

The impact of entrepreneurial orientation (EO) on firm performance: The moderating role of top management team functional background and educational background.

Abstract

Entrepreneurial orientation is an essential key for firms' success.Prior studies examined factors that impact EO-performance. However, the TMT functional background and educational background are missing links in examining the relationship between EO and firm performance. Drawing on upper echelon theory (Hambrick and Mason,1984), this study investigates the relationship between entrepreneurial orientation and firm performance by using the role of TMT functional and educational background as moderators.

Introduction

Entrepreneurial orientated firms perform better than other firms (Zahra, 1991; Zahra and Covin, 1995; Wiklund, 1999). It is recognized in research that entrepreneurial firms play a significant role in economic growth (Henderson & Weiler, 2010). With more than 100 entrepreneurial orientation studies, it has become one of the most exciting topics in entrepreneurship and strategy fields in the last three decades. (Lumpkin, 2011; Rauch et al., 2009). Many studies have been done in EO-performance, and many studies found EO contributes to firm performance (e.g., Saeed et al., 2014; Rauch et al., 2009).In firms, EO specifies the decision-making style, and EO is connected to the firm's strategic planning and the firm's attitude, individuals, and behavior. (Covin & Slevin, 1989).The literature of EO has been growing to cover various types of firms and organizations (e.g., Kraus, 2013; Tajjedini et al., 2013). Entrepreneurial orientated firms could respond to competitive environments' challenges (Lumpkin & Dess, 1996; Shane & Venkataraman, 2000).

Data on EO research has been collected from 41 nations (Saeed et al., 2014). Autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness are the five dimensions of entrepreneurial orientation (Lumpkin & Dess, 1996). Competitive aggressiveness as one dimension of entrepreneurial orientation expresses the firm's reaction to competitive threats, and proactiveness as one of the EO dimensions expresses the firm's reaction to market opportunities (Lumpkin & Dess., 2001). Unlike the firm's established practices, innovativeness as a dimension of EO means establishing a new process, experiments, services, or products. (Lumpkin & Dess, 1996; Rauch et al., 2009). Risk-taking is taking high-risk decisions with expectations of high returns (Covin & Slevin, 1989). Lumpkin et al. (2009) state, "autonomy means the freedom and flexibility to develop and enact entrepreneurial initiatives." Lomberg et al. (2016) suggest that each dimension of EO should be considered carefully, and it is better not to apply all the dimensions of EO blindly.

Ordinary firms are less innovative and less risk-taking, unlike EO firms who are risk-taking, proactive, and innovative(Barringer & Bluedorn,1999).Instead of learning from other corporates' experience in terms of risk-taking, the EO dimension of risk-taking is positively connected to a successful firm, and it helps to solve situations that include risks to the firm (Frank et al., 2007). Previous studies on EO, including EO dimensions' use, depend on internal and external factors(Lumpkin & Dess, 1996). Thus, it differs from corporate to another based on the factors. Moreover, the use of EO dimensions differs from one industry and situation to another (Covin & Slevin, 1989). Alvarez and Busenitz. (2001) suggest that the EO's use is the characterization of the process that indicates many activities such as new opportunities and new investments that will benefit the corporate.

Previous research has shown the relationship between entrepreneurial orientation diminutions and firm performance (Lumpkin and Dess, 1996; Dess and Lumpkin, 2005). Previous literature also suggests that there are types of performance which are International performance (Jantunen et al., 2005), objective performance (Tang et al., 2008), Market performance (Hughes et al., 2007), overall performance, and innovation performance (Alegre & Chiva, 2013). Over time the positive impact of entrepreneurial orientation on firm performance has been rising (Zahra & Covin, 1995; Wiklund, 1999). The influence on firm performance could have many perspectives, such as growth increase and satisfying firms' owners (Zahra & Covin, 1995). Yu et al. (2018) suggest that the culture of the country and the environment are essential when examining autonomy and firm performance. Factors such as the age of the firm, the kind of innovativeness, and culture affect the influence of innovation on firm performance (Rosenbusch et al., 2011). Moreover, in the long term EO is associated with firm performance (e.g., Becherer & Maurer, 1997; Lumpkin & Dess, 1996; Wiklund& Shepherd, 2005; Wiklund, 1999).

