# Does Learning Orientation Drive New Product Competitive Advantage and Success? A Conceptual Framework and Research Propositions

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## Abstract

Since so many new products fail in the marketplace after their launch, identifying the determinants of new product competitive advantage and performance is critical. New product development (NPD) requires the acquisition, dissemination, and utilization of information that is supplied through organizational learning. Learning-oriented organizational cultures facilitate discovery and creativity processes that go into the NPD. In spite of its significance, the concept of a learning orientation has not been explored sufficiently at the project level in the NPD context. This study aims to fill this void in the literature by articulating a conceptual framework that depicts the direct and indirect relationships between organizational learning orientation and new product competitive advantage. Memory level and memory dispersion mediate the relationship between these two constructs at the project level. The evidence supporting the proposed research framework suggests that learning-oriented organizations create strong organizational memories that lead to higher levels of new product competitive advantage and success. The theoretical and practical implications of this study are discussed and future research suggestions are provided.

Keywords: new product, organizational behavior, strategic management, marketing management

# 1. Introduction

New product development (NPD) has been envisioned by some scholars as a process of organizational learning comprehending the acquisition, dissemination, and utilization of information (Day, 1994; Moorman, 1995; Moorman & Miner, 1997). NPD is based on discovery and creation processes, or generative learning (Moorman & Miner, 1997) which is an outcome of a learning orientation (Baker & Sinkula, 1999). A learning-oriented organization highly values open-mindedness among its employees. Managers encourage their employees to think creatively and generate original ideas (Sinkula et al., 1997). Learning orientation is related to new product success, change in relative market share, and overall performance (Baker & Sinkula, 1999). Organizational learning has been studied as a key factor in firm performance (Weerawardena et al., 2015). In spite of the importance of organizational learning in the marketing context, the number of studies linking the concept of organizational learning to marketing has been limited (e.g., Baker & Sinkula, 1999; Fang et al., 2014; Hurley & Hult, 1998; Lam et al., 2010; Nasution et al., 2011; Santos-Vijande et al., 2005; Sinkula, 1994; Sinkula et al., 1997; Slater & Narver, 1995). To the authors' best knowledge, the number of studies that have explored the effects of organizational learning orientation on the NPD process and new product competitive advantage has been small (e.g., Gutierrez-Gutierrez et al., 2018; Huang & Li, 2017; Peng & Shao, 2021; Roberts & Palmer, 2012). Past studies explored various roles of learning orientation in the NPD process. This study aims to close the gap in the literature by developing a conceptual framework and research hypotheses that depicts the relationship between organizational learning orientation and new product performance and the mediating effects of memory level, memory dispersion, and product competitive advantage on this relationship at the project level. The present study contributes to the relevant literature by shedding light on the complex processes behind NPD and new product performance in relation to the effects of organizational learning orientation and project-level organizational memory.

# 2. Organizational Learning and Learning Orientation

Chris Argyris has been identified as the first person who coined the term organizational learning (Fulmer & Keys, 1998). Cyert and March (1963) described organizational learning as a process by which organizations as collectives learn through interaction with their environments (Sinkula, 1994, p. 35). Slater and Narver (1995:63) defined organizational learning as the development of new knowledge or insights that have the potential to influence behavior (also see Fiol & Lyles, 1985; Huber, 1991, 1996; Simon, 1969; Sinkula, 1994). Organizations differ in the rate at which they learn (Argote et al., 2021). Learning orientation is an organizational characteristic (Baker & Sinkula, 1999) that is closely associated with organizational learning. Learning orientation is defined as an organizational characteristic that reflects the value that a firm places not only on adroitly responding to changes in the environment (Baker & Sinkula, 1999:412). It is argued that there is a positive direct relationship between the level of learning orientation and the amount of organizational learning occurring within the organization (Baker & Sinkula, 1999; Slater & Narver, 1995).

## 3. Conceptual Framework and Research Hypotheses

Figure I presents the proposed conceptual framework that is based on the direct and indirect effects of organizational learning on new product competitive advantage that influences new product performance. According to this framework, the relationship between learning orientation and product competitive advantage is mediated by memory level and memory dispersion which are project-level variables. A total of six hypotheses were postulated and they are presented below along with the supporting evidence and arguments.



