Journal of Trends Economics and Accounting Research
Vol 3, No 3, March 2023, pp. 321−325
ISSN 2745-7710 (Media Online)
Website https://journal.fkpt.org/index.php/jtear
DOI 10.47065/jtear.v3i3.247

Enhancing Innovativeness in Startups through Quality Management Practices: A Managerial Perspective

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Abstract−Startups characterized by focusing on innovativeness require suitable management approach in order to sustain in dynamic, complex and uncertain environment. Quality management practice has been world-widely implemented in any organizations, but limited studies have been conducted to examine the relationship between quality management and innovativeness in startups. A systematic literature review was conducted and resulted in 29 selected papers. This paper aims to bridge the gap by providing managerial insights on how startups can enhance their innovativeness through quality management practices. The study concluded that understanding the interrelationships between the principles of quality management practices provides support to quality culture, continuous organization learning to create value as sources to enhance innovation.

Keywords: Quality Management; Innovation; Startups

1. INTRODUCTION

Business dynamics are increasingly uncertain due to the increasing number of new competitive organizations entering the market, emerging digital technologies, business models, and evolving consumer behavior. The higher number of competitive firms provide more alternatives of products (goods and services) offered to consumers leading to less probability of consumer decision to choose (Kuksov & Villas-Boas, 2010). Business organizations strive to compete not only to sustain but also to lead in the market. In encountering dynamic changes in business environment, dynamic strategic approaches and capabilities are required to be adapted by the organizations to ensure that the business can respond appropriately to changes that may represent potential opportunity and emerging challenges (Prieto & Easterby-Smith, 2006). The strategic approach can be carried out by implementing suitable management practices.

Startup is a newly form of entrepreneurship introducing new types of products (goods and service) or processes or business model that commonly characterized with limited resources, namely human, knowledges, information, financial, and experience. Despite these limitations, startups has openness of ideas and knowledge (Oliva & Kotabe, 2018), agility or easily react to change (Oliva et al., 2019), and willingness to take risks (Linton, 2019; Weiblen & Chesbrough, 2015), proactiveness (Linton, 2019) enabling the organization to support its innovation (Oliva et al., 2019). Startups must respond to the rapid changes of technologies, market changes, uses of the newly technologies adoption by the competitors, government policy, national and/or international standard conformation. Startups must comply with various regulations and laws to avoid legal issues that can damage their reputation. Thus, startups should have optimal organization learning capability to respond those challenges, opportunities, or threats (Oliva et al., 2019). This is a challenge for managers in designing and carrying out quality management practices to support optimal organization learning through quality culture to promote innovation (Akgün, 2014; Iddris, 2016; Prajogo & Mcdermott, 2011).

Organizations have been implementing various management practices to improve organizations performances measured by profitability, productivity, innovativeness, efficiency, effectiveness, quality, and sustainability. Enhancing quality management practice is one of the business strategic approaches in increasing competitiveness and improving organization performance. Empirical studies (Corredor & Goñi, 2010; Zhang et al., 2000) have shown that implementation of quality management practices improve organizational performance. However, other findings shown that not all of the implementation of quality management practices contributes to organization performance (Leavengood et al., 2012). Thus, there are still inconsistencies among research findings regarding the relationship between quality management practice and organization performance. Zu (2009) argued that this inconsistency is due the different measures of performance used in the study, interrelationship between quality management practices and the different methods used to analyze the relationship. In addition, there is an interrelationship among quality management practices and their effects, directly and indirectly, on performance. (Tarí et al., 2007) also supported the finding that quality management practices are interrelated and affect both directly and indirectly on quality outcomes. This study also suggested that leadership plays important role to drive quality management practice. Thus, sequential effect of quality management practices is considered in understanding the relationship between quality management and performance.

Innovation has been considered as key competitive advantage in many different types of organizations, namely service organization, education, manufacture, and government. The capability to innovate is the ability to develop products, process, and/or business model that have not been offered by the organization itself or competing companies, and manage to penetrate the market because a higher value-added, from customer perspective, compared to what is offered by competitors (Pang et al., 2019). In addition, organization requires ability to generate innovation through knowledge creation, continuous learning, manage resources effectively and efficiently (Iddris, 2016). This capability is a factor that is increasingly needed by companies to maintain market position (Ibnu, 2017).

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Empirical studies have shown that quality management practices support innovation (Hoang et al., 2006; Kim et al., 2012; Leavengood et al., 2012). However, there are still limited studies discussing the implementation and the relation among management practices in startups that have distinguished natures from established organization that have run longer than startups. This paper proposes insights in managerial perspective as it assists startups on how to enhance the startups innovativeness by engaging quality management practices.

