

TOP MANAGEMENT TEAMS AND INVESTMENT DECISIONS: A STUDY OF EXECUTIVE EXPERIENCE AND CULTURAL DIVERSITY

Jeff Bredthauer^{*}, Max Dolinsky^{**}, Brad Taylor^{***}

^{*} University of Nebraska Omaha, Omaha, the USA

^{**} Corresponding author, University of Delaware, Newark, the USA

Contact details: University of Delaware, 306 Purnell Hall, Newark, DE 19716, USA

^{***} Central Michigan University, Mount Pleasant, MI, the USA



Abstract

How to cite this paper: Bredthauer, J., Dolinsky, M., & Taylor, B. (2020). Top management teams and investment decisions: A study of executive experience and cultural diversity. *Corporate Ownership & Control*, 17(4), 200-213.
<http://doi.org/10.22495/cocv17i4art16>

Copyright © 2020 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).
<https://creativecommons.org/licenses/by/4.0/>

ISSN Online: 1810-3057

ISSN Print: 1727-9232

Received: 22.04.2020

Accepted: 01.07.2020

JEL Classification: G3, M12, M14, F23

DOI: 10.22495/cocv17i4art16

We employ an empirical study of mining companies in Sub-Saharan Africa (SSA) using the upper echelons theory (UET) to explore how the top management team (TMT) perceptions and experiences influence investment decisions. UET is used as it is consistent with the Uppsala internationalization model, which best fits mining companies. We assess past international experiences, nationality diversity, age, and education levels of the TMT in order to determine if these demographics impact the decision to invest in SSA countries. This study also assists in closing the gaps in the literature on how executive experiences impact the investment decision process in an international setting as well as how the cultural composition of the TMT influences corporate decisions.

Keywords: Cultural Diversity, Internationalization, Top Management Team (TMT), Upper Echelons Theory (UET)

Authors' individual contribution: Conceptualization - B.T.; Methodology - B.T.; Formal Analysis - B.T.; Writing-Original Draft - B.T.; Writing - Review & Editing - J.B. and M.D.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

Acknowledgments: The authors are grateful for comments on an earlier version of this paper offered by Jiri Tressl, and for the helpful suggestions from the editor and reviewers. They are also grateful for summer research support by Central Michigan University in partial funding of Max Dolinsky's research reported here.

1. INTRODUCTION

Hambrick and Mason (1984) introduced the upper echelons theory (UET) to assist in understanding how top management teams (TMT) make decisions. UET provides that organizational outcomes are a reflection of the values and cognitive biases of senior management in the organization. The theory further states that the TMT perception of their corporate environment influences the strategic choices they make.

In the last five decades, multinational corporations (MNCs) have had to adapt to globalization and the increasing complexity that follows (Hitt, Li, & Xu, 2016; Tian & Slocum, 2015). This increasingly global landscape leads to ensuing pressures on top management to internationalize their firms, which puts an emphasis on selecting and retaining decision-makers with international experience (Nielsen & Nielsen, 2011). However, within the literature, there has been a void in the exploration of the relationships between executive

experiences and strategic choices in the international business arena. In particular, Child, Hsieh, Elbanna, Karmowska, Marinova, Puthusserry, Tsai, Narooz, and Zhang (2017) confirm this dearth of research investigating small to mid-size enterprises. Furthermore, there is a shortage of research investigating the effects of TMT nationality diversity on international strategic decision making (Nielsen & Nielsen, 2011).

Our main contribution is creating a framework for understanding how the experience and background of a top management team factors into the decision-making process to invest internationally. Observing the period from 2013-2015, this study assists in closing the gaps in research by expanding insight into how executive experiences impact decisions to make investments in an international setting as well as how the cultural composition of the TMT influences decisions in such a setting. Although prior literature recognizes the characteristic properties of executive managers, to our knowledge, no research has measured the statistical significance of these characteristics nor have there been any studies of Sub-Saharan Africa mining companies. Thus, we extend the theory in three ways. First, while there have been many studies on the importance of the firm-level experience of top management (Nielsen, 2010) and managers' country familiarity (Clark, Li, & Shepherd, 2018), other facets have yet to be explored such as the effects of expertise and managerial knowledge at the top levels of management (Hambrick & Mason, 1984). Second, we extend the theory by demonstrating the nature of interdependencies of TMT in an international setting, a theory-driven relationship of UET to TMT. Finally, we interweave our findings with the literature to extend knowledge of TMT in the context of UET.

Overall, the theme of this study is driven by the void in the literature and by the need for variation in selecting variables of interest. Hence, we investigate the relationships between international diversification and TMT characteristics as follows: 1) age, 2) international experience, 3) national diversity, 4) education. This builds on the trending research area of corporate leadership gender and cultural diversity (Kostyuk, Mozghovyi, & Govorun, 2018) and augments other factors explored in prior studies. Unfortunately, the mining industry in Sub-Saharan Africa lacks gender diversity and we are therefore unable to include this variable in our analysis. However, in the study most germane to the Sub-Saharan mining industry, Ramón-Llorens, García-Meca, and Duréndez (2017) determine that CEO gender does not significantly predict a firm's propensity to export.

The paper is organized as follows. In the next section, we provide the background and literature review surrounding TMT and its propensity to internationalize their firms. In Section 3, we develop the theory and summarize prior relevant findings. In Section 4, we develop four main hypotheses for the association between TMT characteristics and firm internationalization. In Section 5, we present our models and discuss the data and proxies used for TMT characteristics. In Section 6, we discuss our results. In the final section, we conclude by discussing our contributions as well as limitations and future lines of research.

2. BACKGROUND AND LITERATURE REVIEW

Hambrick and Mason (1984) were the first to consider the relationships between top managers' characteristics, firm performance, and growth. They developed a new concept entitled upper echelons theory (UET). UET presents a sequential framework where one event triggers another. UET provides that senior managers' backgrounds and functional characteristics define their tendencies towards certain strategic choices (Carpenter, 2002; Hambrick, Cho, & Chen, 1996). For example, as situational opportunities arise in organizations, managers' backgrounds and characteristics impact their decisions and therefore affect performance (Hambrick & Mason, 1984). In practice, top managers are often selected for their positions because they possess demographic or social attributes lacking in the organization (Bany-Arifin, McGowan, Tunde, & Shahnaz, 2014).

Since there was a high degree of homogeneity among top management backgrounds, there was scant literature on UET until the early 1980s. Senior managers generally came from the upper class and attended the same prestigious universities. Demographically, the managers were more likely to be white males (Newcomer, 1955; Sturdivant & Adler, 1976). However, the twenty-first century has ushered in significant societal changes to life and business. Due to social influences and legislation, there has been an increase in the proportion of successful senior female executives in the corporate world (Bany-Arifin et al., 2014). Moreover, Al-Maghzom, Hussainey, and Aly (2016) demonstrated that an increased presence of females on board in Saudi Arabia is positively related to firm risk disclosure, which relates to firm performance metrics.

Hambrick and Mason (1984) find that differences in managers' functional experiences affect their approaches, attitudes, and views. They suggest that demography is the underlying observable factor explaining the differences in the unobservable traits - values, norms, and principles among managers. Consequently, researchers have hypothesized that attributes such as age, gender, and country of origin equate to these unobservable characteristics.

Summarizing the upper echelon concept, Carpenter, Geletkanycz, and Sanders (2004) define a coherent progression of the theory. They state that strategic choices are a direct result of managers' cognitive biases and values, which are related to managers' observable attributes (i.e., education, age, etc.), and thus organizational performance can be a function of executives' observable characteristics. Hambrick (2007) advances UET by examining new concepts and concluding that UET predicts organizational outcomes in direct proportion to managerial discretion (Hambrick, 2007). Higher discretion leads to a more direct reflection of managerial characteristics on a company's strategy and performance. Their work further suggests that assignment challenges, performance responsibilities, and executive aspirations shape managerial backgrounds and dispositions.

Considerable research has examined the original UET with multiple studies exploring the relationship between CEO and TMT characteristics that led the latter to engage in internationalization

(Alayo, Maseda, Iturralde, & Arzubiaga, 2019; Gupta, Smith, & Shalley, 2006; Ren, 2016; Smith, Smith, Olian, Sims, O'Bannon, & Scully, 1994). Ren (2016) found that CEO tenure in Chinese non-state-owned mining enterprises increases internalization but finds mixed results for state-owned enterprises. Alayo et al. (2019), on the other hand, find that a higher concentration of family members in TMT hinders internalization in Spanish family enterprises. Buyl, Boone, Hendriks, and Matthyssens (2011) and Alexiev, Jansen, Van den Bosch, and Volberda (2010) considered the role of CEO characteristics in assimilating the TMT and reconciling interests among team members. They demonstrated that both TMT and CEO characteristics influence the decision-making process but with varying degrees of influence. The reason for the difference is that moderators limit the degree of influence; there are additional internal and external factors, such as company size (Kets de Vries & Miller, 1986), corporate governance type (Lioukas, Bourantas, & Papadakis, 1993) and the nature of decisions (Dean & Sharfman, 1993).

