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Patrick J. Owuori, Dr. Michael Ngala, & Dr. Simon Obwatho

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[*1]Patrick J. Owuori, [2]Dr. Michael Ngala, Ph.D, [3]Dr. Simon Obwatho, Ph.D,

[*1]Management and Leadership, School of Management and Leadership, Management University of Africa, Kenya

[2]Lecturer, School of Business and Economics, Cooperative University of Kenya

[3]Lecturer, School of Business, Africa Nazarene University, Kenya

***Email of Corresponding Author: powuori@hotmail.com**

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Abstract

The rapid change in technologies, increasing globalization, shifting demographics and greater regulatory oversight are combining to create fundamental shifts in business environment that has led to new opportunities, challenges and risks for the managers. Businesses are in constant lookout for sources of competitive advantage, therefore intangible resources and technological capability are of great strategic potential for the firm. Studies in technological capabilities, although limited, are being carried for both developing and developed countries at national level, and at industry sector or firm level. Amongst the studies on firm level, there is a wide consensus that building technological capability is influenced by both internal and external factors to the firm. Technological capability comprises of the soft aspect (intangible), which is the skills, knowledge and experience, the hard aspect, which refers to systems, machines and equipment (tangible) and also the organizational alignment that provide the basis for competitive advantage by enabling organizations to reshape their skills and structures. Literally, technological capability is the ability of firms to undertake a set range of productive tasks aimed at improving their ability to operate specific functions and compete in specific markets and industries. Despite the importance of technological capability, there is still a scarcity of research on the integration of technological capability into the performance measurement system in order to quantify the causal impact of technological capability on the business performance. Existing methodologies, concepts, models, tools and techniques do not provide rigorous tools to allow managers to make investment decisions to enhance their technological capability whilst maximising its impact on business performance. This paper describes the development of an assessment model for assessing the impact of technological capability on the sustainability of the firm. Therefore, effective combination of appropriate operational capabilities enhances the strength of firm's technological capability.

Keywords: *Technological capability, Sustainability, Performance*

Introduction

Technological capability (TC) is the ability of the company to execute any relevant technical function, including the ability to develop new products, processes, and technological knowledge in order to obtain higher levels of organizational efficiency (Tsai, 2004). Through technological capability, the company can gain a competitive edge within the industry, particularly in a high-tech environment (Duysters & Hagedoorn, 2000; Afuah, 2002; Archibugi & Coco, 2004; Ortega, 2010), such as the chemical, electronic, or pharmaceutical industry (Schoenecker & Swanson, 2002; Tsai, 2004; Wong, 2014). Technological capability has been established in allowing firms to develop and deliver valuable product or services to customers and ensure effective customer relationships which positively enhance performance (Reichert & Zawislak, 2014; Ahmad, Othman & Lazim, 2014; Zawislak, Alves, Tello-Gamarra, Barbieux & Reichert, 2013). Technological capability contributes to the achievement of higher levels of economic performance for firms, since it allows incremental improvements from the use of new technologies (Jonker; Romijn; Szirmai, 2006). Access to a wider range of new technology options (Tatikonda & Stock, 2003) can influence the product cycle time (MontoyaWeiss & Calantone, 1994), speed of firm innovation (Coombs & Bierly III, 2006), launch and time to market of new products (Calantone & Di Benedetto, 2012), product development costs, success in developing new products (Tatikonda & Stock, 2003), and is considered an important component of knowledge and skills for the firm (Tatikonda & Stock, 2003; Renko, Carsrud & Brännback, 2009).

Technological capability is key to gaining competitive advantage (Afuah, 2002; Teece, Pisano & Schuen, 1997; Tsai, 2004), as multinational companies seek to accelerate the transfer from technology units located in developed countries to subsidiaries in developing countries (Chakrabarti & Bhaumik, 2010; Si, Liefner & Wang, 2013), for example: China (Chakrabarti & Bhaumik, 2010), Russia (Väätänen, Podmetina & Pillania, 2009), Mexico, Brazil, and India (Dechezleprêtre, Glachant & Meniere, 2009). However, depending on the diffusion capability of domestic technologies, the country of origin may have a lower rate of technology internationalization, such as in India (Dechezleprêtre, *et al*., 2009). Some reasons that can justify advancing technological capability are: the need for developing and maintaining internal capabilities, changes in technologies underlying the control system, research and development (R&D), closer relations with universities, research institutes, and specialized suppliers (Terawatanavong, Whitwell, Widing, & O'Cass, 2011; Wang & Zhou, 2013), development of new technology components, long-term system integration capabilities and firm internationalization (Kyläheiko, Jantunen, ,Puumalainen, Saarenketo, , & Tuppura, 2011).