Proactiveness and competitive aggressiveness make a unique contribution to firm performance (Lumpkin & Dess, 2001). Risk-taking, innovativeness, and proactiveness positively contribute to firm performance, but in different ways (Putniņš & Sauka, 2019). EO positively affects firm performance, and this direct impact is decreased when the knowledge creation process is included in the total effect as a mediator (Li et al., 2008). Managers should consider organizational learning and innovation performance to boost a positive relationship between EO and firm performance (Alegre & Chiva, 2013). Moreover, Wang (2008) suggests that entrepreneurial firms must foster organizational learning to maximize EO's effect on performance. To explain and unravel the way EO contributes to firm performance, moderating variables are added to the studies (Rauch et al., 2009).

Hambrick and Mason (1984) classify TMT functional background into three classifications: output function, throughput function, and peripheral function.Previous studies on top management team considered functional background an area that TMT has spent time in (Cohen & Bailey, 1997; Milliken & Martins, 1996). TMT functional background impacts the way that TMT members use to solve firm problems(Dearborn & Simon,1958). The desire to expand and make strategic decisions is higher with TMT members who have a high level of functional background (Boeker,1997). Smith et al. (1994) suggest that a variety of past experiences would lead the TMT members to a better evaluation of the options and choices to make effective decisions. Moreover, TMT members' relevant functional background is influential for the corporation than the members without relevant functional background (Boeker, 1997). The TMT functional background identifies how the TMT member is the best fit to make corporate decisions (Perrow, 1970).

The functional background is an essential factor in shaping TMT orientation and ability in their work. (Datta, 1997). TMT's functional background impacts the changes that they make in terms of the firm's effectiveness (Waller et al., 1995). The TMT collaboration and the exchange of information are two critical conditions to unleash the performance advantages of functional background diversity(Boone & Hendriks, 2009). Cannella et al. (2008) suggest that TMT functional background's diversity is positively connected to firm performance and negatively connected to TMT members who are geographically distributed. Menz (2012) suggests that the TMT members' functional background impacts corporate performance. The TMT functional background diversity has both pros and cons, and the difficulty is to expect a significant performance influence (Bunderson, 2003; Carpenter, 2002). The relationship between firm performance and TMT members depends on factors such as characteristics and the support of

the chief executive officers (Menz, 2012). TMT members who have overseas experiences positively impact the long and short term performance, and TMT with government backgrounds positively impact firm's overseas performance (Wang et al., 2015).

The top management team's educational background is as important as functional background, and both are defined to determine how top management team make their managerial decisions (Hambrick & Mason, 1984; Hitt & Tyler, 1991; Wiersema & Bantel, 1992).Top management team members whose majors in engineering or science fields are more likely to enhance competitiveness through innovation than following less risk strategy (Tyler & Steensma, 1998; Barker & Mueller, 2002). In terms of perspectives, people with educational backgrounds in engineering are different from people with educational backgrounds in history (Hambrick & Mason, 1984). Kimberly and Evanisko. (1981) suggest that the top management team's acceptability of innovation is based on the level of education. Individuals who are educated can surpass ambiguity and difficult situations (Dollinger, 1984).

The diversity in educational background of TMT creates new views and foster innovative options (Simons et al.,1999). Thus, it leads to a better performance of the firm. The kind of academic degree TMT members hold impact their decision-making strategies (Hitt & Tyler, 1991). TMT members with MBA degrees improve the firm revenue, and the corporate social responsibility executive's experience positively impacts firm performance(Wiengarten et al., 2015). The educational background of TMT members would negatively impact the firm performance when the level of leadership is low (Wu & Wei, 2010).