A study that examines a group of relevant executive attributes (Carpenter, Geletkanycz, & Sanders, 2004; Kor, 2003) and their cumulative effects on the team may help advance the current understanding of what contributes to developing international capability at the upper echelons level of companies. A multi-level study by Athanassiou and Roth (2006) concludes that individual managerial international attributes, combined with the MNCs top management team's international attributes, have a combined effect on a manager's disposition in providing international business advice to the team. Similarly, an investigation of the combined effects of individual managers' international profiles and TMT international orientation may help advance our current understanding of the executive effects on firm internationalization (Nielsen, 2010).

Papadakis and Barwise (2002) review strategic decisions and the role that CEO and TMT characteristics play in making those decisions, finding that CEO characteristics are significantly correlated with the characteristics of all other TMT members. They find that an executive director's transformative leadership increases the effectiveness of senior team attributes in versatile organizations. Cao, Gedajlovic, and Zhang (2009) find it necessary to disaggregate the impact of the CEO and TMT on organizational versatility. As CEOs serve as monitors for incoming information to the organization, they have enhanced power in creating adaptable organizations. Nevertheless, the authors conclude that CEOs alone are not able to appraise all information and arrive at the best solutions independently; thus, it is important to examine TMT influence as well.

3. THEORY DEVELOPMENT

3.1. Uppsala internationalization process model and upper echelons theory

The business environment has changed substantially in the past few decades. Market liberalization and economic and industry globalization have motivated many firms to go abroad and invest. Firms are using

an international diversification strategy by pursuing business and investment opportunities overseas.

While expanding operations internationally, firms face significant challenges related to a lack of knowledge about local systems, such as political, legal, and tax systems. The Uppsala internationalization process model argues that firms initially tend to expand into markets that are geographically and culturally in close proximity; however, once firms gain experience in international operations, they branch out further (Johanson & Vahlne, 1977; Johanson & Wiederheim-Paul, 1975). Hence, the model considers experiential learning as a primary source of knowledge and expertise to deal with the uncertainty of entering new international markets (Eriksson, Johanson, Maikgard, & Sharma, 1997). Based on the behavioral theory of the firm (Cyert & March, 1963) and the growth theory of the firm (Penrose, 1959), the Uppsala model emphasizes the rationality of managerial choices and the uncertainty under which those choices are made.

Similarly, building on the behavioral view of the firm (Cyert & March, 1963; March & Simon, 1958) and strategic choice theory (Child, 1974), UET suggests that top managers' human limitations such as interpretation bias, limited horizon, and selective discernment affect the strategic choices executives make (Finkelstein & Hambrick, 1996). Hence, under increasing environmental uncertainty (i.e., expanding internationally), organizational choices and behaviors are significantly affected by the characteristics and experiences of managers. Therefore, firm strategic choices and behaviors can be explained by the characteristics of the TMT (Child, 1974; Hambrick & Mason, 1984). Based on both the Uppsala Internationalization Process Model and UET, the international backgrounds and experiences of TMT members are expected to have a significant influence on firm decision making related to internationalization strategies and ultimately firm performance.

3.2. Internationalization of firms, the Uppsala internationalization process model, and upper echelons theory

The Uppsala internationalization process model by Johanson and Vahlne (1977) states that experiential knowledge is crucial to a company's expansion to other countries and also to the management of international operations. This model has two assumptions. First, experience in current operations and comprehension of foreign markets drive the change towards internationalization. Second, firms alter their business models and internationalize in order to strengthen their positions in foreign markets (Bany-Ariffin et al., 2014). Also, the updated model by Johanson and Vahlne (2009) notes the importance of insider affinity and understanding as necessary requirements for successful internationalization. This relationship can improve the internationalization process that comes with prior TMT experience (Bany-Ariffin et al., 2014).

Additional research on CEO and top management characteristics by Hambrick and Mason (1984) finds that TMT composition creates the basis for managerial decisions and therefore affects a firm's behavior on strategic decisions. This theory emphasizes a "dominant coalition" of the firm,

specifically of the TMT, based on their cognitive orientation, knowledge base, and values. In summary, the competition among companies to venture internationally has raised the bar for improving or equipping management team characteristics with skill sets to function more effectively under new and complex international business environments (Tihanyi, Ellstrand, Daily, & Dalton, 2000).

By internationalizing, multi-national companies (MNCs) may enjoy economies of scale (Gomes & Ramaswamy, 1999) and maximize profit by spreading fixed costs over a larger base of operations. Gomes and Ramaswamy find that MNCs gain greater flexibility and access to resources in host countries while also finding less expensive labor or technological advancements. MNCs can also obtain new learning opportunities to continuously improve their advantage over domestic competitors (Lu & Beamish, 2004).

Conversely, several studies examine the risks associated with internationalizing. Lu and Beamish (2004) argue that MNCs face unique challenges when establishing subsidiaries in foreign markets. They assert that any new subsidiary would incur higher costs because it may not transact its business activities as effectively or efficiently as a domestic firm. Although internationalization implies potential growth for MNCs, the lack of information about foreign markets creates uncertainty resulting in the possibility that MNCs could suffer higher costs.

3.3. Top management teams

There has been debate on how to define TMT. The term itself is based on the original work of Cyert and March (1963), who referred to it in their “dominant coalition theory.” Hambrick and Mason (1984), who use the “dominant coalition” as a central theme for TMT, stated that a UET perspective should be of interest because the top management team and its members provide a link between the firm and the environment.

Finkelstein and Hambrick (1996) introduced “supra TMT” as a concept to combine members of TMT and the board of directors into one unit. However, this concept was challenged both theoretically and empirically. Fama (1980) concludes that the board of directors and TMT are not the same as they each assume distinct roles in the firm. Jensen and Zajac (2004) emphasized that the “supra TMT” concept should be abandoned since there was conflicting evidence that TMT and the board of directors be distinguished as separate subgroups. This is particularly true of dual board systems that exist in some European countries such as Germany and Austria. In the case of dual boards, the supervisory board and the executive board are independent of one another (Government of Germany, 2019). Thus, TMT, as a unit of analysis, does not include the board of directors of the firm. Rather, in our conceptualization, the board of directors is a separate entity from TMT.

UET suggests that the composition of the TMT creates the basis for managerial decisions and, ultimately, the actions of the firm. Managers’ observable experiences are valid representations of their cognitive orientation, values, and knowledge and subsequently impact their strategic choices. The

psychological factors (i.e., beliefs, knowledge, assumptions, and values) are of primary significance to the UET. This theory emphasizes the “dominant coalition” of the organization, particularly at the top level of management.

3.4. Top management team characteristics and international diversification

Tihanyi et al. (2000) indicated that the dominant coalition studies focused on the organizational leadership of individuals (CEOs) to the entire team of top managers. However, organizational studies have placed more attention on observable demographic characteristics such as age, gender, tenure, and experience to predict or explain the relationship between demographic characteristics and an organization’s performance. According to Herrmann and Datta (2006), most UET studies have concentrated on CEO characteristics with an assumption that absolute decision-making power is vested in the CEO. However, it should be noted that in dual board regimes, such as in Germany, decisions are made by the supervisory board of which the CEO cannot be a member (Government of Germany, 2019).

As discussed earlier, the challenges associated with internationalization strategies are substantial. In order to cope with these demands, top managers need to have certain cognitive abilities, orientations, and competencies that are obtained through experience and education. The UET equates the top managers’ experiences and education with their cognitive ability and competencies. UET argues that experience, education, and the age of top managers, among other factors, influence their cognitive abilities and strategic decisions. UET sees top managers as powerful players that make effective strategic decisions that improve firm competitiveness and performance. Correspondingly, the internationalization process theory highlights the importance of the managers’ prior knowledge and experiences, which improves their networking experiences to better facilitate the firms’ international diversification strategies. The perspectives from the internationalization process theory provide a link to UET via managers’ abilities to make effective strategic decisions.

Top managers with more significant international experiences and higher education levels make more effective strategic decisions while minimizing risks than managers with limited experience and education, all while maintaining the company’s competitiveness. Thus, a company’s strategic decisions are significantly affected by the background characteristics and previous experiences of the executive managers (Child, 1974; Hambrick & Mason, 1984) and the CEOs (Ramón-Llorens, García-Meca, & Duréndez, 2017). Therefore, combining the insights from UET and the Uppsala internationalization process theory, current research attributes the background and experiences of TMT members to have a significant influence on a company’s strategic decisions relating to internationalization strategies.

Table 1 outlines the major studies conducted to date and the findings concerning TMT internationalization. The results are generally supportive of international experience having

positive effects on globalization and performance. Since Table 1 only provides a high-level overview and there is a complexity in defining internationalization and TMT characteristics, a

closer look is needed at studies with mixed results. In the next section, we develop hypotheses for the TMT characteristics that have sufficient variation in our sample.