Technological capability is a positive predictor of product innovation (Renko, *et al*., 2009); however, high levels of technological capability may prevent the product from generating innovation (Zhou & Wu, 2010). To minimize this impact, investors should look for markets that demonstrate technological expansion potential (the biotech industry, for example) and market innovation (Renko, Carsrud & Brännback, 2009) through firm internationalization (Garcia, Avella & Fernandez, 2012). Intangible resources and technological capability are of great strategic potential for the firm (GarcíaMuiña & Navas-Lopez, 2007). There is a differentiation in relation to competitors, should seek the transfer of knowledge, intangible asset and difficult to spread to be obtained tacitly (Grant, 1996). For this reason, technological knowledge is presented asymmetrically in organizations (Lall, 1992), being directly associated with the absorption capacity of its employees (Zahra & George, 2002; García, Avella & Fernández, 2012; Tzokas,

Kim, Akbar & Al-Dajani, 2015) and level of investment in R&D (Coombs & Bierly III, 2006). Capacity absorption can be considered a facilitator or barrier to obtaining technological capability (Cohen & Levinthal, 1989), because it is directly linked to the speed of innovation of the firm (Lall, 1992). Innovation speed indicates how quickly the company uses new technologies (Coombs & Bierly III, 2006) and is considered crucial to internationalization (formation of strategic alliances, joint ventures, mergers and acquisitions, for example) (Haeussler, Patzelt & Zahra, 2012; García, *et al*., 2012) and launching innovative products (Hsieh, Tsai & Hultink, 2006). Technological capability is influenced by internal factors (planning and control, market orientation, training, investment in R&D, manual labor), external factors (government support, purchasing or licensing technology from other companies, and forming strategic alliances to purchase new technologies), and the mode of technology transfer (Madanmohan, Kumar & Kumar, 2004) must therefore be managed effectively (Tatikonda & Stock, 2003).

Technological Capability

Technological capability has been described as the firm's ability to design and develop new process, product and upgrade knowledge and skills about the physical environment in unique way, and transforming the knowledge into instructions and designs for efficient creation of desired performance (Wang, Lo, Zhang, & Xue, 2006). Technological capability entails not only technical mastery capability, but also the capacity to expand and deploy the firm's core capabilities, and effectively combine the different streams of technologies and mobilize technological resources throughout the firms (Zawislak, Alves, Tello-Gamarra, Barbieux, & Reichert, 2012). Furthermore, technological capability comprises the body of practical and theoretical knowledge, procedures, experience, methods and physical equipment and devices (Ahmad, *et al*., 2014). Technological capability represents a firm's superior and heterogeneous technical resources which meticulously related to the design technologies, product technologies, information and process technologies, sourcing and integration of external knowledge (Bergek, Tell, Berggren, & Watson, 2008). These components of technological capability are responsible for significant positive variation in firm's performance (Bergek *et al*., 2008).

Technological capability enables firm to identify, acquire and apply new external knowledge to develop operational competencies, which leads to the attainment of superior performance. Through effective technological capability, a firm creates and delivers new products and services in a better and efficient way that best satisfies the customer needs, thus enhancing the overall success of firm's new product development and performance (Wang *et al.*, 2006). Technological capability is crucial to firm internationalization, allowing the formation of joint ventures and strategic alliances, mergers and acquisitions (Haeussler *et al*., 2012; García *et al*., 2012), increased productivity (García *et al*., 2012), a level of international competition, entry of foreign investors, increasing exports, launching new products (Hsieh & Tsai, 2007), and profitability. Firm internationalization can be understood as an antecedent variable of technological capability (Tseng & Chen, 2014). A high level of technological capability can prevent product innovation due to the U-shaped (Zhou & Wu, 2010) or bell-shaped relationship (Wu, 2014) that is influenced by the type of innovation (incremental or radical) used by a company (Zhou & Wu, 2010). This curve is nothing more than the trade-off relationship between costs and benefits, which can result in the decreased success of a new product (Homburg & Kuehnl, 2014; Gross, 2014). Thus, a high level of technological capability can inhibit the generation of radical innovation, especially in the short term, as it (Zhou & Wu, 2010) increases globally New Product Development (NPD), costs (Gross, 2014), and increases in investment risk (Duysters, Zhang & Filippov, 2011).