TMT Educational background and functional background reflect TMT members' professionalism (Hambrick & Mason, 1984; Walsh, 1988; Smart & Pascarelta, 1986). Lee et al. (2017) suggest that firms need to appoint TMT members who have innovation experience to raise firm performance. Bantel & Jackson. (1989) found that high levels of TMT functional background and educational background are positively connected to innovation. Also, Hambrick and Mason. (1984) found that a high level of education is positively connected to overall innovation. Educational and functional background heterogeneous fail because it slows the decision-making process, which affects firm performance. (Cannella et al, 2008; Chatman & Flynn, 2001). Wu et al. (2010) suggest that with a high level of TMT leadership, educational background, and functional background of the top management team are positively connected to corporate performance. However, psychological attachment is a negative result of educational and functional background heterogeneous which, in turn impacts firm performance (Cannella et al, 2008; Chatman & Flynn, 2001). Previous studies found that the diversity of TMT members impacts EO and innovation (e.g., Ancona & Caldwell, 1992; Boeker, 1997a, 1997b; Miller et al, 1998; O'Reilly et al, 1993; Talke et al, 2011). Team heterogeneity is negatively associated with strategic consensus, and that would lead to a delay in the entrepreneurial move for the firm (Hambrick et al., 1996).

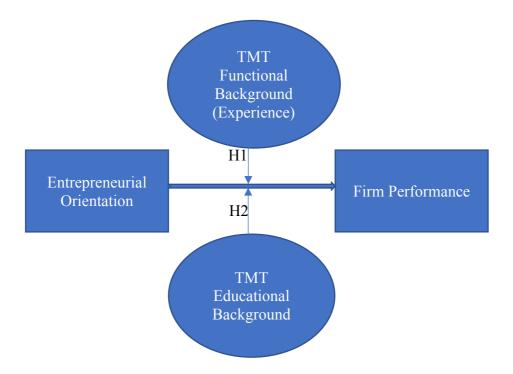
Previous studies found that the impact of EO on firm performance is affected by variables such as culture and business size(Rauch et al., 2004), the access to the dynamism of the environment and financial resources(Wiklund & Shepherd, 2005), the effect of network capabilities (Walter et al., 2005), the effect of strategic processes (Covin et al., 2006), and the firm's learning orientation (Wang, 2008). Although Doorn and Volberda. (2009) investigated how the senior team's two attributes moderate the relationship between entrepreneurial orientation and firm performance, their focus was only on senior team heterogeneity and shared vision attributes. The top management team plays a significant role in creating organizational characteristics by being an essential part of the decision-making process (Hambrick et al., 1996). Thus, TMT functional background and TMT educational background are missing links in examining the relationship between EO and firm performance. The objective of this study is to advance the literature that has studied EO-performance by using TMT functional background and TMT educational background as moderators to examine the impact of EO on firm performance. Specifically, the study's question is to what extent is entrepreneurial orientation related to firm performance, and is the relationship moderated by TMT functional background and TMT educational background?

In this study, I make a contribution to the literature. I cast additional light on how the functional background and educational background of the top management team (TMT) as moderators affect the firm performance of an entrepreneurial oriented company. This study seeks to contribute to the EO-performance literature by incorporating the functional background and educational background of the top management team (TMT) as moderators.

Hypotheses Development

Hambrick and Mason (1984) suggest upper echelon theory that the firm outputs are based on the top management team background attributes. Moreover, functional track and education are two characteristics of TMT, and performance, which includes growth, profitability, and survival, is considered organizational outcomes (Hambrick & Mason, 1984). Drawing on upper echelon theory (Hambrick & Mason, 1984). This study argues that TMT's functional background and educational background moderate the relationship between entrepreneurial orientation and firm performance. Upper echelon theory (Hambrick & Mason, 1984) helps to build this argument, which leads to the following two hypotheses: **H1**/TMT functional background moderates the relationship between entrepreneurial orientation and firm performance such that when TMT's experience is high, the relationship between entrepreneurial orientation and firm performance is stronger compared to when TMT's experience is low.

H2/TMT educational background moderates the relationship between entrepreneurial orientation and firm performance such that when TMT's education is high, the relationship between entrepreneurial orientation and firm performance is stronger compared to when TMT's education is low.



References

Zahra, S. (1991). Predictors and financial outcomes of corporate entrepreneurship: An explorative study. Journal of Business Venturing, 6:259-285.

Zahra, S. & Covin, J. (1995). Contextual influence on the corporate entrepreneurship – performance relationship: A longitudinal analysis. Journal of Business Venturing, 10:43-58.

Wiklund, J. (1999). The sustainability of the entrepreneurial orientation-performance relationship. Entrepreneurship Theory and Practice, 24(1):37-48.

