABLES	(1) Model 3	(2) Model 4	(3) Model 5
Firm age	-0.0353	-0.0378	-0.0659
	(0.0899)	(0.0856)	(0.0951)
Firm international experience	0.0449	0.000650	0.00838
	(0.0679)	(0.0800)	(0.0738)
Uncertainty	0.0169	0.0180	0.0634
	(0.119)	(0.114)	(0.116)
TMT size	0.299**	0.147	0.177
	(0.130)	(0.126)	(0.138)
TMT tenure	0.0264	0.0528	0.0338
	(0.0939)	(0.0961)	(0.110)
TMT change	0.213	0.209	0.149
	(0.285)	(0.290)	(0.262)
TMT internationalization		0.399***	0.270**
		(0.126)	(0.120)
International information			0.612**
			(0.254)
Constant	3.910***	3.536***	1.819*
	(0.606)	(0.601)	(0.978)
Observations	84	84	84
R-squared	0.072	0.185	0.296
F test model	1.121	2.316**	2.659**

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

TABLE 5

Interviews Main Points for the Validation of Main Dependent Variable Data

FIRM	Interview main points	Rationality score on a scale of 7
1	Collected and analyzed some information	3.4
2	Collected and analyzed extensive information	6.4
3	Decision based on intuition	1.2
4	Collected and analyzed good amount of information	6
5	Collected and analyzed extensive information	7
6	Collected and analyzed good amount of information	5.6
7	Collected and analyzed some information, but not enough	4.2
8	Collected and analyzed high amount of information	6
9	Collected and analyzed some information	3.8
10	Collected and analyzed some information but intuition was important	4.2
11	Collected and analyzed information but not enough	4.8
12	Collected and analyzed good amount of information	5.8
13	Collected and analyzed extensive information	6.8
14	Collected and analyzed extensive information	6.4
15	Collected and analyzed enough information, but not extensive	5.2
16	Collected and analyzed good amount of information but fast	5.4

TABLE 6

Bootstrapping Mediation Analysis for International Strategic Decision Rationality

Confidence intervals	Lower	Upper
Bias Corrected Confidence Intervals	.0300	.2825
Percentile Confidence Intervals	.0231	.2717

Number of bootstrap resamples: 5000

4. APPENDICES

4.1 APPENDIX A1 – Survey Questionnaire

The Survey questionnaire used in this research project is presented on the following pages.

Survey on Foreign Market Entry Decision

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Survey on Foreign Market Entry Decision

This survey is a part of a Doctoral Thesis Project in the Department of Management, University of Bologna, Italy. This survey is about the **most important foreign market entry decision** (in your opinion) ever made by your firm on entering a foreign country. It can be a decision to enter a foreign market by exporting or setting-up a foreign subsidiary. Please, focus on **most important foreign market entry decision** during answering the questions and rating task. There are few other questions about your firm and Top Management Team.

This survey has a pure academic purpose and **there are no right or wrong answers**. Honest answers from you will help us to look at the real relationships between different factors/variables. We will use the information provided by you for pure academic purpose and we assure you a complete anonymity.

The results of this research might be interesting for you and your colleagues; we will share the results of this research with all the participants.

In this survey **most important foreign market entry decision** means a decision to enter a foreign market (by exporting or setting-up a foreign subsidiary) which **in your opinion** is the most important foreign entry decision.

In this survey **Top Management Team (TMT)** means those top level managers who are responsible for strategic decisions (most important decisions) in your firm. **Please, when answering the questions on Top Management Team focus on the Top Management Team which made the most important foreign market entry decision.**

In this survey **International Experience** means foreign experience (living, education, and working) outside home country.

In this survey **working experience with an international firm** means working experience with an international firm in the home country (e.g. working with an exporting firm). If the experience was acquired in a different country then this should be reported as International Experience.

In this survey **International sources (international ties)** means direct or personal international-ties or contacts (ex-colleagues, course mates, other friends) of the Top Management Team of your firm.

In this survey **Local sources (local ties)** means direct ties or contacts in local environment (personal ties in home country) of the Top Management Team of your firm.