# 3.1 Effect of Learning Orientation on Product Competitive Advantage

Product competitive advantage is a construct that is based on a comparison of a new product to competing products in terms of uniqueness, superiority, job performance, product quality (tighter specifications, stronger, lasting longer, and more reliable), and technical performance (Li & Calantone, 1998; Song & Parry, 1997). An organization with a strong learning orientation emphasizes information dissemination and sharing (Huber, 1991, 1996) and inter-functional coordination or interaction (Slater & Narver, 1995). These aspects of organizational learning orientation are also critical to the success of NPD (Huang & Li, 2017). When information freely flows from one functional department to another, the organization's ability to make rapid decisions and execute them effectively increases (Slater & Narver, 1995). Information sharing in the product development process is greatly encouraged by sending people from various departments on customer visits. In this way, not only does the quality of the information collected increase but also real-time (Slater & Narver, 1995) information sharing is achieved. In order to carry new products from concept to launch more quickly and with minimal mistakes, all functional interfaces among organizational units are of great importance in the product development process (Gupta et al., 1986). Effective interfacing is accomplished by conducting multifunctional activities multifunctional discussions and information exchange (Cooper & Kleinschmidt, 1991, p. 140). A learning orientation ensures continuous, organization-wide information sharing and information interpretation which in turn enhance product attributes such as creativity or uniqueness, superiority, job performance, quality, and technical performance. All these attributes constitute to new product competitive advantage. Salavou (2005) found out that learning orientation supported by stronger customer and technology orientations emerges as a key organizational capability in creating more unique new products for the market. Market-driven learning is considered to be the major facilitator of superior customer value (Slater & Narver, 1994) which is also related to product competitive advantage. On the basis of these arguments, the following hypothesis is proposed:

*H1:* The higher the level of learning orientation exhibited by the organization, the higher the degree of the new product's competitive advantage introduced by the organization.

#### 3.2 Effect of Learning Orientation on Organizational Memory

Organizational memory can be viewed as a major outcome of organizational learning. Organizational memory represents learned ways of thinking and behaving (Moorman & Miner, 1998:7). According to Moorman and Miner (1997, pp. 92-93), organizational memory can be found in three basic forms in organizations: Memory can be found in (1) organizational *beliefs*, knowledge, frames of reference, models, values, and norms and in (2) formal and informal *behavioral routines*, procedures, and scripts resulting from learning from experience particular ways of doing things, and in (3) an organization's *physical artifacts* resulting from prior learning. Clearly, all of these memory forms are associated with learning. A number of authors have tried to explain the meaning and formation of organizational memory within an organization (e.g., Levitt & March, 1996). Levitt and March (1996, p. 524) argued that routine-based conceptions of learning presume that the lessons of experience are maintained and accumulated within routines despite the turnover of personnel and the passage of time. Rules, procedures, technologies, beliefs, and cultures are conserved through systems of socialization and control. According to Berthon et al. (2001, p. 138), memory development is based on the firm's capacity to encode experience and accumulate learning. Learning is central to building a strong memory at every level.

Moorman and Miner (1997) conceptualized organizational memory in two sub-dimensions: Organizational memory level and organizational memory dispersion. Organizational memory level is defined as the amount of knowledge, experience, and familiarity an organization has in a product category (Moorman & Miner, 1997, p. 97). In other words, organizational memory level is the extent to which an SBU or a single company possessed knowledge, experience, familiarity, and R&D investment in a product category before the specific new product project was undertaken. Organizational memory dispersion is the degree of consensus or shared knowledge among new product participants (Moorman & Miner, 1997, p. 97). Moorman and Miner (1997) assumed that the higher the level of organizational memory dispersion, the more similar the group members' beliefs become on a certain subject. More specifically, organizational memory dispersion is described as the degree of consensus among the people working on the project for the new product areas of product design, brand name, packaging, promotional content, and product quality level (Moorman & Miner, 1997). Organizational memory level and organizational memory dispersion are both project-level constructs.