Table 1. TMT internationalization – literature summary

<i>Study</i>	<i>Relationship Tested</i>	<i>Result</i>
Athanassiou and Nigh (1999)	MNCs international strategy and the density of the TMT's business advice network.	+
Athanassiou and Nigh (2000)	MNCs internationalization and international business behavior of TMT (the time spent by TMT member outside of home country).	+
Carpenter and Fredrickson (2001)	1. TMT education, international experience, tenure heterogeneity, and a firm's international exposure; 2. TMT functional heterogeneity and firm internationalization.	+ -
Carpenter, Pollock, and Leary (2003)	Technology-based IPO firms pursuing globalization strategies and the TMT members and directors possessing international experience.	+
Carpenter, Sanders, and Gregersen (2001)	The international assignment experience of the CEO of a U.S. multinational corporation and the corporation's performance.	+
Dahlin, Weingart, and Hinds (2005)	Three dimensions of information used: 1) range, 2) depth, 3) integration and national diversity.	Mixed
Daily, Certo, and Dalton (2000)	CEO international experience and their greater propensity to involve in international partnerships.	+
Reuber and Fischer (1997)	Top managers' international experience and their greater propensity to evolve into international partnerships.	+
Ruigrok, Peck, Greve, Tacheva and Hu (2006)	TMT internationalization in the European banking and insurance industry.	+
Sambharya (1996)	Foreign experience of the TMT and firm's international exposure.	+
Sanders and Carpenter (1998)	Internationalization, complexity, and governance (TMT compensation, the composition of the top management team, board structure).	+
Tihanyi, Ellstrand, Daily, and Dalton (2000)	1. TMT average tenure and its heterogeneity, education, international experience and a firm's global strategic posture (GSP); 2. TMT average age and firm's GSP.	+ -
Kaczmarek and Ruigrok (2013)	Internationalization and firm performance.	+
Tulung (2010)	TMT composition and company performance Indonesian mining firms.	-

4. HYPOTHESES DEVELOPMENT

4.1. TMT national diversity

Heterogeneity may bring different outcomes to organizational processes. In the study of organization theory, diversity is examined from the demographic, structural, and cognitive perspective (Glick, Miller, & Huber, 1993); all three dimensions are closely interrelated. The primary view is that demographic diversity leads to cognitive diversity, which reflects in organizational performance (McCain, O'Reilly, & Pfeffer, 1983).

Researchers have varying conclusions testing this implication. TMT heterogeneity can produce different results as research has found positive effects (Eisenhardt & Martin, 2000), negative effects (Murray, 1989; Uman, 2013), and no effects (Michel & Hambrick, 1992). According to Lubatkin, Simsek, Ling, and Veiga (2006), TMT heterogeneity assists in the reconciliation between different demands for resources that result in achieving managerial versatility. Demographic homogeneity results in communal values and beliefs, and thus in greater organizational integration (Glick, Miller, & Huber, 1993). Meanwhile, Uman (2013) finds that TMT cultural diversity has a negative influence on firm performance due to its lower level of ambidextrous orientation. However, inordinate homogeneity can create an inverse effect and results in excessive concurrence and paralysis in the organizational decision-making process.

TMT heterogeneity allows firms the ability to engage in numerous diverse activities and examine problems and tasks from alternate perspectives, thus developing a broader vision. Kwee, Van Den

Bosch, and Volberda (2011) conclude that the executive team needs to be heterogeneous to provide the organization with "a thought man, an action man, a people man, and a frontman". The different backgrounds and experiences enhance the TMT ability to conduct strategic planning (Kwee, Van Den Bosch, & Volberda, 2011).

However, while TMT heterogeneity may result in an expansive view and a clearer understanding of events as they arise (Carpenter, 2002), it can also slow the reaction to variable conditions (Hambrick, Cho, & Chen, 1996) and create conflict (Amason & Sapienza, 1997). Homogeneity, in contrast, generally constrains the decision-making process while hindering the evaluation of alternatives but benefits the organization in the handling of everyday problems in a stable environment (Fillee & Aldag, 1978).

Therefore, team heterogeneity is more oriented to rapid environmental changes, while homogeneity is more efficient under stable conditions. Ferrier's (2001) research demonstrates that the greater the diversity in the TMT, the greater its ability to counter competitors' actions. However, responding to competitors' actions may become difficult if the TMT does not share similar views; inter-team coordination then becomes more complicated and the exchange of information can be hindered.

The literature supports the idea that increased internationalization by MNCs can lead to improved international cognitive capacity of TMT. Kobrin (1994) finds that a geocentric mindset index of senior corporate human resource managers is associated with a firm's operations and international human resource management policy having a geographic scope. Finally, Greve, Nielsen, and Ruigrok (2009) stated that changes in geographical

and cultural positions by financial companies is positively related to the level of both TMT nationality and international experience diversity, which is consistent with the findings reported by Heijltje, Olie, and Glunk (2003) and Van Veen and Marsman (2008). Moreover, Luo (2005) concludes that increased nationality diversity of the TMT and board of directors further assists in the development of firm-level experiences as suggested by the Uppsala internationalization process model (Johanson & Valhne, 1977).

Introducing foreign executives to the TMT ranks of an MNC is also in accordance with the argument of 'matching managers to strategy' (Gupta & Govindarajan, 1984; Szilagyi & Schweiger, 1984). The internationalization strategy requires the completion of important managerial activities, such as keeping informed of the complex international environment, coping with uncertainty and change, and maintaining contacts with several external parties in foreign locations. TMT foreign nationals, who have typically spent their developmental years in a country other than that of the MNC country, improve and align the cognitive map of TMT members with a geographic map of the MNCs international operations. Therefore, TMT foreign nationals increase the likelihood that the TMT will match the significant job requirements arising from entering into complex foreign markets. This study proposes that the level of TMT nationality diversity will be positively related to increases in a firm's internationalization posture. Based on the above, the following is proposed:

Hypothesis 1 (H1): There is a positive association between firm internationalization and TMT nationality diversity.

4.2. New entries and exits

Wiersema and Bantel (1992) suggest that, based on prior research, younger managers tend to have more strategic change performance than older managers do. Per Bantel and Jackson (1989), older executives are typically more risk-averse. This is likely due to the career stage factor where financial security is necessary and risk-taking behavior can become a career hazard (Wiersema & Bantel, 1992). According to Tihanyi et al. (2000), a strategic change initiative is more appealing to younger and generally more energetic managers who are willing to partake in risk-taking behavior.

Generally, a managers' age will affect his or her decisions (Wiersema & Bantel, 1992) and in particular, the manner in which decisions are made and the quality of those decisions (Kirchner, 1958). Wiersema and Bantel (1992) note that elasticity decreases as age increases, while reluctance to change and unwillingness to take risks significantly increases with age. As mentioned by Hambrick and Mason (1984), older executives tend to favor the status quo. They also note that younger managers are more disposed toward "attempting the novel, the unprecedented, taking a risk," which comes with both costs and benefits. They state that top young managers are more adaptable to changes, have new ideas and approaches, and accordingly are less averse to taking risks. In contrast, older managers follow conventional rules, as their financial well-being and career security are typically a higher priority. Wiersema and Bantel (1992) agree; they

note that younger managers have a stronger inclination to pursue corporate changes, while older managers are hesitant to change the existing paradigm as they prefer to maintain a system of routines where there is greater security (Carlsson & Karlsson, 1970; Child, 1974).

The updated Uppsala internationalization process model suggests that the level of international diversification within a company is positively related to the knowledge and experience of its managers. While experience and knowledge are normally associated with older executives, older executives are typically more risk-averse and hesitant to change, as noted above.

When a firm internationalizes, it must understand how to operate in new environmental and cultural settings. Each newly formed subsidiary requires a firm and its managers to be confronted with new customers, competitors, and other experiences (Barkema & Vermeulen, 1998). Managers are simultaneously required to transform their native mental maps and consequently, the structures, systems, and processes contained in those maps to fit a new international situation (Nohria & Ghoshal, 1994). Younger managers are at an advantage here given their increased adaptability and ambition.

With this information, this study proposes the following hypothesis:

Hypothesis 2 (H2): The average age for a TMT member is negatively associated with the level of international diversification.

4.3. TMT international experience

Black, Gregersen, and Mendenhall (1992) find that international assignments are a key to a firm's global competitiveness and serve three strategic functions: 1) succession planning and management development, 2) coordination and control of international operations, and 3) information flow and exchange between parent and affiliates and among affiliates. Expatriation provides managers with direct awareness of opportunities in international markets and helps executives reduce the apprehension and complexities associated with operating under uncertain conditions (Sambharya, 1996). Also, expatriates may make contacts that are useful in expediting international undertakings.

Adler and Bartholomew (1992) suggested that the development of managers' cross-cultural skills (e.g., understanding business, political, and cultural environments and adjusting to different cultures) is necessary for leaders to become successful in an international environment. The association between TMT international experience and international diversification is further supported by the work of Sullivan (1994), Sambharya (1996), and Tihanyi et al. (2000). Additionally, Carpenter and Fredrickson (2001) suggest that the foreign experience of TMT members is positively correlated with their company's international exposure. Although, as Andersen and Lueg (2017) point out, researchers have to be careful studying culture since it can mean different things, yet most research limit the scope to national culture.