Technological capability is a knowledge-based comprehensive set of organizational capabilities that enables a firm to search, recognize, organize, apply and commercialize innovative products and services (Chang *et al*., 2012).Through technological capabilities, firms are able to successfully adopt technology that enables them to implement new production techniques and in turn solve problems arising from the use of outdated production systems (Chen, Tang, Jin, Xie, & Li, 2014; Shin, Taylor & Seo, 2012). Technological capability often leverages external resources, thereby reducing the risk inherent in breakthrough innovations (Chen *et al*., 2014; Teece, 2007). As part of the organizational capabilities of a firm (Barney, 2001), technological capability also enables a firm to use resources to generate competitive advantage. Technological capability capabilities are considered a dynamic capability held by a firm to better adapt to technological opportunities (Teece, 2007) and hence are positively linked to organizational effectiveness.

Technological capability works as a set of functional abilities that reflects an organization's performance through various technological activities and whose ultimate purpose is firm-level value management by developing inimitable organizational abilities (Voudouris, Lioukas, Iatrelli, & Caloghirou, 2012). Equally important, Wang, Lo, Zhang and Xue (2006) suggested that TC aids to escalate a firm's capacity to recognize and apply new exterior knowledge to continue the competence enlargement, which may result in superior performance. Technological capability reduces the inherent risk associated with breakthrough innovations (Teece, 2007) and facilitates the introduction of new or improved products and services to the market (Chang, Chang, Chi, Chen, & Deng, 2012). Technological capability exists within the context of additional organizational capabilities which help organizations and the individuals within them, to respond better when faced with challenges. Technological capability is represented by the capacity to generate, implement and manage technological change.

Sustainability

Sustainability is a multidimensional phenomenon (Albertini, 2013). It is often merged with environmental performance and economic performance. It is often described as a measure of a firm's capability to accomplish its mission and serve its stockholders over a longer period and to have an acknowledged and quantifiable influence. Sustainability, when successfully achieved, can lead to more extensive sources of funding and configure a firm capacity to provide value in the long run (Carsrud & Brännback, 2010). In short, a firm that relies on sustainability leads to a greater emphasis on long-term survival. Firms with successfully achieved sustainability can achieve their long-term goal (Gundry, Kickul, Iakovleva, & Carsrud, 2014) and can better perform in a resource-constrained environment (Carsrud & Brännback, 2010). Sustainability is also a state in which an organization or a society exhibits a relation to economic, environmental and social aspects (Munck, Bansi, Dias & Cella-de-Oliveira, 2013). Therefore, usually when it is said that an organization or a society is sustainable, it is meant that it holds a certain state of sustainability. As such, sustainable is what can be maintained, in other words, nothing is stagnant, that is why sustainability must be viewed in levels (Van Marrewijk & Werre, 2003). This way, the correct would be to say that a given organization or society holds a certain level of sustainability, rather than what is and is no longer sustainable. Sustainability is about expanding the financial bottom line into a triple bottom line, which includes environmental and social aspects of corporate performance (Albertini, 2013). The Triple Bottom Line offers guidelines on how organizations approach sustainability. This way, the Triple Bottom Line, being a model conceived for the organizational sphere and widely accepted by various authors (Callado, 2010; Hoff, 2008; Dyllick & Hockerts, 2002; Savitz & Weber, 2006), including empirical works in the area, was chosen as the guide for this paper. Other authors do not

cite the Triple Bottom Line (TBL) but segment the organizational sustainability (OS) in similar pillars (Passet, 1996; Sachs, 1990; Azapagic, 2003). The term TBL has also been referred to as the practical framework of sustainability (Rogers & Hudson, 2011). Targeted toward corporations, the TBL agenda puts a consistent and balanced focus on the economic, social, and environmental value provided by the organizations.