Lumpkin GT. (2011). From legitimacy to impact: moving the field forward by asking how entrepreneurship informs life. Strategic Entrepreneurship Journal 5(1): 3–9.

Saeed, S., Yousafzai, S.Y., & Engelen, A. (2014). On cultural and macroeconomic contingencies of the entrepreneurial orientation-performance relationship. Entrepreneurship Theory and Practice, 38, 255–290.

Rauch, A., Wiklund, J., Lumpkin, G.T., & Frese, M. (2009). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. Entrepreneurship Theory and Practice, 33, 761–787.

Kraus, S. (2013). The role of entrepreneurial orientation in service firms: Empirical evidence from Austria. Service Industries Journal, 33, 427–444.

Tajjedini, K., Elg., U., & Trueman, M. (2013). Efficiency and effectiveness of small retailers: The role of customer and entrepreneurial orientation. Journal of Retailing and Consumers Services, 20, 453–462.

Covin, J.G. & Slevin, D.P. (1989). Strategic management of small firms in hostile and benign environ- ments. Strategic Management Journal, 10(1), 75–87.

Talke, K., Salomo, S., & Kock, A. (2011). Top management team diversity and strategic innovation orientation: The relationship and consequences for innovativeness and performance. Journal of Product Innovation Management, 28, 819–832.

Rauch, A., Wiklund, J., Frese, M. & Lumpkin, T.G. (2004). Entrepreneurial orientation and business performance: Cumulative empirical evidence. In Bygrave, W.D., Brush, C.G., Davidsson, M.L.P., Meyer, G.D., Fiet, J., Sohl, J., Greene, P. G., Zacharakis, A. and Harrison, R.T. (Eds). Frontiers of Entrepreneurship Research.

Wiklund, J. & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: A configuration approach. Journal of Business Venturing, 20:71-91.

Walter, A., Auer, M. & Ritter, T. (2005). The impact of network capabilities and entrepreneurial orientation on university spin-off performance. Journal of Business Venturing, 21(4):541-567.

Covin, J. G., Green, K. M. & Slevin, D. P. (2006). Strategic process effects on the entrepreneurial orientation-sales growth rate relationship. Entrepreneurship Theory and Practice, 30(1):57-81.

Wang, C. L. (2008) Entrepreneurial orientation, learning orientation, and firm performance. Entrepreneurship Theory and Practice, 32(4): 635-656.

Doorn, S. V., & Volberda, H. W. (2009). Entrepreneurial orientation and firm performance: The role of the senior team. Academy of Management Proceedings, 2009(1), 1-6.doi:10.5465/ambpp.2009.44257958

Hambrick DC, Cho TS, Chen MJ (1996) The influence of top management team heterogeneity on firms' competitive moves. Adm Sci Q 41(4):659–684.

Lumpkin, G.T., & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. Academy of Management Review, 21, 135–172.

Lumpkin, G. T., & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. Journal of Business Venturing, 16(5), 429–451.

Henderson, J., & Weiler, S. (2010). Entrepreneurs and job growth: Probing the boundaries of time and space. Economic Development Quarterly, 24(1), 23–32.

Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. Academy of Management Review, 25(1), 217–236.

Lumpkin GT, Cogliser CC and Schneider DR (2009) Understanding and measuring autonomy: An entrepre- neurial orientation perspective. Entrepreneurship Theory and Practice 33(1): 47–69.

Yu, A., Lumpkin, G., Parboteeah, K. P., & Stambaugh, J. E. (2019). Autonomy and family business performance: The joint effect of environmental dynamism and national culture. International Small Business Journal: Researching Entrepreneurship, 37(2), 153-185. doi:10.1177/0266242618811893.

Lomberg, C., Urbig, D., Stöckmann, C., Marino, L. D., & Dickson, P. H. (2017). Entrepreneurial Orientation: The Dimensions' Shared Effects in Explaining Firm Performance. Entrepreneurship Theory and Practice, *41*(6), 973-998. doi:10.1111/etap.12237.

Rosenbusch, N., Brinckmann, J., & Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. Journal of Business Venturing, 441-457.

Becherer, R., & Maurer, J. (1997). The moderating effect of environmental variables on the entrepreneurial and marketing orientation of entrepreneur-led firms. Entrepreneurship Theory and Practice, 22(1), 47–58.