TMT with international experience is an important source of knowledge and expertise regarding international markets and the conduction of business overseas. Also, TMT with international

backgrounds and orientations are more likely to have extensive international networks that assist in assessing foreign environments and gathering information relevant to future internationalization activities. Prior knowledge, expertise, and network contacts represent an essential resource for strategic decision-making related to internationalization since such decisions are highly complex, require cultural and strategic knowledge, and demand a careful examination of many different alternatives.

TMT with international experience may provide companies with important information about international markets and the capacity to process that information. First, diverse TMT is more apt to identify potential opportunities for foreign expansion through international assessment and careful evaluation of different alternatives. Through their international network contacts and understanding of the international business environment, these managers may be attentive to international investment opportunities and foreign market developments. Such information, in turn, acts as a valuable resource in international strategic decision-making (Cyert & March, 1963). Second, TMT internationalization may assist decision-makers by reducing the complexity of available information (Hambrick & Mason, 1984). As such, to be more effective, TMT with international experience may consider past experiences, and an expansive knowledge base, to undertake complex strategic decisions pertaining to internationalization.

Additionally, executives' strategic orientation is likely to impact their preferences for strategic actions (Finkelstein, Hambrick, & Cannella, 2008; Geletkanycz, 1997). Internationalized TMT is likely to look favorably upon internationalization, as they perceive foreign expansion as being less risky compared to executives without similar backgrounds and experiences (Herrmann & Datta, 2006). Internationalized TMT is also better prepared to handle environmental risks associated with expansion (e.g., supply chain, transport risk), which are becoming of greater concern for firms (Braendle, Mozghovyi, & Huryna, 2017). Hence, internationalized TMT are more likely to engage in greater internationalization, and we hypothesize the following:

Hypothesis 3 (H3): The international experience of TMT members is positively associated with international diversification.

4.4. TMT education

The educational level of managers has been linked with their cognitive orientation and knowledgebase (Herrmann & Datta, 2005). Managers with more education are expected to have a greater tolerance for uncertainty, which is essential in seeking and evaluating different options for new opportunities. For instance, Datta and Rajagopalan (1998) and Wiersema and Bantel (1992) have linked educational background with greater innovation, knowledge, skills, and openness to change. Grimm and Smith (1991) find that TMT members that employed strategic changes were more likely to hold a Master of Business Administration (MBA) degree. Therefore, managers' socio-cognitive abilities and levels of education seem to play an important role in internationalization success (Herrmann & Datta, 2005).

However, the opinions on the importance of educational background are divergent. Herrmann and Datta (2005) argue that a high level of education is sometimes detrimental to decision-making due to excessive analysis. Furthermore, Balta, Woods, and Dickson (2012) did not find that the education of executives has an effect on firms' innovation, and Gottesman and Morey (2010) concluded that there is no relationship between educational background and firm performance. Gottesman and Morey (2010) suggest that managers with a Master of Science, MBA, or several other degrees have no better performance than executives without a graduate degree. These negative findings contrast with the research of other groups who consider the level of education as a significant determinant (Dollinger, 1984). Specifically, Goll and Rasheed (2005) find that better-educated managers work with a broader scope, and Bantel and Jackson (1989) suggest that they are more likely to engage in innovational processes.

Researchers have also suggested that those with higher levels of education are able to process more information in less time. Wiersema and Bantel (1992) conclude that increased education is associated with managers who are more willing to alter corporate strategy and are more flexible. Generally, executives who hold advanced degrees have broader perspectives on worldwide current events and are able to manage greater amounts of information, better deal with uncertainty, and bear more risks (Dollinger, 1984). Additionally, CEOs with advanced degrees are likely to be more disciplined (Goll & Rasheed, 2005).

Executives with more education may be better at conducting more in-depth analysis and possess improved information processing capabilities, characteristics that are important for managing a company engaged in internationalization. Different countries have unique attributes in terms of their cultural and institutional characteristics. When firms seek to internationalize, their managers must understand the complexities of new international situations. Hence, the socio-cognitive capacities of executives, particularly open-mindedness, superior information processing capability, and flexibility, are likely to play an important role in ensuring success in the international context (Herrmann & Datta, 2006).

Ultimately, managers with advanced degrees are likely more adept at handling complex problems and dealing more effectively with conflict. Hence, with respect to the link between educational level and socio-cognitive capacities, we hypothesize the following:

Hypothesis 4 (H4): Firm internationalization is positively associated with the level of education of TMT members.

5. RESEARCH METHODOLOGY

In this section, we present our models and discuss the sample size and variables used as proxies for TMT characteristics.

The target sample consists of nineteen mining MNCs listed by the United Nations Conference on Trade and Development (UNCTAD, 2012) as the largest mining companies in the world (see Table 2). It is clear that the top twenty mining companies are

international, at least measured by UNCTAD's transnational index and its network spread index as per Table 2. The original UNCTAD study reflected the 20 top mining companies; however, Anglo American plc has since acquired De Beers plc

Therefore, the study will examine the remaining 19 largest mining companies. Most of the largest mining companies have extensive interests in Sub-Saharan Africa.

Table 2. Transnationality index of the world's 20 largest mining companies (2013-2015)

<i>Mining company</i>	<i>Number of home country operations</i>	<i>Number of foreign operations</i>	<i>Number of countries operating</i>	<i>Transnationality index</i>	<i>Network spread index</i>
Glencore Xstrata	0	92	14	100%	100%
Rio Tinto	30	75	22	71%	35%
Newmont	2	14	8	88%	21%
Barrick Gold	8	20	8	71%	13%
Vale	20	18	13	47%	12%
AngloGold Ashanti	8	13	9	62%	12%
Anglo American	40	40	11	50%	11%
BHP Bilton	27	33	9	55%	10%
Norilsk Nickel	11	9	5	45%	5%
Freeport McMoran	7	5	4	42%	3%
Goldfields	4	5	3	56%	3%
Teck Cominco	8	8	3	50%	3%
Antofagusta Minerals	3	3	3	50%	3%
Africa Rainbow Minerals	11	6	3	35%	2%
Grupo Mexico	3	2	1	40%	1%
Impala Platinum	5	2	1	29%	1%
Harmony Gold	12	3	1	20%	1%
KGHM Polisk	3	0	0	0%	0%
Lonmin	3	0	0	0%	0%

5.1. Data sources

This study uses secondary data gathered from 2013-2015 annual reports of the MNCs. Meanwhile, demographic data such as age, international experience, education, and nationality were manually extracted solely via content analysis of TMT biographic information from firms' annual reports. In total, we examine biographical data for 165 individuals.

TMT age was computed as the average age of executives of the TMT, as in Hermann and Datta (2005). Biographical information in the annual reports was inspected to determine the age of all members of the TMT. Next, data on the age of the TMT members was aggregated to determine the average age at the firm-level.

Datta and Rajagopalan (1998) adopted a seven-point scale on the highest degree earned to define education level: (1 = high school, 2 = some college, 3 = undergraduate degree, 4 = some graduate school, 5 = master's degree, 6 = attended doctoral program, and 7 = doctorate), while Wally and Becerra (2001) adopted a three-point scale as follows: 1 = bachelor degree or less, 2 = master's degree, and 3 = PhD. In this study, the scale of Datta and Rajagopalan (1998) was modified to a five-point scale: (1 = diploma and lower, 2 = bachelor's degree, 3 = professional qualification, 4 = master's degree and 5 = doctorate). The five-point scale was created as a compromise between the two since 1) the existing three-point scale does not provide enough information, and narrowing the scale, in our opinion, could produce misleading results and 2) in our data, all 165 TMT members had at least a bachelor's degree and thus the two lower points of the seven-point scale (1 = high school and 2 = some college) were not applicable. In this way, each individual member was assigned a score, and the TMT educational level was calculated by averaging the individual scores of its respective members.

Individual TMT member-level data was aggregated in the following manner: age and educational level data averages were calculated to determine firm-level averages, respectively. Meanwhile, percentages were computed based on individually coded international experiences. That is, based upon their biographical data, TMT members that had gained international experience were assigned a one, while TMT members that had no international experience were assigned a zero.

Internationalization was measured based on the average of the network spread index and the transnationality index as computed by UNCTAD (2012). The network spread index seeks to capture both the number of foreign affiliates and the number of host countries in which a company has established its affiliates. The transnationality index is a composite of three ratios: foreign sales to total sales, foreign assets to total assets, and foreign employment to total employment. These measures were used as they are well established in the literature and are accepted as measures of internationalization by bodies such as the United Nations (UNCTAD, 2012).