Survey on foreign market entry decision

General Information

1. Your job title:_____

2. Name of the firm:_____

3. Number of employees in the firm:_____; Firm foundation year:_____

4. Main products of the firm:_____

5. What percent of total sales of your firm is foreign sale:_____

6. How long your firm has been involved in international business: _____

7. Is your firm a subsidiary of another firm (large company)?

Yes ☐ No ☐

8. How would you rate your firm's performance in international market relative to others firms in the industry (firms from Pakistan):

Much worse Much better
1 2 3 4 5 6 7

Foreign Market Entry Decision

Note: The international entry decision in this survey refers to the **most important foreign market entry decision** ever made by your firm on entering a foreign country.

9. Country entered:_____; **10.** Year of entry:_____

11. Mode of entry (mark only one option):

a. Exporting (sales) b. Licensing or franchising c. Joint venture subsidiary

d. Wholly owned subsidiary e. Others, please specify _____

12. Using a scale from 1 to 7, please evaluate to what extent your firm has achieved the primary objective from that foreign market entry:

Very dissatisfied Very satisfied
1 2 3 4 5 6 7

13. Using a scale from 1 to 7, please specify the overall satisfaction with that foreign market entry decision:

Very dissatisfied Very satisfied
1 2 3 4 5 6 7

14. Using a scale from 1 to 7, please rate the success of the firm in the country (most important international entry):

Very unsuccessful Very successful
1 2 3 4 5 6 7

15. How many persons were involved in most important entry decision excluding TMT members?

_____

16. In how many foreign countries your firm had already entered before that entry?

_____

17. Please think of the country of most important entry **(at the time of entry decision)** and evaluate the following statements?

a. What do you think was the general stability of the political, social, and economic conditions of the country of entry	Very unstable Very stable 1 2 3 4 5 6 7
b. What do you think was the risk of converting and repatriating your income from the country of entry	Very low Very high 1 2 3 4 5 6 7
c. What do you think was the risk of nationalization of private firms by the government of country of entry	Very low Very high 1 2 3 4 5 6 7

18. What was the main motivation of your firm to enter that country (most important entry)? (Mark only one option)

a. To seek a new market (to sell your products)
b. To seek resources (labour, natural resources)
c. To seek technology, brands, and other strategic assets
d. To seek efficient production
e. To seek local linkages
f. To learn more about that market for future expansion
g. To follow competitors
h. To follow your customers
i. Other motives, please specify _____

19. Please think of the country of most important entry, did any TMT members of your firm have direct experience (living, working, education) before that entry decision?

Yes ☐ No ☐

20. Please circle the approximate number of days it took your firm (top management team) to make the most important entry decision (from starting of decision to final decision):

2 5 10 20 30 45 60 90 120 150 180 more _____

21. During that entry decision process (most important entry decision).:…….

	Strongly disagree						Strongly agree
a) We (TMT) looked for related information extensively in making the decision	1	2	3	4	5	6	7
b) We (TMT) analyzed relevant information extensively in making the decision	1	2	3	4	5	6	7
c) Quantitative analytical techniques were important in making the decision	1	2	3	4	5	6	7
d) The decision process was mostly intuitive (not analytic)	1	2	3	4	5	6	7
e) We (TMT) focused attention on crucial information and ignored irrelevant information effectively in the decision making process	1	2	3	4	5	6	7

22. For each statement below describing the communications that happened within the Top Management Team during that entry decision making, to what extent do you agree?

	Strongly disagree						Strongly agree
a) Communications within our team were Relevant	1	2	3	4	5	6	7
b) Communications within our team were Timely	1	2	3	4	5	6	7
c) Communications within our team were Objective	1	2	3	4	5	6	7
d) Communications within our team were Clear	1	2	3	4	5	6	7
e) Communications within our team were Supportive	1	2	3	4	5	6	7
f) Communications within our team were Concise	1	2	3	4	5	6	7
g) Communications within our team were Truthful	1	2	3	4	5	6	7
h) Communications within our team were Non-confrontational	1	2	3	4	5	6	7
i) Communications within our team were Right amount	1	2	3	4	5	6	7
j) Communications within our team were Fostering teamwork	1	2	3	4	5	6	7

23. To what extent the knowledge and information from **international sources (international-ties)** was collected with regard to that entry decision?

No information	Low	Medium	high
1	2	3	4

24. To what extent the knowledge and information collected from **international sources (international-ties)** was useful with regard to that entry decision?