Barringer, B.R., and A.C. Bluedorn. (1999). The relationship between corporate entrepreneurship and strategic management. Strategic Management Journal 20: 421–44.

Frank, H., M. Lueger, and C. Korunka. (2007). The significance of personality in business start- up intentions, start-up realization and business success. Entrepreneurship & Regional Development 19: 227–51.

Li, Y., Huang, J., & Tsai, M. (2008). Entrepreneurial orientation and firm performance: The role of knowledge creation process. *Industrial Marketing Management, 38*(4), 440-449. doi:10.1016/j.indmarman.2008.02.004.

Alegre, J., & Chiva, R. (2013). Linking Entrepreneurial Orientation and Firm Performance: The Role of Organizational Learning Capability and Innovation Performance. Journal of Small Business Management, *51*(4), 491-507. doi:10.1111/jsbm.12005.

Wang, C. L. (2008) Entrepreneurial orientation, learning orientation, and firm performance. Entrepreneurship Theory and Practice, 32(4): 635-656.

Jantunen, A., Puumalainen, K., Saarenketo, S. and Kyläheiko, K. (2005), "Entrepreneurial orientation, dynamic capabilities and international performance", Journal of International Entrepreneurship, Vol. 3 No. 3, pp. 223-243.

Tang, J., Tang, Z., Marino, L.D., Zhang, Y. and Li, Q. (2008), "Exploring an inverted U-shape relationship between entrepreneurial orientation and performance in chinese ventures", Entrepreneurship Theory and Practice, Vol. 32 No. 1, pp. 219-239.

Hughes, M., Hughes, P. and Morgan, R.E. (2007), "Exploitative learning and entrepreneurial orientation alignment in emerging young firms: implications for market and response performance", British Journal of Management, Vol. 18 No. 4, pp. 359-375.

Alverez, S.A., and L.W. Busenitz. (2001). The entrepreneurship of resource-based theory. Journal of Management, 27: 755–775.

Dearborn, D. C., & Simon, H. A. (1958). Selective perception: A note on the departmental identifications of executives. Sociometry, 21(2), 140–144.

Milliken, F. J., & Martins, L. L. (1996). Searching for com- mon threads: Understanding the multiple effects of diversity in organizational groups. Academy of Management Review, 21: 402–433.

Cohen, S. G., & Bailey, D. E. (1997). What makes teams work: Group effectiveness research from the shop floor to the executive suite. Journal of Management, 23: 239–290.

Smith, K. G., Smith, K. A., Olian, J. D., Sims, 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: 412–438.

Boeker, W. (1997). Executive migration and strategic change: The effect of top manager movement on product-market entry. Administrative Science Quarterly, 42(2), 213–236.

Perrow, C. (1970). Departmental power and perspectives in industrial firms. In M. Zald (Ed.), Power in organizations (pp. 59–89). Nashville: Vanderbild University Press.

Menz, M. (2012). Functional top Management team members: A review, synthesis, and research agenda. Journal of Management, 38(1), 45–80.

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.

Hitt, M. A., & Tyler, B. B. (1991). Strategic decision models: Integrating different perspectives. Strategic Management Journal, 12(5), 327–351.

Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. Academy of Management Journal, 35(1), 91–121.

Tyler, B. B., & Steensma, H. K. (1998). The effects of executives' experiences and perceptions on their assessment of potential technological alliances. Strategic Management Journal, 19(10), 939–965.

Barker, V. L., III, & Mueller, G. C. (2002). CEO characteristics and firm R&D spending. Management Science, 48(6), 782–801.

Kimberly, J. R., & Evanisko. M. J. (1981). Organizational innovation: The influence of individual, organizational and contextual factors on hospital adoption of technological and administrative innovations. Academy of Management Journal. 24: 689-713.

Dollinger, M. (1984). Environmental boundary spanning and information processing effects on organizational performance. Academy of Management Journal, 27:351-296.

Bental, K., &, Jackson, S. (1989). Top management and innovations in banking: Does the composition of the top team make a difference? Strategic Management Journal, 10: 107-124.

Hitt, M., & Tyler, B. (1991). Strategic decision models integrating different perspectives. Strategic Management Journal, 12: 327-352.