A learning-oriented organization is expected to have a strong commitment to learning (Baker & Sinkula, 1999) both at the individual and organizational levels. It emphasizes learning as the key to a sustainable competitive advantage and continuous improvement within the organization (Baker & Sinkula, 1999). Learning at both individual and organizational levels is seen as a form of investment in a learning-oriented organization (Baker & Sinkula, 1999). Learning is encouraged and valued at every level.

An organization with a strong learning orientation is likely to be capable of generating and utilizing every type of knowledge, including market-derived knowledge (Baker & Sinkula, 1999; Sinkula et al., 1997), and facilitating information sharing within the organization. Continuous information sharing leads to shared interpretations within the organization which are crucial for organizational learning to occur. Slater and Narver (2000, p. 126) suggested that organizational learning occurs only when intelligence is widely shared in the organization. It is essential to create opportunities and forums for this sharing to occur. Information acquisition and information sharing have an important role in the formation of organizational memory (Argyris & Schön, 1978; Sinkula, 1994). An organizational culture that embraces learning provides a perfect medium for organizational memory to flourish.

Based on the above arguments, the following two hypotheses were suggested regarding the effects of learning orientation on organizational memory level and memory dispersion pertinent to the new product's domain:

H2: Learning orientation will have a positive effect on organizational memory level pertinent to the new product's domain.

H3: Learning orientation will have a positive effect on organizational memory dispersion pertinent to the new product's domain.

# 3.3 Effect of Organizational Memory Level on Product Competitive Advantage

Organizational memory level influences new product creativity (Moorman & Miner, 1997) which is a component of product competitive advantage (Li & Calantone, 1998; Song & Parry, 1997). New product creativity was

defined as the degree to which a new product is novel and has the generative capacity (i.e., the potential to change thinking and practice) (Moorman & Miner, 1997:94). New product creativity was measured by the extent to which the new product (1) challenged existing ideas for this category, (2) offered new ideas for this category, (3) was creative, and (4) spawned ideas for other products (Moorman & Miner, 1997). Organizational memory affects new product creativity positively (Cohen & Levinthal, 1990; Moorman & Miner, 1997). Cohen and Levinthal (1990) contended that organizational memory can enhance an organization's ability to evaluate and import new outside information, and this action could increase creativity. Drawing upon the findings of past research, the following hypothesis is proposed:

H4: Higher levels of organizational memory pertaining to the new product project will improve the new product's competitive advantage.

#### 3.4 Effect of Organizational Memory Dispersion on Product Competitive Advantage

One stream of research suggests that dispersing information across organizational functions (through greater inter-functional communication links such as between R&D and marketing) has a critical role in the success of new product innovations (Gupta et al., 1986; Moorman & Miner, 1997). Memory dispersion enhances cross-functional understanding, cooperation, and cross-fertilization (Moorman and Miner, 1997; Souder, 1987). When the assumptions about the market are disseminated and shared across the organization, firms can respond to information in a more timely and coherent manner (Day, 1994:44). Thus, memory dispersion leads to better new product attributes and outcomes. Moorman and Miner (1997) found that organizational memory dispersion affects the creativity of new products positively. Based on the evidence from past research, the following hypothesis is posited:

# H5: Higher levels of organizational memory dispersion pertaining to the new product project will result in a better new product competitive advantage.

#### 3.5 Effect of Product Competitive Advantage on New Product Performance

According to past research, product-related attributes such as product competitive advantage (Li & Calantone, 1998) drive new product performance. Product quality and reliability (Olson et al., 1995), product design (Olson et al., 1995), technical success (Cooper & Kleinschmidt, 1995), and product proprietary advantage in the forms of patents and trade secrets (Atuahene-Gima, 1995) are among those attributes that constitute to new product competitive advantage and are likely to improve new product performance. New product creativity is described as the extent to which the product is novel and challenges existing ideas for this category; offers new ideas for the category; is creative; is interesting; spawns ideas for other products; encourages fresh thinking (Moorman, 1995); and has the generative capacity (Moorman and Miner, 1997). These product characteristics represent new product competitive advantage and are likely to improve new product performance (Moorman, 1995; Moorman & Miner, 1997). Tsai et al. (2013) found through a meta-analysis that product advantage is one of the dominant drivers of new product performance. Based on the above evidence, it is suggested that:

*H6: Higher levels of product competitive advantage pertaining to the new product will result in better new product performance.* 

# 4. Discussion and Implications

This study aims to explore the impact of learning orientation on NPD and new product outcomes through a conceptual framework. NPD is an information-based process in which the acquisition, dissemination, and utilization of information (Day, 1994; Moorman, 1995; Moorman & Miner, 1997) occur. The acquired and disseminated information is utilized to develop attractive products for the market. Learning-oriented organizational cultures encourage their employees to think creatively and generate original ideas (Sinkula et al., 1997). A high level of learning orientation can ensure creative thinking and novel discoveries that may lead to new products with strong competitive advantages. Empirical and anecdotal evidence suggests that new product competitive advantage drives new product success. This study contributes to the relevant research by establishing linkages between learning orientation, product competitive advantage, and new product performance. This conceptual study shows that the learning-intensive work environment has a strong potential to create competitive, successful new products. In addition, the mediating effects of organizational memory level and memory dispersion between learning orientation and product competitive advantage are explored at the project level.

This study is subject to potential limitations. The suggested conceptual framework can be limited in its representation of all the complex processes of NPD that lead to product competitive advantage and success.

Future studies should explore the roles of and interplays among other organizational and project-level variables including but not limited to, absorptive capability, strategic orientations, Marketing and R&D integration, and team communication effectiveness.

The proposed conceptual framework and associated arguments and evidence presented suggest that managers must recognize the significance of organizational learning orientation in the NPD process and for new product outcomes. They should proactively develop organizational culture that values learning. Previous research has shown that individual-level behaviors known as organizational citizenship behaviors enhance the capability of the firm to identify, assimilate/transform, and exploit new knowledge (absorptive capacity) (Hart et al., 2016). In addition, building a work environment that encourages information dissemination and sharing (Huber, 1991, 1996) and coordination and interaction across functional units (Slater & Narver, 1995) is essential for a learning orientation to flourish. Learning orientation strengthens organizational memory. Redesigning work routines, procedures, and processes, reward systems, or performance evaluations in order to promote learning (Huang & Chin, 2018) would be a good start to developing an organizational culture that values learning and develops a strong memory. Retaining what is learned and retrieving the stored information when needed during NPD is critical for organizational success.

#### 5. Conclusion

This paper aims to fill a significant gap that has existed in the marketing literature by theoretically investigating the link between learning orientation and new product competitive advantage at the project level. This study also explores the mediating role of a strong organizational memory on the relationship between learning orientation and product competitive advantage in the new product development process. The study answers the crucial question of whether learning-oriented organizations are more likely to produce competitive products that succeed in the marketplace. According to the suggested conceptual framework, learning-oriented organizations create strong organizational memories that lead to higher levels of new product competitive advantage. Given the fact that the incorporation of learning orientation into NPD has been slow and limited to date, this study significantly contributes to the relevant literature by incorporating learning orientation into the new product development context. This area of research deserves close further attention by scholars given the high number of new products that fail in the marketplace.

#### References

- Argote, L., Lee, S., & Park, J. (2021). Organizational learning processes and outcomes: Major findings and future research directions. *Management Science*, 67(9), 5399-5429. http://dx.doi.org/10.1287/mnsc.2020.3693
- Argyris, C., & Schön, D. A. (1978). Organizational Learning: A Theory of Action Perspective. Reading, MA: Addison-Wesley. http://dx.doi.org/10.2307/40183951
- Atuahene-Gima, K. (1995). An exploratory analysis of the impact of market orientation on new product performance: A contingency approach. *The Journal of Product Innovation Management*, 12(4), 275-293. http://dx.doi.org/10.1111/1540-5885.1240275
- Baker, W. E., & Sinkula, J. M. (1999). The synergistic effect of market orientation and learning orientation on organizational performance. *Journal of the Academy of Marketing Science*, 27(4), 411-427. http://dx.doi.org/10.1177/0092070399274002
- Berthon, P., Pitt, L. F., & Ewing, M. T. (2001). Corollaries of the collective: The influence of organizational culture and memory development on perceived decision-making context. *Journal of Academy of Marketing Science*, 29(2), 135-150. http://dx.doi.org/10.1177/03079459994515
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35(March), 128-152. http://dx.doi.org/10.2307/2393553
- Cooper, R. G., & Kleinschmidt, E. J. (1995). Performance typologies of new product projects. *Industrial Marketing Management*, 24, 439-456. http://dx.doi.org/10.1016/0019-8501(95)00034-8
- Cooper, R. G., & Kleinschmidt, E. J. (1991). New product processes at leading industrial firms. *Industrial Marketing Management*, 20(2), 137-147. http://dx.doi.org/10.1016/0019-8501(91)90032-B
- Cyert, R. M., & March, J. G. (1963). A Behavioral Theory of the Firm. Englewood Cliffs, NJ: Prentice-Hall.
- Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, 58(4), 37-52. http://dx.doi.org/10.2307/1251915