For the first hypothesis, TMT nationality diversity represents the dependent variable. This study delimits the TMT as the core executive committee comprising the top-tier of executives only (Certo, Lester, Dalton, & Dalton, 2006). Managers' nationality was determined by passports held as reported by companies in their annual reports or on the investor relations pages of the company's website. Following the standard for capturing diversity as variety based on a particular characteristic, a Blau index (Blau, 1977; Harrison & Klein, 2007; Nielsen, 2010) was used to measure TMT nationality diversity: where π signifies the fraction of TMT members representing a single nationality. As a result, the more nations represented on the TMT, the closer the index is to 1. The Blau index of zero indicates all members of the

TMT have the same nationality, whereas the Blau index of 1 indicates that all members of the TMT have different nationalities.

6. RESULTS

Table 3 summarizes the statistics of 165 TMT members from the 19 largest mining companies in the world. The average education level for the TMT

members was 3.32. As previously defined, this means that the average TMT member achieved at least a professional designation with a substantial number of TMT members achieving a master's level education. The average age of the TMT members was 51 with the youngest being 31 and the oldest 66. Over two-thirds of the TMT members were between the ages of 44 and 58. Sixty-nine percent of the TMT members had some international experience.

Table 3. Summary statistics

Company	Transnation.	Network	Intern.	Heterog.	Exp.	Age	Educ.
Glencore Xstrata	100%	100%	100%	0.72	1.00	62	3.67
Rio Tinto	71%	35%	53%	0.70	1.00	52.2	3.70
Newmont	88%	21%	55%	0.20	0.67	48.4	3.56
Barrick Gold	71%	13%	42%	0.74	0.78	52	3.89
Vale	47%	12%	30%	0.41	1.00	53.8	3.38
Anglo Gold Ashanti	62%	12%	37%	0.52	0.78	49.3	3.67
Anglo American	50%	11%	31%	0.68	0.83	54	3.08
BHP Bilton	55%	10%	32%	0.42	1.00	48.9	3.36
Norilsk Nickel	45%	5%	25%	0	0.38	50.9	3.31
Freeport McMoran	42%	3%	23%	0	0.75	55.5	3.50
Goldfields	56%	3%	30%	0.59	0.77	45.8	3.08
Teck Cominco	50%	3%	27%	0.15	0.50	52.2	2.92
Antofagusta Minerals	50%	3%	27%	0	1.00	49.1	2.88
Grupo Mexico	40%	2%	19%	0	0.8	58	2.80
Africa Rainbow Minerals	35%	1%	20%	0	0.00	52.3	3.25
Impala Platinum	29%	1%	15%	0.18	0.60	47	3.20
Harmony Gold	20%	1%	10%	0	0.20	47.7	3.00
KGHM Polisk	0%	0%	0%	0	1.00	55	4.2
Lonmin	0%	0%	0%	0.24	0.14	47.1	3.00
Mean	48%	12%	30%	0.29	69%	51.0	3.32
Standard deviation	0.25	0.23	0.22	0.29	0.32	6.5	0.92

6.1. Data analysis

To accommodate nonparametric distributions, we employ the Spearman rank correlation test, which is essentially the nonparametric version of the Pearson correlation coefficient test and provides a measure of the linear association between two variables. Spearman's rank correlation coefficient can be used to test for monotonic trends. Similar to Pearson, Spearman's is used to determine whether a value is significantly different from zero; the value ranges from -1 to 1, and an increasing trend is represented by a positive number while a decreasing trend is represented by a negative number (Hauke & Kossowski, 2011).

To summarize the hypotheses and the results:

H1: There is a positive association between firm internationalization and TMT nationality diversity.

Table 4 shows a strong positive monotonic correlation between firm internationalization and TMT national diversity ($p < .001$).

H2: The average age for a TMT member is negatively associated with the level of international

diversification.

Despite the high correlation (0.962) between TMT member age and international diversification, the relationship is not statistically significant ($p > .6953$) and does not support this hypothesis.

H3: The international experience of TMT members is positively associated with international diversification.

There is a high correlation (0.4532) between TMT membership and firm internationalization, and the results are statistically significant at the 10% level ($p = .0513$). Therefore, TMT membership seems to have an impact on firm internationalization.

H4: Firm internationalization is positively associated with the level of education of TMT members.

The results in Table 4 show support for this hypothesis with a moderate positive correlation between the two variables (0.4620), and the result is statistically significant at the 5% level ($p < .05$). Thus, TMT members with more education are positively correlated with greater firm internationalization.

Table 4. Hypotheses-testing correlation matrix

Hypothesis	Variable	By variable	Spearman p	Prob > p
H1	TMT diversity	Firm internationalization	0.7482	0.0002
H2	Firm internationalization	TMT age	0.9620	0.6953
H3	Firm internationalization	TMT international experience	0.4532	0.0513
H4	Firm internationalization	TMT level of education	0.4620	0.0464

6.2. Hypotheses analysis

With respect to the first hypothesis regarding TMT diversity and firm internationalization, the findings reflect that TMT diversity plays a significant role in firm internationalization. This finding is consistent

with studies performed on non-mining MNCs where internationalized TMT provided a firm-specific competitive advantage (Athanasios & Nigh, 1999, 2000). The lack of social categorization arising from nationality diversity does not impede access to broader information set by the TMT. TMT, as

functioning organizational units required to make complex links between different information sets, can examine information in greater depth or employ it in an integrated and coherent way (Dahlin, Weingart, & Hinds, 2005). This study corroborates these conclusions. Conversely, our empirical results differ from the findings of Wally and Becerra (2001), who found an international background is not significantly associated with international diversification.

Our results reveal no significant relationship between TMT average age and firm internationalization. This result is supported by Parfenyuk's (2013) study, which found no impact from age on firm internationalization but differs from the results of a number of other researchers. Perhaps, the experience and knowledge of older TMT members offset the presumed advantage in the alacrity and adaptability of younger individuals.

Unlike Wally and Becerra (2001), our results reveal a significant association between educational level and international diversification – a relationship that is also supported by the studies of Goll and Rasheed (2005) and Kearney, Feldman, and Scavo (2000). We suspect that executives with higher educational levels can engage in a more in-depth analysis of decision-making and thus possess enhanced information processing capabilities that are important in managing a firm that is engaged in internationalization.

7. CONCLUSION

7.1. Contributions

Given the persistent globalization trend by firms, there is a growing need to understand international business models (Hitt, Li, & Xu, 2016; Child et al., 2017). The mission of our study is to contribute to the literature explaining TMT characteristics that influence corporate decisions to internationalize their firms. After testing four hypotheses and discussing the results in the previous section and Table 4, we conclude that the internationalization process of firms appears to be enhanced by the national diversity, international experience, and educational level of its leadership.

With our results, we further the discussion by previous studies on these three key characteristics: 1) national diversity (Greve, Nielsen, & Ruigrok, 2009; Heijltje, Olie, & Glunk, 2003; Luo, 2005; Van Veen & Marsman, 2008); 2) international experience (Andersen & Lueg, 2017; Herrmann & Datta, 2006); and 3) educational level (Balta, Woods, & Dickson, 2012; Gottesman & Morey, 2010; Herrmann & Datta, 2005) among others. Therefore, firms seeking to internationalize may consider how they staff their TMTs to accomplish this objective. The age of TMT members, on the other hand, does not appear to be a significant factor in the success of the firm.

REFERENCES

1. Adler, N. J., & Bartholomew, S. (1992). Managing globally competent people. *Academy of Management Perspectives*, 6(3), 52-65. <https://doi.org/10.5465/ame.1992.4274189>
2. Alayo, M., Maseda, A., Iturralde, T., & Arzubiaga, U. (2019). Internationalization and entrepreneurial orientation of family SMEs: The influence of the family character. *International Business Review*, 28(1), 48-59. <https://doi.org/10.1016/j.ibusrev.2018.06.003>

On the other hand, this study has concluded that there is no significant relationship between TMT age and internationalization. Subsequently, this factor may not be as important in staffing as firms seek to internationalize.

7.2. Limitations and future research

Future research should explore the potential intervening mechanisms through which TMT composition influences firm-level performance (Lawrence, 1997; Priem, Lyon, & Dess, 1999). A more comprehensive dataset will allow for a multivariate analysis controlling for confounding variables. In other words, why are these factors important, and why is it that even culturally diverse groups frequently experience process issues before eventually realizing the benefits of diversity?

We suggest additional studies to determine the generalizability of the findings by our and prior studies. Specifically, the research presented here is representative of mining firms operating out of Sub-Saharan Africa, and it is possible that the demographics of TMTs have different effects depending on the industry or location of the firm. Unfortunately, we are unable to test the effects of some TMT characteristics due to the lack of variation in our sample, particularly TMT gender. While Ramón-Llorens, García-Meca, and Duréndez (2017) find that gender does not predict the propensity to export of the Spanish family-owned firms, it would be enlightening to test if their findings hold for other institutions in different countries.

Additionally, the TMT framework may be different for companies with dual board systems such as in Germany and Austria. Under a two-tier system, as opposed to a board of directors in a unitary system, the chairperson of the management board has the ability to make decisions more independently from the CEO. Given the different roles and responsibilities, the TMT framework needs to be understood and applied in different ways in dual board systems.