The economic line of TBL framework refers to the impact of the organization's business practices on the economic system (Elkington & Rowlands, 1999). The economic line pertains to the capability of the economy as one of the subsystems of sustainability to survive and evolve into the future in order to support future generations (Spangenberg, 2005). The social line of TBL refers to conducting beneficial and fair business practices to the labor, human capital, and to the community (Elkington & Rowlands, 1999). The idea is that these practices provide value to the society and "give back" to the community. These practices may include fair wages and providing health care coverage. Aside from the moral aspect of being "good" to the society, disregarding social responsibility can affect the performance and sustainability of the business. Social performance focuses on the interaction between the community and the organization and addresses issues related to community involvement, employee relations, and fair wages (Goel, 2010). The environmental line of TBL refers to engaging in practices that do not compromise the environmental resources for future generations. It pertains to the efficient use of energy recourses, reducing greenhouse gas emissions, and minimizing the ecological footprint, etc. (Goel, 2010). Like the social aspect of TBL, environmental initiatives impact the business sustainability of the organizations. Sustainability is thus built on the three pillars of the Triple Bottom Line. From the constructs of various authors (Elkington & Rowlands, 1999; Munck, Munck, & Borim-de-Souza, 2011; Savitz, 2013) aiming to integrate the three pillars, these are viewed as three sustainabilities, which, if properly developed, are capable of providing a satisfactory state of OS. Thus, the three sustainabilities are called: Economic Organizational Sustainability (EcOS), Environmental Organizational Sustainability (EnOS), and Social Organizational Sustainability (SOS).

Hence, sustainability should not be restricted to only practices to gain environmental objectives but it can also facilitate other advantages (e.g., gaining long-term survival and profitability) in a turbulent market when successfully achieved (Grewatsch, & Kleindienst, 2017). In this study, sustainability is considered an essential practice of a firm that provides environmental, social and economic benefits to configure the firms' sustainable competitive position. For instance, Nidumolu, Prahalad and Rangaswami (2009) described that sustainable development is the only way available for enterprises' growth, decreasing production costs and generating additional revenues from novel offerings or business expansion. Sustainability scholars have utilized different theoretical frameworks such as institutional theory, among others, to understand why and how sustainability initiatives emerge (Delmas, 2002; Hoffman, 2001) and how such efforts lead to different environmental, financial and market performance outcomes at the organizational level (Bansal, 2005; Bansal & Roth, 2000; Chatterji & Toffel, 2010; Flammer, 2013; Klassen & McLaughlin, 1996; Russo & Harrison, 2005). Despite the evolution of the sustainability construct, the essence of the idea remained the same; it was still an issue of needs weighed against limitations. Continuing to emerge from the spaceship earth idea and others like sustainable society (Santos & Filho, 2005), the authors pointed out the consensus of these ideas with respect to society and the need for it to be in balance with its surroundings. Further, sustainability was referred to as a fundamental and complex construct that mandates the balance of several factors for the planet to continually exist (Aras & Crowther, 2009). Yet, in its simplest form, sustainability refers to a value and a belief of the enhancement and preservation of the natural environment (Shrivastava,

1995). Originated decades ago and through the significant momentum gained with the Brundtland Report (1987), the construct continued to gain attention becoming one of the most leading issues facing the world due to continuous pressure from the society and the stakeholders (Stefan & Paul, 2008; Epstein, 2008; Lippman, 2010). Several definitions of sustainability were found in the literature; although they differed slightly based on the source, the core (with respect to the society and the environment) remained the same.

Technological Capability and Sustainability

Oruwari, Jev, and Owei (2002) define technological capability as the capability needed to acquire, assimilate, use, adapt, change or create technology. Such capability enables a firm to assimilate, use, adapt, and change existing technologies. It also enables a firm to create new technologies and to develop new products and processes in response to the changing economic environment. Of all the factors contributing to achieving better competitive position, technological developments play the most prominent role (Khalaji, 2014). Academic research on technology capability of the firm has led to a better understanding of the technical change process. To continue operating in a chosen environment, the firm must produce some different solution, which is recognized as such by the consumer. Technological learning is increasingly based on a combination of internal and external learning: internal learning comes about by the internal development of new products and through internal Research and Development (R&D) processes, external learning thrives on technology acquired through technology alliances. According to Kotha and Swamidass (1998) investments are made each year in advanced manufacturing technology because practitioners perceive a number of benefits attributed directly to their use namely reduced cycle-time, market share growth, progress towards zero defects, return on investment and focused production.

Firms invest heavily in the building of technological capability that offers the skills and abilities to deploy and utilize various resources and know-how. According to Afuah (2002) and Zhou and Wu (2010) when a firm builds its technological capability, it invests substantial resources in research and development (R&D), which involves the discovery of new products, the accumulation of knowledge stores, and the training of technical personnel. A firm's technological capability is developed over time and accumulated through its past experience. It is widely recognized in the theoretical literature that firms are required to use both internal and external sources of innovation in order to achieve competitive advantage. Cabral (2010) suggests that the sustainability of competitive advantage will depend on the extent to which the firm is able to develop capabilities for innovation. Sustainability of innovations reflects not only the economic aspect, but also the social and environmental concerns embedded on innovation, whilst innovation capability indicates the sources of knowledge to achieve that sustainability.