2. RESEARCH METHODS

To conduct this paper review, relevant academic databases such as Google Scholar, ScienceDirect, and DOAJ were thoroughly searched using appropriate keywords and search terms. Only peer-reviewed articles published between 2006 and 2022 were included in the search. The articles were initially screened based on their titles and abstracts to identify relevant ones, which were then evaluated in full-text format against inclusion criteria. The inclusion criteria consisted of articles that focused on enhancing innovativeness in startups through quality management practices. The review process began with the reading of significant and influential books and articles on innovation through quality management in startups. Relevant keywords, such as "quality management," "innovation," and "startups," were used to search for articles with relevant titles, abstracts, and keywords. All the publications that were included in the review were peer-reviewed. The analysis focused on identifying any supporting or contradicting relationships between quality management and innovation. Out of the articles reviewed, 20 were deemed relevant, while 7 were partially relevant, and 2 were less relevant. The author's understanding and research objectives guided the assessment of the articles' relevance. In the second stage, the full-text articles were read to ensure substantive relevance. Finally, a conceptual framework was developed based on the review of screened articles.

3. RESULST AND DISCUSSION

In achieving improved quality product (goods and service) as result of innovation, an organization continues attempting to optimize the implementation of the existing strategy by managing process of adding value (Rönnbäck et al., 2009). Values can be created through the implementation of both quality management (Rönnbäck et al., 2009) and innovation (Santos et al., 2019). Customer value-perceived concerns the trade-off between benefits gained and the sacrifices required to gain the benefits. The higher perceived-value can be obtained by increasing the benefits and efficiency. Quality management practices can enhance the benefits by conducting customer focus approach and workforce empowerment to generate ideas, identify the customer needs and translate the needs into process requirement to produce value-added product. Moreover, quality management practices allow the organization to identify value-added process through process approach and workforce empowerment to increase efficiency (Kim et al., 2012; Rönnbäck et al., 2009). Thus, quality management practices is critical for startups to ensure that they produce products that meet customer requirements, comply with regulations, and maintain a competitive edge.

Startups are characterized by their willingness to innovate in order to create something new and valuable in the market as well as take risks and challenges ranging from funding, competition, recruitment talent, marketing, regulatory compliance, and scaling (Linton, 2019). Based on the dynamic and complex nature of the business environment, the work that people do today may not be relevant in the future, as artificial intelligence may take over. Therefore, to perform the jobs of the future, individuals need to have a set of capabilities, such as generating new ideas, adapting to new challenges, committing to continuous learning, and being open-minded (Macnamara, 2018).

Innovation involves the creation of ideas, goods, and services, while quality management involves ensuring that those products meet or exceed customer expectations. By focusing on quality, companies can improve their innovation efforts by establishing a culture of quality, continuous improvement, customer focus, and risk management (Linton, 2019; Pīlēna et al., 2021).

In general, quality management practices comprise of top management support, leadership, management commitment, customer focus, supplier relationship, human resource involvement, measurement of results, product design, and process management (Antunes et al., 2017). Quality management practices consisting of top management, customer relationship, supplier relationship and workforce management indirectly effect organization performance by supporting other quality management practices consisting of quality information or factual approach in decision making, and process approach (Zu, 2009). Thus, there are direct and indirect effects of quality management practices on performance. Furthermore, quality management practices require supportive organizational culture in organizations of the company leading to enhanced organization performance (Joiner, 2007; Leavengood et al., 2012). Innovation requires the organization has optimal organization learning that can be supported by implementing quality management practice through process approach allowing the organization create value (Kim et al., 2012).

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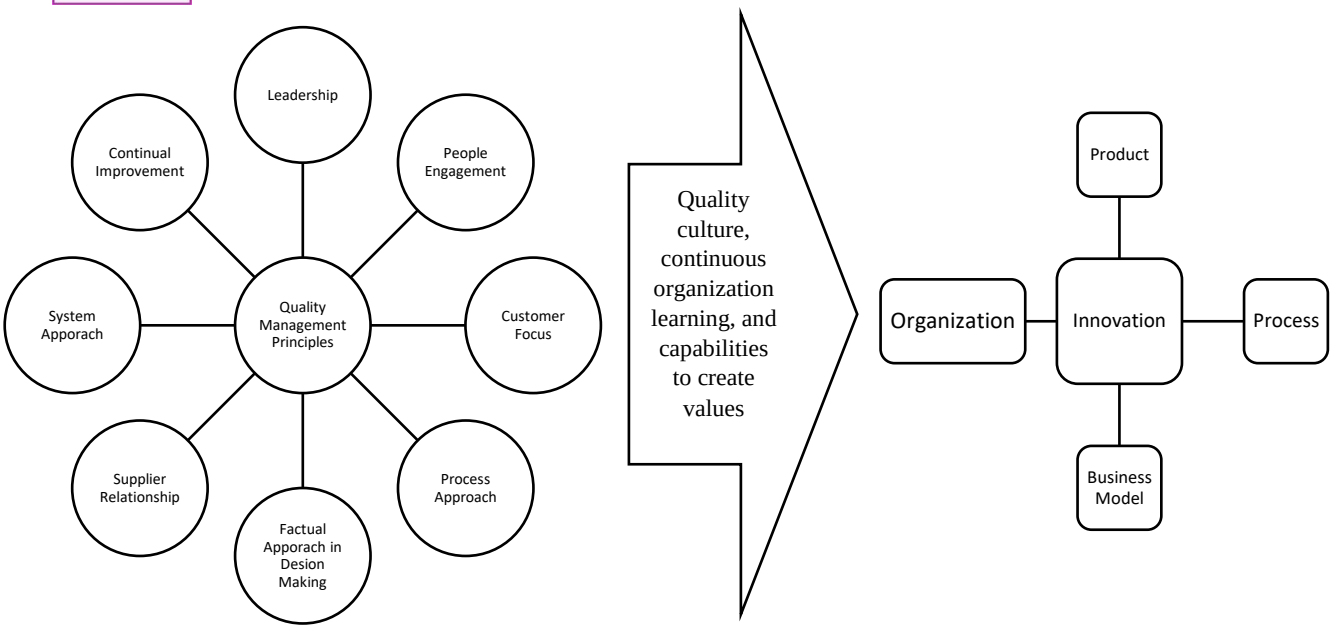