Previous research on group diversity also indicates that cultural diversity has some negative effects on group dynamics (Earley & Mosakowski, 2000; Watson, Kumar, & Michaelsen, 1993). However, these adverse effects could be diminished with the international experience of the TMT members. For instance, the extent to which top managers speak the language and comprehend the common beliefs and values of a foreign team member's culture can impact team interactions (Hambrick, Nadler, & Tushman, 1998). Future research may also consider other possible sources of executives' international orientation and experience such as international education (Kobrin, 1994), the languages that executives speak, and international network contacts (Athanasidou & Nigh, 2002).

3. Alexiev, A. S., Jansen, J. J. P., Van den Bosch, F. A. J., & Volberda, H. W. (2010). Top management team advice seeking and exploratory innovation: The moderating role of TMT heterogeneity. *Journal of Management Studies*, 47(7), 1343-1364. <https://doi.org/10.1111/j.1467-6486.2010.00919.x>
4. Al-Maghzom, A., Hussainey, K., & Aly, D. A. (2016). Corporate governance and risk disclosure: Evidence from Saudi Arabia. *Corporate Ownership and Control*, 13(2), 145-166. <https://doi.org/10.22495/cocv13i2p14>
5. Amason, A. C., & Sapienza, J. (1997). The effects of top management team size and interaction norms on cognitive and affective conflict. *Journal of Management*, 23(4), 495-516. <https://doi.org/10.1177/014920639702300401>
6. Andersen, C. V., & Lueg, R. (2017). Management control systems, culture and upper echelons - A systematic literature review on their interactions. *Corporate Ownership and Control*, 14(2), 312-325. <https://doi.org/10.22495/cocv14i2c2p5>
7. Athanassiou, N., & Nigh, D. (1999). The impact of U.S. company internationalization on top management team advice networks: A tacit knowledge perspective. *Strategic Management Journal*, 20(1), 83-92. [https://doi.org/10.1002/\(SICI\)1097-0266\(199901\)20:1%3C83::AID-SMJ10%3E3.0.CO;2-Y](https://doi.org/10.1002/(SICI)1097-0266(199901)20:1%3C83::AID-SMJ10%3E3.0.CO;2-Y)
8. Athanassiou, N., & Nigh, D. (2000). Internationalization, tacit knowledge, and the top management teams of MNCs. *Journal of International Business Studies*, 31(3), 471-87. <https://doi.org/10.1057/palgrave.jibs.8490917>
9. Athanassiou, N., & Nigh, D. (2002). The impact of the top management team's international business experience on the firm's internationalization: Social networks at work. *Management International Review*, 42(2), 157-181. Retrieved from <https://www.jstor.org/stable/40835916>
10. Athanassiou, N., & Roth, K. (2006). International experience heterogeneity effects on top management team advice networks: A hierarchical analysis. *Management International Review*, 46(6), 749-770. <https://doi.org/10.1007/s11575-006-0125-3>
11. Balta, M. E. B., Woods, A., & Dickson, K. (2012). The role environment and boards of directors' characteristics on innovation: An empirical evidence of Greek listed firms. *Corporate Ownership and Control*, 9(4), 429-440. <https://doi.org/10.22495/cocv9i4c4art6>
12. Bany-Arifin, A., McGowan, C. B., Tunde, M. B., & Shahnaz, A. S. (2014). Top management characteristics and firm's international diversification activities: Evidence from a developing nation. *Pertanika Journal Social Sciences & Humanities*, 22, 39-54. Retrieved from [http://www.pertanika.upm.edu.my/Pertanika%20PAPERS/JSSH%20Vol.%2022%20\(S\)%20Dec.%202014%20\(View%20Full%20Journal\).pdf](http://www.pertanika.upm.edu.my/Pertanika%20PAPERS/JSSH%20Vol.%2022%20(S)%20Dec.%202014%20(View%20Full%20Journal).pdf)
13. Bantel, K. A., & Jackson, S. E. (1989). Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal*, 10(S1), 107-124. <https://doi.org/10.1002/smj.4250100709>
14. Barkema, H. G., & Vermeulen, F. (1998). International expansion through start-up or acquisition: A learning perspective. *Academy of Management Journal*, 41(1), 7-26. <https://doi.org/10.5465/256894>
15. Black, S., Gregersen, H. B., & Mendenhall, M. E. (1992). *Global assignments: Successfully expatriating and repatriating international managers*. San Francisco, CA: Jossey-Bass.
16. Blau, P. M. (1977). *Inequality and heterogeneity: A primitive theory of social structure*. New York, NY: Free Press.
17. Braendle, U., Mozghovyi, Y., & Huryna, K. (2017). Corporate competitiveness and sustainability risks. *Risk Governance and Control: Financial Markets and Institutions*, 7(4-2), 225-233. <https://doi.org/10.22495/rgc7i4c2art5>
18. Buyl, T., Boone, C., Hendriks, W., & Matthyssens, P. (2011). Top management team functional diversity and firm performance: The moderating role of CEO characteristics. *Journal of Management Studies*, 48(1), 151-177. <https://doi.org/10.1111/j.1467-6486.2010.00932.x>
19. Cao, Q., Gedajlovic, E., & Zhang, H. (2009). Unpacking organizational ambidexterity: Dimensions, contingencies, and synergistic effects. *Organization Science*, 20(4), 781-796. <https://doi.org/10.1287/orsc.1090.0426>
20. Carlsson, G., & Karlsson, K. (1970). Age, cohorts and the generations of generations. *American Sociological Review*, 35(4), 710-718. <https://doi.org/10.2307/2093946>
21. Carpenter, M. A. (2002). The implications of strategy and social context for the relationship between top management team heterogeneity and firm performance. *Strategic Management Journal*, 23(3), 275-284. <https://doi.org/10.1002/smj.226>
22. Carpenter, M. A., & Fredrickson, J. W. (2001). Top management teams, global strategic posture and the moderating role of uncertainty. *Academy of Management Journal*, 44(3), 533-545. <https://doi.org/10.5465/3069368>
23. Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelon research revisited: Antecedents, elements and consequences of top management team composition. *Journal of Management*, 30(6), 749-778. <https://doi.org/10.1016/j.jm.2004.06.001>
24. Carpenter, M. A., Pollock, T. G., & Leary, M. M. (2003). Testing a model of reasoned risk-taking: Governance, the experience of principals and agents, and global strategy in high-technology IPO firms. *Strategic Management Journal*, 24(9), 803-820. <https://doi.org/10.1002/smj.338>
25. Carpenter, M. A., Sanders, W. G., & Gregersen, H. B. (2001). Bundling human capital with organizational context: The impact of international assignment experience on multinational firm performance and CEO pay. *Academy of Management Journal*, 44(3), 493-511. <https://doi.org/10.5465/3069366>
26. Certo, S. T., Lester, R. H., Dalton, C. M., & Dalton, D. R. (2006). Top management teams, strategy and financial performance: A meta-analytic examination. *Journal of Management Studies*, 43(4), 813-839. <https://doi.org/10.1111/j.1467-6486.2006.00612.x>
27. Child, J. (1974). Managerial and organizational factors associated with company performance. *Journal of Management Studies*, 11(3), 175-189. <https://doi.org/10.1111/j.1467-6486.1974.tb00693.x>
28. Child, J., Hsieh, L., Elbanna, S., Karmowska, J., Marinova, S., Puthusserry, P., Tsai, T., Narooz, R., & Zhang, Y. (2017). SME international business models: The role of context and experience. *Journal of World Business*, 52(5), 664-679. <https://doi.org/10.1016/j.jwb.2017.05.004>
29. Clark, D. R., Li, D., & Shepherd, D. A. (2018). Country familiarity in the initial stage of foreign market selection. *Journal of International Business Studies*, 49(4), 442-472. <https://doi.org/10.1057/s41267-017-0099-3>
30. Cyert, R. R., & March, J. G. (1963). *A behavioural theory of the firm*. Englewood Cliffs, New Jersey: Prentice-Hall.