Alizadeh (2012) puts that technological capability is implied in four categories; hardware and facilities, codified knowledge and information, human tacit knowledge and skills, and organization culture, routine and processes. TC is accumulated and embodied in skills, knowledge, experience and organizational systems (Cortes de Castro & Figuereido, 2005; Dutrénit, 2004; Figueiredo, 2002, 2008; Jonker, Romijn, & Szirmai, 2006; Kumar, Kumar & de Grosbois, 2008; Romijn & Albaradejo, 2002). The accumulation of TC is described by Dutrénit (2004) as the learning processes involved in the gradual building up of a minimum base of technological knowledge to be able to carry out innovative activities. The nature of the technology strategy, the processes of knowledge management inside firms and the characteristics of the national innovation systems

determine the level of TC development in the firm (Kim, 1997; Lall, 2000; Lall & Pietrobelli, 2002).

In a much broader sense, TC development can be conceptualized in different levels for instance at the acquisitive, operative, adaptive, innovative, supportive and marketing level (Lall, 1992; Bell & Pavitt, 1995; Panda & Ramanathan, 1996; Guifu & Hongjia, 2009). From the perspective of these authors, TC can be interpreted as basic or acquisition level when for instance, a firm has the ability to acquire equipment, blueprints and technical knowledge, intermediate or operative level and when the firm has the ability to operate and to manage these elements. The advanced level is achieved when the firm has the ability to improve the possessed technology, and to be able to develop new products or processes. Technological capability has been described as the totality of organization's abilities directed at obtaining technical knowledge to enhance business performance (Yahya Al-Ansari, Altalib & Sardoh, 2013). The significance of technological capability in influencing the success of business firm in rapidly changing business environment has been extensively recognized practically and in academic literatures (Zahra, 1996), hence businesses firms use technologies to improve a perpetual competitive position by introducing new products or exploiting new processes (Utterback, 1994). Consequently, the intense effects of technology on firms' activities has universally manifested in almost all area of economic activities (Zahra, 1996).

Technological capability has been considered as a critical elements that improve firm's performance (Zhou, Yim & Tse, 2005), therefore, most successful business firms around the globe depends on their technological capability to effectively execute their routine business processes and activities (Ajonbadi, 2015). Generally, businesses engage in developing technological capability to improve product, enhance production, reduce production cost, improve turnover and profit as well as international competitiveness (Adelowo, Ilori, Siyanbola & Oluwale, 2015). Therefore, the position of firm's competitive advantage is determined by its boldness toward technological activities (Hitt & Hoskisson, 1990). Hence, most innovative firms are faithful to investment in research and development and are also proactively aggressive to obtain new and discover new technologies in the course of developing new products that better meets the customer expectations than competitors (Zhou *et al*., 2005, Hitt, Hoskisson, & Ireland, 1990). Technological capability enables firms create differentiation in responding to changing marketing environment through efficient innovation process (Lestari, Thoyib, Zain & Santoso, 2013).

Moderating Effect of Technological Capability on Sustainability

Several academic papers investigated the moderating effect of technological capability (Ortega, 2010; García *et al*., 2012; Haeussler *et al.*, 2012; Renko, *et al*., 2009; Wu, 2014; Hsu, Tsai, Hsieh, & Wang, 2014). Some studies show the technological capability variable with moderating effects (Jabar, Soosay & Santa, 2011), direct effects (Hsieh & Tsai, 2007; Tzokas *et al*., 2015), or both (Renko, *et al*., 2009). García *et al*. (2012) examined the moderating effect of companies with technological capability on the relationship between exporters and productivity. The research results infer that exporters have a greater propensity to learn than firms holding less technological capability. Ortega (2010) examined the variable 'technological capability', in relation to the formation of competitive strategies and firm performance. The study found that technological capability improves the relationship between quality, cost orientation, and performance. Haeussler *et al*. (2012) studied the role of strategic alliances in generating partnerships of higher value. The research results indicate that companies with high technological capability made strategic alliances

in order to gain knowledge and resources. However, companies with low international experience and limited resources are more vulnerable to opportunistic behavior of their partners.