Not useful	Little	Medium	Very useful
1	2	3	4

25. To what extent the knowledge and information from **local sources (local-ties)** was collected with regard to that entry decision (excluding your firm)?

No information	Low	Medium	high
1	2	3	4

26. To what extent the knowledge and information collected from **local sources (local-ties)** was useful with regard to that entry decision (excluding your firm)?

Not useful	Little	Medium	Very useful
1	2	3	4

27. To what extent the knowledge and information from **sources within the firm (excluding TMT)** was collected with regard to that entry decision?

No information	Low	Medium	high
1	2	3	4

28. To what extent the knowledge and information from **sources within the firm (excluding TMT)** was useful with regard to that entry decision?

Not useful	Little	Medium	Very useful
1	2	3	4

About Top Management Team

29. How many people was part of Top Management Team in your firm at the time of the most important entry decision?

_____

30. Please provide some basic information on Top Management Team of your firm **(at the time of entry decision)**:

Top Management Team	Age	Gender	Education Level (a)	Function (b)	Nationality	Tenure with Your Firm (c)
Member 1 _____						From To
Member 2 _____						From To
Member 3 _____						From To
Member 4 _____						From To
Member 5 _____						From To
Member 6 _____						From To
Member 7 _____						From To

(a) Please use following categories: elementary degree; secondary degree; Bachelor; Master; PhD
(b) Please use the following categories: Production/Operations; Sales/Marketing; Administration/Finance; R&D
(c) Please, indicate the tenure with your firm of each top manager involved in that entry decision.

31. How many of them (TMT members) were working at the same physical location at the time of that entry decision? (Collocated at the headquarter)

_____

32. At the time of the most important entry decision, how often TMT members had face to face meetings?

Never	Few	Often	Very often
1	2	3	4

33. How many of them (TMT members) had international experience **before that entry decision?** (Tick Yes or No)

Member 1. Yes	No
Member 2. Yes	No
Member 3. Yes	No
Member 4. Yes	No
Member 5. Yes	No
Member 6. Yes	No
Member 7. Yes	No

34. Before that entry decision, describe the level of your Top Management Team's direct experience in the following regions of the world.

	No experience						Extensive experience
a. Asia	1	2	3	4	5	6	7
b. Africa	1	2	3	4	5	6	7
c. Europe (including Norway and Switzerland)	1	2	3	4	5	6	7
d. North America (US and Canada)	1	2	3	4	5	6	7
e. South America (countries south of US)	1	2	3	4	5	6	7
f. Australia and New Zealand	1	2	3	4	5	6	7

35. To what extent **the personal international experience of Top Management Team of your firm** was useful with regard to that entry decision?

Not useful	Little	Medium	Very useful
1	2	3	4

36. How many of them (TMT members) had working experience with an international firm **before that entry decision?** (In home-country) (Tick Yes or No)

Member 1. Yes No
Member 2. Yes No
Member 3. Yes No
Member 4. Yes No
Member 5. Yes No
Member 6. Yes No
Member 7. Yes No

37. Is the Top Management Team of your firm changed after that entry decision?

Yes ☐ No ☐

If Yes, How many left the team _____and how many new members entered in the team _____

<u>Thank you for your participation in this survey.</u>

4.2 APPENDIX A2 – Short Interview Protocol

The short interview protocol used in this research project is presented on the following pages.

Interview Protocol

Date:

Name of the firm:

Name of the person:

Age of the person:

Gender of the person:

Official job title of the person:

This interview is the second part of data collection from your firm. In the first part, I collected data from your firm by a survey questionnaire.

I would like to take notes of our conversation.

Rules for this conversation:

All information, including the title of the company and the names of the persons interviewed or discussed will be kept anonymous; If you are not willing to answer to any of the questions, please, just indicate it, we can move to the next question.

This is a semi-structured interview. Additional questions might arise during our conversation. The expected time for this interview is 15 minutes.

Interview Questions

1. You have mentioned your decision to go _____ to _____ as the most important foreign market entry decision of your firm, how much satisfied you are with that decision?

2. How much information related to that decision was collected and analyzed?

3. How long it took?

** How much time it took your firm (top management team) to make the most important entry decision (from starting of decision to final decision)?

4. Any other thing you would like to share about that decision?

Thank you very much for the time you dedicated me.