Wiengarten, F., Lo, C. K., & Lam, J. Y. (2015). "How does Sustainability Leadership Affect Firm Performance? The Choices Associated with Appointing a Chief Officer of Corporate Social Responsibility". Journal of Business Ethics, *140*(3), 477-493. doi:10.1007/s10551-015-2666-5.

Lee, C., Park, G., Marhold, K., & Kang, J. (2017). Top management team's innovationrelated characteristics and the firm's explorative R&D: An analysis based on patent data. Scientometrics, *111*(2), 639-663. doi:10.1007/s11192-017-2322-1.

Bunderson, J. S. (2003). Team member functional back- ground and involvement in management teams: Direct effects and the moderating role of power cen- tralization. Academy of Management Journal, 46: 458 – 473.

Carpenter, M. A. (2002). The implications of strategy and social context for the relationship between top man- agement team heterogeneity and firm performance. Strategic Management Journal, 23: 275–284.

Hambrick, C, and Phyllis A. (1984). Upper echelon: The organization as a reflection of its top managers. Academy of Management Review, 9: 193-206.

Walsh, P. (1988). Top management turnover following mergers and acquisitions. Strategic Management Journal, 9: 173-183.

Smart, C, and Ernest T. (1986). Self-concept development and educational degree attainment." Higher Education, 15: 3-15-.

Bantel, K, and. Jackson, E. (1989). Bridging the boundary; External activity and performance in organizational teams. Administrative Science Quarterly,37: 634-665.

Wu, L., Lau, C., & Wei, L. (2010).TMT Educational and Functional Background Diversity, Team Mechanisms and Firm Performance: The Moderating Role of CEO Empowering Leadership. *Academy of Management Proceedings, 2010*(1), 1-6. doi:10.5465/ambpp.2010.54498889.

Simons, T., Pelled, L.H., & Smith, K.A. (1999). Making use of difference: Diversity, debate, and decision comprehensiveness in top management teams. Academy of Management Journal, 42, 662–673.

Guthrie Datta, J. P. D. K. (1997). Contextual influences on executive selection: Firm characteristics and CEO experience. Journal of Management Studies, 34(4), 537–560.

Cannella Jong, A., Park, J., & Lee, H. (2008). TMT Educational and Functional Background Diversity, Team Mechanisms and Firm Performance: The Moderating Role of CEO Empowering LeadershipLong. Academy of Management.

Chatman, J. A., & Flynn, F. J. (2001). The influence of demographic heterogeneity on the emergence and consequences of cooperative norms in work teams. Academy of management journal, 44(5), 956-974.

Boeker, W. (1997). Executive migration and strategic change: The effect of top manager movement on product-market entry. Administrative Science Quarterly, 42(2), 213–236.

Boone, C., & Mendriks, W. (2009). Top Management Team Diversity and Firm Performance: Moderators of Functional-Background and Locus-of-Control Diversity. Management Science, 165-180. doi:doi 10.1287/mnsc.1080.0899.

Wang, X., Ma, L., & Wang, Y. (2015). The impact of TMT functional background on firm performance. Nankai Business Review International, *6*(3), 281-311. doi:10.1108/nbri-11-2013-0040.

Putniņš, T. J., & Sauka, A. (2019). Why does entrepreneurial orientation affect company performance? *Strategic* Entrepreneurship Journal. doi:10.1002/sej.1325.

Ancona, D.G. & Caldwell, D.C. (1992). Demography and design: Predictors of new product team performance. Organization Science, 3, 321–341.

O'Reilly, C.A., Snyder, R.C., & Boothe, J.N. (1993). Executive team demography and organizational change. In G.P. Huber & W.H. Glick (Eds.), Organizational change and redesign: Ideas and insights for improving performance (pp. 147–175). New York: Oxford University Press.

Boeker, W. (1997a). Executive migration and strategic change: The effect of top manager movement on product market entry. Administrative Science Quarterly, 42, 231–236.

Boeker, W. (1997b). Strategic change: The influence of managerial characteristics and organizational growth. Academy of Management Journal, 40, 152–170.

Miller, C.C., Burke, L.M., & Glick, W.H. (1998). Cognitive diversity among upper-echelon executives: Implications for strategic decision process. Strategic Management Journal, 19(1), 39–58.