Hsu *et al*. (2014) investigated the moderating effect of technological capability in relation to the performance of new products and strategic direction. The study results suggest that technological capability strengthens the guidance relationship of the performance of the market, besides affecting financial performance of the company. Wu (2014) examined the relationship between cooperation with competitors and product innovation with the moderating role of technological capability and strategic alliance with universities and research institutes. The study results show that cooperation with competitors has an inverted U-shaped relationship with innovation of successful products. Strong technological capability and collaboration with universities and research institutes has a moderate, negative relationship with the innovation of successful products. Excess cooperation with competitors negatively affects product innovation performance as a result of opportunistic behavior of competitors (Wu, 2014).

TC is recognized to have a direct effect on the new product development (NPD) and overall business performance (Wang, Lo, Zhang, & Xue, 2006). Both performances are also indirectly affected when the customer value participates as mediator. Customer value on its own has an important impact on NPD performance and overall business performance. As such, it mediates the impact on TC. Nonetheless, the finding on the impact of TC on learning orientation and environmental turbulence is provisional, while the market turbulence has a negative moderating in the correlation between customer value and TC as well as the correlation between new product development performance and TC. There is another research that examined TC and its correlation with operational performance in manufacturing cost and quality of final product. The results indicated that TC, considered as technology absorption capability, was found not directly correlated to the performances (Khan & Haleem, 2008). Guifu and Hongjia (2009) established three TC levels; technological shifting capability, technological acquiring capability, and technological operating capability on the impact on innovation performance. The findings revealed that technological shifting capability is significantly positively associated with product upgrading. Neither technological acquiring capability nor technological operating capability is notably related with product upgrading. Technological shifting capability and technological operating capability significantly pose a positive relation with process upgrading but not for technological acquiring capability. The magnitudes and effects of capabilities to firm transformation might be more complicated than anticipated, explaining the existence of non-related interactions between some particular TCs towards product and process upgrading. Overall, previous studies in the field of technological capability have proved the significant roles played by technological capability on various organizations performance measures even though the results happen to be mixed. Developing and improving technological capability of an organization is a long-term commitment and therefore its implementation plays important roles to ensure companies survival in the market for future undertakings. As a conclusion, technological capability is labeled as a crucial determinant together with other firm capabilities that promote firm performance advances.

Conclusion

Developing and improving TC in an organization is a long-term commitment. The importance of technology strategy assessment itself had motivated scholars and practitioners to researched and assessed the theoretical and practicality of TC since decades ago until recent. The studies and assessment of TC have contributed to some point valuable intangible resources to any

organization. Nevertheless, it must take the effort and commitment of every individual involves in the organization to realize the success. TC plays a very significant role that helps an organization to endure the dynamically changing market turbulence for a long period, from the beginning of new ventures until to the stage of firms with corporate social responsibility. For that reason, organizations ought to start evaluating their level of TC. For companies that have not yet been implementing any, they must consider having one now before any unwanted winding-up happened, while, companies, which are already implemented some TCs, they must upgrade the current TC to a higher level for them to improve the companies' performance and satisfy customer needs.

Overall, most studies in TCs literatures have shown a momentous role played by TC on various organization performances, especially in terms of financially; accounting and market-based measures. As a result, TC is being labeled as a crucial determinant that promotes competitive advantage through firm performance growth. Nevertheless, studies on TC reflected the well-known operational performance non-financially; cost, quality, delivery, flexibility, and innovation are still scarce. Future research on TC which thoroughly focuses on sustainability measures are worthwhile since it will exclusively verify the operational part of firm performance. The basic understanding of TC and its impact on performance, organizations may develop suitable strategies to escalate the performance and, hopefully, improve competitiveness as well. Their commitment on TC will determine a long-term victory for the company.

Previous studies indicate theoretical evidence for the moderating effect of technological capacity, as argued by Ortega (2010), García, *et al*. (2012), Haeussler *et al*. (2012), Renko *et al*. (2009), Wu (2014), and Hsu *et al.* (2014). The studies show technological capability as a moderating variable (Ortega, 2010; García *et al*. 2012; Haeussler *et al*. 2012; Gross, 2014; Renko *et al*., 2009; Wu, 2014; Hsu *et al*., 2014). However, despite the growing literature on sustainability, very few studies have reviewed the technological capability-sustainability link, making this paper relevant to academia. This limited existing work primarily focuses on assessing the relationship between the technological capability and sustainability practices in organizations. Furthermore, the focus of this paper is on incorporating insights from technological capability to understand the drivers and determinants that may have an impact on the levels of sustainability initiatives undertaken by organizations.

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