31. Dahlin, K. B., Weingart, L. R., & Hinds, P. J. (2005). Team diversity and information use. *Academy of Management Journal*, 48(6), 1107-1123. <https://doi.org/10.5465/amj.2005.19573112>
32. Daily, C. M., Certo, S. T., & Dalton, D. R. (2000). International experience in the executive suite: The path to prosperity? *Strategic Management Journal*, 21(4), 515-523. [https://doi.org/10.1002/\(SICI\)1097-0266\(200004\)21:4%3C515::AID-SMJ92%3E3.0.CO;2-1](https://doi.org/10.1002/(SICI)1097-0266(200004)21:4%3C515::AID-SMJ92%3E3.0.CO;2-1)
33. Datta, D. K., & Rajagopalan, N. (1998). Industry structure and CEO characteristics: An empirical study of succession events. *Strategic Management Journal*, 19(9), 833-852. [https://doi.org/10.1002/\(SICI\)1097-0266\(199809\)19:9%3C833::AID-SMJ971%3E3.0.CO;2-V](https://doi.org/10.1002/(SICI)1097-0266(199809)19:9%3C833::AID-SMJ971%3E3.0.CO;2-V)
34. Dean, J. W., & Sharfman, M. P. (1993). Procedural rationality in the strategic decision making process. *Journal of Management Studies*, 30(4), 587-610. <https://doi.org/10.1111/j.1467-6486.1993.tb00317.x>
35. Dollinger, M. J. (1984). Environmental boundary spanning and information processing effects on organizational performance. *Academy of Management Journal*, 27(2), 351-368. <https://doi.org/10.5465/255929>
36. Earley, C. P., & Mosakowski, E. (2000). Creating hybrid team cultures: An empirical test of transnational team functioning. *Academy of Management Journal*, 43(1), 26-49. <https://doi.org/10.5465/1556384>
37. Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10-11), 1105-1121. [https://doi.org/10.1002/1097-0266\(200010/11\)21:10/11%3C1105::AID-SMJ133%3E3.0.CO;2-E](https://doi.org/10.1002/1097-0266(200010/11)21:10/11%3C1105::AID-SMJ133%3E3.0.CO;2-E)
38. Eriksson, K., Johanson, J., Maikgard, A., & Sharma, D. D. (1997). Experiential knowledge and cost in the internationalization process. *Journal of International Business Studies*, 28(2), 337-360. <https://doi.org/10.1057/palgrave.jibs.8490104>
39. Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, 88(2), 288-307. <https://doi.org/10.1086/260866>
40. Ferrier, W. J. (2001). Navigating the competitive landscape: The drivers and consequences of competitive aggressiveness. *Academy of Management Journal*, 44(4), 858-877. <https://doi.org/10.5465/3069419>
41. Filley, A. C., & Aldag, R. J. (1978). Characteristics and measurement of an organizational typology. *Academy of Management Journal*, 21(4), 578-591. <https://doi.org/10.5465/255701>
42. Finkelstein, S., & Hambrick, D. C. (1996). *Strategic leadership: Top executives and their effects on organizations*. St. Paul, Minneapolis: West Publishing Company.
43. Finkelstein, S., Hambrick, D. C., & Cannella, B. (2008). *Strategic leadership: Theory and research on executives, top management teams, and boards*. New York, NY: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195162073.001.0001>
44. Geletkanycz, M. A. (1997). The salience of 'culture consequences': The effects of cultural values on top executive commitment to the status quo. *Strategic Management Journal*, 18(1), 615-634. [https://doi.org/10.1002/\(SICI\)1097-0266\(199709\)18:8%3C615::AID-SMJ889%3E3.0.CO;2-I](https://doi.org/10.1002/(SICI)1097-0266(199709)18:8%3C615::AID-SMJ889%3E3.0.CO;2-I)
45. Glick, W., Miller, C., & Huber, G. P. (1993). The impact of upper-echelon diversity on organizational performance. In G. P. Huber, & W. H. Glick (Eds.), *Organizational change and redesign: Ideas and insights for improving performance* (pp. 176-214). Retrieved from https://www.researchgate.net/publication/281627061_The_Impact_of_Upper-echelon_Diversity_on_Organizational_Performance
46. Goll, I., & Rasheed, A. A. (2005). The relationships between top management demographic characteristics, rational decision making, environmental munificence, and firm performance. *Organization Studies*, 26(7), 999-1023. <https://doi.org/10.1177/0170840605053538>
47. Gomes, L., & Ramaswamy, K. (1999). An empirical examination of the firm of the relationship between multinationality and performance. *Journal of International Business Studies*, 30(1), 173-187. <https://doi.org/10.1057/palgrave.jibs.8490065>
48. Gottesman, A. A., & Morey, M. R. (2010). CEO educational background and firm financial performance. *Journal of Applied Finance (Formerly Financial Practice and Education)*, 20(2), 70-82. Retrieved from <https://ssrn.com/abstract=2693079>
49. Government of Germany. (2019). *German corporate governance code*. Retrieved from <https://www.dcgk.de/en/code.html>
50. Greve, P., Nielsen, S., & Ruigrok, W. (2009). Transcending borders with international top management teams: A study of European financial multinational corporations. *European Management Journal*, 27(3), 213-224. <https://doi.org/10.1016/j.emj.2008.10.001>
51. Grimm, C. M., & Smith, K. G. (1991). Research notes and communications management and organizational change: A note on the railroad industry. *Strategic Management Journal*, 12(7), 557-562. <https://doi.org/10.1002/smj.4250120708>
52. Gupta, A. K., & Govindarajan, V. (1984). Business unit strategy, managerial characteristics, and business unit effectiveness at strategy implementation. *Academy of Management Journal*, 27(1), 25-41. <https://doi.org/10.5465/255955>
53. Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The interplay between exploration and exploitation. *Academy of Management Journal*, 49(4), 844-863. <https://doi.org/10.5465/amj.2006.22083026>
54. Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32(2), 334-343. <https://doi.org/10.5465/amr.2007.24345254>
55. Hambrick, D. C., Cho, T. S., & Chen, M. (1996). The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly*, 41(4), 659-684. <https://doi.org/10.2307/2393871>
56. Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193-206. <https://doi.org/10.5465/amr.1984.4277628>
57. Hambrick, D. C., Nadler, D., & Tushman, M. (1998). *Navigating change: How CEO's, top teams, and boards steer transformation*. Boston: Harvard Business School Press.
58. Harrison, D. A., & Klein, K. J. (2007). What's the difference? Diversity constructs as separation, variety, or disparity in organizations. *Academy of Management Review*, 32(4), 1199-11228. <https://doi.org/10.5465/amr.2007.26586096>
59. Hauke, J., & Kossowski, T. (2011). Comparison of values of Pearson's and Spearman's correlation coefficients on the same sets of data. *Quaestiones Geographicae*, 30(2), 87-93. <https://doi.org/10.2478/v10117-011-0021-1>
60. Heijltjes, M., Olie, R., & Glunk, U. (2003). Internationalization of top management teams in Europe. *European Management Journal*, 21(1), 89-97. [https://doi.org/10.1016/S0263-2373\(02\)00156-1](https://doi.org/10.1016/S0263-2373(02)00156-1)