- Fang, S. R., Chang, E., Ou, C. C., & Chou, C. H. (2014). Internal market orientation, market capabilities and learning orientation. *European Journal of Marketing*, 48(1/2), 170-192. http://dx.doi.org/10.1108/EJM-06-2010-0353
- Fiol, C. M., & Lyles, M. A. (1985). Organizational learning. Academy of Management Review, 10(4), 803-813. http://dx.doi.org/10.2307/258048
- Fulmer, R. M., & Keys, J. B. (1998). A conversation with Chris Argyris: The father of organizational learning. Organizational Dynamics, 27(2), 21-32. http://dx.doi.org/10.1016/S0090-2616(98)90021-3
- Gupta, A. K., Raj, S. P., & Wilemon, D. (1986). A model for studying R&D-Marketing interface in the product innovation process. *Journal of Marketing*, 50, 7-17. http://dx.doi.org/10.2307/1251596
- Gutierrez-Gutierrez, L. J., Barrales-Molina, V., & Kaynak, H. (2018). The role of human resource-related quality management practices in new product development A dynamic capability perspective. *International Journal of Operations and Production Management, 38*(1), 43-66.
- Hart, T. A., Gilstrap, J. B., & Bolino, M. C. (2016). Organizational citizenship behavior and the enhancement of absorptive capacity. *Journal of Business Research*, 69(10), 3981-3988. http://dx.doi.org/10.1016/j.jbusres.2016.06.001
- Huang, J. W., & Li, Y. H. (2017). The mediating role of ambidextrous capability in learning orientation and new product performance. *Journal of Business and Industrial Marketing*, 32(5), 613-624. http://dx.doi.org/10.1108/JBIM-01-2015-0017
- Huang, Y. C., & Chin, Y. C. (2018). Transforming collective knowledge into team intelligence: The role of collective teaching. *Journal of Knowledge Management*, 22(6), 1243-1263. http://dx.doi.org/10.1108/JKM-03-2017-0106
- Huber, G. P. (1991). Organizational learning: The contributing processes and the literatures. *Organization Science*, 2(February), 88-115. http://dx.doi.org/10.1287/orsc.2.1.88
- Huber, G. P. (1996). Organizational learning: The contributing processes and the literatures. In M. D. Cohen and L. S. Sproull (Eds.), *Organizational learning*. Thousands Oaks, CA: Sage Publications.
- Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. *Journal of Marketing*, 62(3), 42-54. http://dx.doi.org/10.2307/1251742
- Lam, S. K., Kraus, F., & Ahearne, M. (2010). The diffusion of market orientation throughout the organization: A social learning theory perspective. *Journal of Marketing*, 74(5), 61-79. http://dx.doi.org/10.1509/jmkg.74.5.61
- Levitt, B., & March, J. G. (1996). Organizational learning. In M. D. Cohen and L. S. Sproull (Eds.), *Organizational learning*. Thousands Oaks, CA: Sage Publications.
- Li, T., & Calantone, R. J. (1998). The impact of market knowledge competence on new product advantage: Conceptualization and empirical examination. *Journal of Marketing*, 62, 13-29. http://dx.doi.org/10.2307/1252284
- Moorman, C. (1995). Organizational market information processes: Cultural antecedents and new product outcomes. *Journal of Marketing Research*, 32, 318-35. http://dx.doi.org/10.2307/3151984
- Moorman, C., & Miner, A. S. (1998). The convergence of planning and execution: Improvisation in new product development. *Journal of Marketing*, 62(3), 1-20. http://dx.doi.org/10.2307/1251740
- Moorman, C., & Miner, A. S. (1997). The impact of organizational memory on new product performance and creativity. *Journal of Marketing Research*, 34(February), 91-106. http://dx.doi.org/10.2307/3152067
- Nasution, H. N., Mavondo, F. T., Matanda, M. J., & Ndubisi, N. O. (2011). Entrepreneurship: Its relationship with market orientation and learning orientation and as antecedents to innovation and customer value. *Industrial Marketing Management*, 40(3), 336-345. http://dx.doi.org/10.1016/j.indmarman.2010.08.002
- Olson, E. M., Walker, O. C. Jr., & Ruekert, R. W. (1995). Organizing for effective new product development: The moderating role of product innovativeness. *Journal of Marketing*, 59(January), 48-62. http://dx.doi.org/10.2307/1252014
- Peng, M. Y. P., & Shao, L. J. (2021). How do the determinants of new product development matter in the international context? The moderating role of learning orientation. *Journal of Competitiveness, 13*(3),