Figure 1. Conceptual Framework

Organization focusing on quality implement quality management practice that merely based on the principles of standardization, consistency, and efficiency can limit the organization in achieving innovation (Martínez-Costa & Martínez-Lorente, 2008). This study suggested that organizations need to have better holistic knowledge regarding the implementation of quality management principles and practices. Focusing on partial quality management practices may not result in innovation performance as expected. Organization also needs to have better understanding about sociotechnical integration aspect that foster environment to innovation (Martínez-Costa & Martínez-Lorente, 2008; Zu, 2009).

An innovative organization aims to enhance the exploration and development of novel value propositions, which could include new product ideas, innovative processes, or alternative methods of conducting business, such as a new business model (Prajogo & Mcdermott, 2011). This perspective of customer focus in innovation is different from that in quality in terms of dynamic customer needs resulted in directing strategic and resources allocation.

Industries need to balance standardization and innovation because they have competing objectives. Standardization aims to achieve consistency, reliability, and efficiency in production processes, while innovation seeks to create new products, services, and processes that meet evolving customer needs and respond to changing market demands (Antunes et al., 2017; Leavengood et al., 2012; Martínez-Costa & Martínez-Lorente, 2008; Santos et al., 2019).

Standardization as part of quality management practice facilitate international trade as it ensures that products meet the same quality and safety standards across different countries. It provides reliability, predictability, safety, consistent measurement, and repeatable processes. However, standardization can also hinder innovation by limiting creativity and restricting experiment (Isabel Caetano, 2017; Martínez-Costa & Martínez-Lorente, 2008; Mir et al., 2022). By focusing too much on standardization, companies can become resistant to change and fail to adapt to new market trends and customer needs. The relationship between standardization and innovation is complex and multifaceted. While standards can both facilitate and stifle innovation, finding the right balance between these two priorities is critical for success. Companies must navigate these competing priorities in order to achieve their goals and stay ahead in today's fast-paced and constantly evolving business landscape.

On the other hand, innovation can help industries to create new products and services that meet emerging customer needs and respond to changing market demands. Innovation can also improve efficiency, reduce costs, and enhance competitiveness. However, innovation can also be risky and expensive. Developing and implementing new products and processes can require significant investment in research and development, and there is always the risk that new ideas will fail to gain market acceptance.

Understanding the principles of quality and innovation is essential as it directs the way the organization works (Leavengood & Anderson, 2011). This study also suggests that quality-focused business organizations need to rethink their understanding of innovation not as merely a technology-based approach but as a holistic-approach to promote organizational performance. Thus, it is critical to manage both quality and innovation as well as providing environment to support the organization to view quality and innovation as complementary one to another (Joiner, 2007; Leavengood & Anderson, 2011).

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4. CONCLUSION

The study resulted in a literature review on the concepts of enhancing innovation in startups through quality management. This study provides insights in managerial perspective and body of knowledge based on previous empirical studies linking quality management practice and innovation to clarify findings inconsistencies and to enhance their relationships in startups that have distinguish organization characteristics. Quality management practices provides support to quality culture, optimal organization learning and creation of value, as sources of innovation, to improve the product that satisfy the customers by empowering people, focusing on customer, and managing the process and factual or information in decision making. Understanding the interrelationships between quality management practices needs to be considered as it assists the organization to manage properly at first time as the antecedents affect the next concepts, variables, or practices. Therefore, it is proposed that quality management practices need to be managed considerably to enhance the innovation performance by understanding the sequential effects, the principles and practices as a whole.

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