61. Herrmann, P., & Datta, D. K. (2005). Relationships between top management team characteristics and international diversification: An empirical investigation. *British Journal of Management*, 16(1), 69-78. <https://doi.org/10.1111/j.1467-8551.2005.00429.x>
62. Herrmann, P., & Datta, D. K. (2006). CEO experiences: Effects on the choice of FDI entry mode. *Journal of Management Studies*, 43(4), 755-778. <https://doi.org/10.1111/j.1467-6486.2006.00610.x>
63. Hitt, M. A., Li, D., & Xu, K. (2016). International strategy: From local to global and beyond. *Journal of World Business*, 51(1), 58-73. <https://doi.org/10.1016/j.jwb.2015.08.016>
64. Jensen, M., & Zajac, E. J. (2004). Corporate elites and corporate strategy: How demographic preferences and structural position shape the scope of the firm. *Strategic Management Journal*, 25(6), 215-235. <https://doi.org/10.1002/smj.393>
65. Johanson, J., & Vahlne, J.-E. (1977). The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23-32. <https://doi.org/10.1057/palgrave.jibs.8490676>
66. Johanson, J., & Vahlne, J.-E. (2009). The Uppsala internationalization model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9), 1411-1431. <https://doi.org/10.1057/jibs.2009.24>
67. Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization of the firm: Four Swedish cases. *Journal of Management Studies*, 12(3), 305-322. <https://doi.org/10.1111/j.1467-6486.1975.tb00514.x>
68. Kaczmarek, S., & Ruigrok, W. (2013). In at the deep end of firm internationalization. *Management International Review*, 53(4), 513-534. <https://doi.org/10.1007/s11575-012-0159-7>
69. Kearney, R. C., Feldman, B. M., & Scavo, C. P. F. (2000). Reinventing government: City manager attitudes and actions. *Public Administration Review*, 60(6), 535-548. <https://doi.org/10.1111/0033-3352.00116>
70. Kets de Vries, M. F., & Miller, D. (1986). Personality, culture, and organization. *Academy of Management Review*, 11(2), 266-279. <https://doi.org/10.5465/amr.1986.4282917>
71. Kirchner, W. K. (1958). Age differences in short-term retention of rapidly changing information. *Journal of Experimental Psychology*, 55(4), 352-358. <https://doi.org/10.1037/h0043688>
72. Kobrin, S. J. (1994). Is there a relationship between a geocentric mind-set and multinational strategy? *Journal of International Business Studies*, 25(3), 493-511. <https://doi.org/10.1057/palgrave.jibs.8490209>
73. Kor, Y. Y. (2003). Experience-based top management team competence and sustained growth. *Organization Science*, 14(6), 707-719. <https://doi.org/10.1287/orsc.14.6.707.24867>
74. Kostyuk, A., Mozghovyi, Y., & Govorun, D. (2018). Corporate governance, ownership and control: A review of recent scholarly research. *Corporate Board: Role, Duties and Composition*, 14(1), 50-56. <https://doi.org/10.22495/cbv14i1art4>
75. Kwee, Z., Van Den Bosch, F. A., & Volberda, H. W. (2011). The influence of top management team's corporate governance orientation on strategic renewal trajectories: A longitudinal analysis of Royal Dutch Shell plc, 1907-2004. *Journal of Management Studies*, 48(5), 984-1014. <https://doi.org/10.1111/j.1467-6486.2010.00961.x>
76. Lawrence, B. S. (1997). Perspective - The black box of organizational demography. *Organization Science*, 8(1), 1-22. <https://doi.org/10.1287/orsc.8.1.1>
77. Lioukas, S., Bourantas, D., & Papadakis, V. (1993). Managerial autonomy of state-owned enterprises: Determining factors. *Organization Science*, 4(4), 645-667. <https://doi.org/10.1287/orsc.4.4.645>
78. Lu, J. W., & Beamish, P. W. (2004). International diversification and performance: The S-curve hypothesis. *Academy of Management Journal*, 47(4), 598-609. <https://doi.org/10.5465/20159604>
79. Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to-medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of Management*, 32(5), 646-672. <https://doi.org/10.1177/0149206306290712>
80. Luo, Y. (2005). How does globalization affect corporate governance and accountability? A perspective from MNEs. *Journal of International Management*, 11(1), 19-41. <https://doi.org/10.1016/j.intman.2004.11.003>
81. March, J. G., & Simon, H. A. (1958). *Organizations*. New York, NY: Wiley.
82. McCain, B. E., O'Reilly, C., & Pfeffer, J. (1983). The effects of departmental demography on turnover: The case of a university. *Academy of Management Journal*, 26(4), 626-641. <https://doi.org/10.5465/255911>
83. Michel, J. G., & Hambrick, D. C. (1992). Diversification posture and top management team characteristics. *Academy of Management Journal*, 35(1), 9-37. <https://doi.org/10.5465/256471>
84. Murray, A. I. (1989). Top management group heterogeneity and firm performance. *Strategic Management Journal*, 10(S1), 125-141. <https://doi.org/10.1002/smj.4250100710>
85. Newcomer, M. (1955). *The big business executive: The factors that made him, 1900-1950*. New York, NY: Columbia University Press.
86. Nielsen, S. (2010). Top management team internationalization and firm performance: The mediating roles of foreign market entry. *Management International Review*, 50(2), 185-206. <https://doi.org/10.1007/s11575-010-0029-0>
87. Nielsen, B. B., & Nielsen, S. (2011). The role of top management team international orientation in international strategic decision-making: The choice of foreign entry mode. *Journal of World Business*, 46(2), 185-193. <https://doi.org/10.1016/j.jwb.2010.05.003>
88. Nohria, N., & Ghoshal, S. (1994). Differentiated fit and shared values: Alternatives for managing headquarters-subsidiary relationships. *Strategic Management Journal*, 15(6), 491-502. <https://doi.org/10.1002/smj.4250150606>
89. Papadakis, V. M., & Barwise, P. (2002). How much do CEOs and top managers matter in strategic decision-making? *British Journal of Management*, 13(1), 83-95. <https://doi.org/10.1111/1467-8551.00224>
90. Parfenyuk, O. (2013). *Modifying the upper-echelon theory towards organization ambidexterity. The role of TMT's characteristics in attaining ambidexterity within the organization* (Unpublished master's thesis). University of Amsterdam. Retrieved from <https://scripties.uba.uva.nl/search?id=451447>
91. Penrose, E. (1959). *The theory of growth of the firm*. New York, NY: Wiley.
92. Priem, R. L., Lyon, D. W., & Dess, G. G. (1999). Inherent limitations of demographic proxies in top management team heterogeneity research. *Journal of Management*, 25(6), 935-953. <https://doi.org/10.1177/014920639902500607>

93. Ramón-Llorens, M. C., García-Meca, E., & Duréndez, A. (2017). Influence of CEO characteristics in family firms internationalization. *International Business Review*, 26(4), 786-799. <https://doi.org/10.1016/j.ibusrev.2017.01.007>
94. Ren, M. (2016). How much do CEOs influence risk attitudes in a firm's internationalization? Exploring Chinese mining SOEs and NSOEs. *Corporate Ownership and Control*, 13(2), 23-30. <https://doi.org/10.22495/cocv13i2p2>
95. Reuber, A. R., & Fischer, E. (1997). The influence of the management team's international experience on the internationalization behaviors of SMEs. *Journal of International Business Studies*, 28(4), 807-825. <https://doi.org/10.1057/palgrave.jibs.8490120>
96. Ruigrok, W., Peck, S., Tacheva, S., Greve, P., & Hu, Y. (2006). The determinants and effects of board nomination committees. *Journal of Management & Governance*, 10(2), 119-148. <https://doi.org/10.1007/s10997-006-0001-3>
97. Sambharya, R. B. (1996). Foreign experience of top management teams and international diversification strategies of U.S. multinational corporations. *Strategic Management Journal*, 17(9), 739-746. [https://doi.org/10.1002/\(SICI\)1097-0266\(199611\)17:9%3C739::AID-SMJ846%3E3.0.CO;2-K](https://doi.org/10.1002/(SICI)1097-0266(199611)17:9%3C739::AID-SMJ846%3E3.0.CO;2-K)
98. Sanders, W. G., & Carpenter, M. A. (1998). Internationalization and firm governance: The roles of CEO compensation, top team composition, and board structure. *Academy of Management Journal*, 41(2), 158-178. <https://doi.org/10.5465/257100>
99. Smith, K. G., Smith, K. A., Olian, J. D., Sims Jr., H. P., O'Bannon, D. P., & Scully, J. A. (1994). Top management team demography and process: The role of social integration and communication. *Administrative Science Quarterly*, 39(3), 412-438. <https://doi.org/10.2307/2393297>
100. Sturdivant, F. D., & Adler, R. D. (1976). Executive origins: Still a gray flannel world? *Harvard Business Review*, 54(6), 125-132.
101. Sullivan, D. (1994). Measuring the degree of internationalization of a firm. *Journal of International Business Studies*, 25(2), 325-342. <https://doi.org/10.1057/palgrave.jibs.8490203>
102. Szilagyi, A. D., & Schweiger, D. M. (1984). Matching managers to strategies: A review and suggested framework. *Academy of Management Review*, 9(4), 626-637. <https://doi.org/10.5465/amr.1984.4277370>
103. Takeuchi, R., Tesluk, P. E., Yun, S., & Lepak, D. P. (2005). An integrative view of international experience. *Academy of Management Journal*, 48(1), 85-100. <https://doi.org/10.5465/amj.2005.15993143>
104. Taylor, R. N. (1975) Age and experience as determinants of managerial information processing and decision making performance. *Academy of Management Journal*, 18(1), 74-81. <https://doi.org/10.5465/255626>
105. Tian, X., & Slocum, J. W. (2015). The decline of global market leaders. *Journal of World Business*, 50(1), 15-25. <https://doi.org/10.1016/j.jwb.2014.01.003>
106. Tihanyi, L., Ellstrand, A. E., Daily, C. M., & Dalton, D. R. (2000). Composition of the top management team and firm international diversification. *Journal of Management*, 26(6), 1157-1177. <https://doi.org/10.1177/014920630002600605>
107. Tulung, J. E. (2010). Global determinants of entry mode choice. *Journal of Indonesian Economy and Business*, 25(2), 155-169. <https://doi.org/10.22146/jieb.6293>
108. Uman, T. (2013). Top management team's cultural diversity and firm performance: The mediating role of ambidextrous orientation. *Corporate Ownership & Control*, 11(1-10), 882-891. <https://doi.org/10.22495/cocv11i1c10p5>
109. United Nations Conference on Trade and Development (UNCTAD). (2012). *World investment report 2012: Towards a new generation of investment policies*. Retrieved from https://unctad.org/en/PublicationsLibrary/wir2012_embargoed_en.pdf
110. Van Veen, K., & Marsman, I. (2008). How international are executive boards of European MNCs? Nationality diversity in 15 European countries. *European Management Journal*, 26(3), 188-198. <https://doi.org/10.1016/j.emj.2007.12.001>
111. Vroom, V. H., & Pahl, B. (1971). Relationship between age and risk taking among managers. *Journal of Applied Psychology*, 55(5), 399-405. <https://content.apa.org/doi/10.1037/h0031776>
112. Wally, S., & Becerra, M. (2001). Top management team characteristics and strategic changes in international diversification: The case of U.S. multinationals in the European community. *Group & Organizational Management*, 26(2), 165-188. <https://doi.org/10.1177/1059601101262003>
113. Watson, W. E., Kumar, K., & Michaelsen, L. K. (1993). Cultural diversity's impact on interaction process and performance: Comparing homogeneous and diverse task groups. *Academy of Management Journal*, 36(3), 590-602. <https://doi.org/10.5465/256593>
114. Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, 35(1), 91-121. <https://doi.org/10.5465/256474>