129-146. http://dx.doi.org/10.7441/joc.2021.03.08

- Roberts, D., & Palmer, R. (2012). Developing a visceral market learning capability for new product development. *International Journal of Market Research*, 54(2), 199-220. http://dx.doi.org/10.2501/IJMR-54-2-199-220
- Salavou, H. (2005). Do customer and technology orientations influence product innovativeness in SMEs? Some new evidence from Greece. *Journal of Marketing Management, 21*(3-4), 307-338. http://dx.doi.org/10.1362/0267257053779082
- Santos-Vijande, M. L., Sanzo-Pérez, M. J., Álvarez-Gonzáilez, L. I., & Vázquez-Casielles, R. (2005). Organizational learning and market orientation: Interface and effects on performance. *Industrial Marketing Management*, 34(3), 187-202. http://dx.doi.org/10.1016/j.indmarman.2004.08.004
- Simon, H. (1969). Sciences of the Artificial. Cambridge, MA: MIT Press. http://dx.doi.org/10.7551/mitpress/12107.001.0001
- Sinkula, J. M. (1994). Market information processing and organizational learning. *Journal of Marketing*, 58(1), 35-45. http://dx.doi.org/10.2307/1252249
- Sinkula, J. M., Baker, W., & Noordewier, T. G. (1997). A framework for market-based organizational learning: Linking values, knowledge and behavior. *Journal of the Academy of Marketing Science*, 25(Fall), 305-318. http://dx.doi.org/10.1177/0092070397254003
- Slater, S. F., & Narver, J. C. (1994). Market orientation, customer value, and superior performance. Business Horizons (March-April), 22-28. http://dx.doi.org/10.1016/0007-6813(94)90029-9
- Slater, S. F., & Narver, J. C. (1995). Market orientation and the learning organization. *Journal of Marketing*, 59(3), 63-74. http://dx.doi.org/10.2307/1252120
- Slater, S. F., & Narver, J. C. (2000). Intelligence generation and superior customer value. *Journal of the Academy* of Marketing Science 28(1), 120-127. http://dx.doi.org/10.1177/0092070300281011
- Song, X. M., & Parry, M. E. (1997). The determinants of Japanese new product successes. *Journal of Marketing Research*, 34(February), 64-76. http://dx.doi.org/10.2307/3152065
- Souder, W. E. (1987). Managing New Product Innovations. Lexington, MA: Lexington Books.
- Tsai, K. H., Huang, C. T., & Tsai, M. L. (2013). Reviews of market drivers of new product performance. *International Journal of Market Research*, 55(5),719-738.
- Weerawardena, J., Mort, G. S., Salunke, S., Knight, G., & Liesch, W. (2015). The role of the market sub-system and the socio-technical sub-system in innovation and firm performance: A dynamic capabilities approach. *Journal of the Academy of Marketing Science*, 43(2), 221-239. http://dx.doi.org/10.1007/s11747-014-0382

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