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Firm Innovativeness, Quality Orientation and Firm Performance: A Review In Context Of Service SMEs

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ABSTRACT

A review of literature on Quality-Orientation (QO) and Firm Innovativeness (FI) on Firm Performance (FP), It identifies the importance of usage of each principal of Quality Orientations and Firm innovativeness by usage of emerging technology for consistent firm performance. We also review the generalizability of Quality Management Principles (QMP) and Innovativeness as mediating and moderating constructs on Firm Performance. This study identifies the gaps in firm innovativeness by reviewing Intent to innovate and usage of emerging technologies in a Firm. We also reflect the generalizability of innovativeness and usage of emerging technology tools, Artificial Intelligence, Machine Learnings, and Robotics process automation as effective variables on firm performance. Future implications on Firm Innovativeness on firm performance for further research.

Keywords: Quality Orientations, Firm Innovativeness, Firm Performance

Introduction

Entrepreneurs of SMEs are confronted with various problems impacting their performance (Korsakiene & Diskiene 2015). Process variation, moving demands of customers. Innovativeness is being analyzed have positive relation result of a firm and its customer expectations (Lumpkin and Dess 1996). Performance of a firm is also dependent on its orientation towards Quality (Miles, Russell, Arnold (1995). Research advise that Quality Orientation (QO) is defined as deployment of Quality Management Principles like, organizational commitment to maximize long term value, Teamwork, Customer Value and Focus, Innovative performance, Continuous improvement, Top management leadership, Employee management, Customer focus, Supplier management, Quality data and reporting, Process management, Innovative performance, Innovation leads tosuccess for a firm, (Davis, Bell, Payne & Kreiser, 2010, Mohr-Jackson, 1996; Kaynak, 2003). (Miles, Russell, Arnold (1995), Hoegl, 2005) Cagri Bulut (2017) (Elshaer & Augustyn 2016). (Abd-Elwahed 2018),.), Quality Orientation and Innovativeness creates a better value for customers and ultimately superior performance, it must integrate into the organization's business philosophy (Miles, Russell & Arnold 1995). In an effort to accomplish good performance, firms should embrace both innovation and quality principles (Arshad, Wang, Su, (2016).

This study also observed that there is an Innovation tools dimension which influences firm performance (Wang, & Su, 2016). The assessment of the influence of TQM on innovative performance is essential and an effective tool for figuring out innovative performance of the firm (Prajogo & Sohal, 2006). Emerging technologies like Robotic Process Automation, Artificial Intelligence (AI) and Analytics to predict exactly what customers want, competitors will inevitably figure out how it works. If firms do not utilize it, will probably go out of business given its superiority to predict customers' wants (Makridakis 2017). Firm's Innovativeness, intent to innovate and development accentuates new ideas and the propensity for change within a firm.

Firms that have greater innovation-related needs and abilities are expected to exhibit a greater amount of innovative activity (Robert G. Fichman 2004). Guidance to managers on the question of "*whether, when, andhow to innovate*" is the key for better performance (Swanson and Ramiller, 2004). There is dearth of theory explaining how the technology unit of a firm could contribute to the firm's performance (Tarafdar & Tanriverdi 2018).

Firm Performance is impacted by Quality Orientation of a firm. Firm performance is confined to quality management and Innovative capacity (Atkinson et al., 1997). The competitive requirements for Firm

Performance are the usage of Emerging Technologies for Innovations as: bigdata, algorithmic decisions and operational excellence (Makridakis 2017). Emerging technologies usage over and above quality orientation will bring revolutionary changes to the business environment (Wang, Su, (2016). The successful firms during the AI revolution will oversee evaluating and exploiting AI technologies to gain the most out of their implementation in all aspects of the firm.

Objective

Prior research reflects that Quality Orientation (QO) is defined as organizations proclivity towards QM Principles. Details of tools to be used for each QM principle of QO is not sufficiently studied, there is an opportunity to add to the body of knowledge on this area. If the Tools have been studied, they have not been studied with respect to Quality Orientation for Firm's Performance (Mehra, Joyal, Rhee 2011; Clegg 2009; Abd-Elwahed 2018). Very less or limited study has been done to compare all dimensions of QM Tools and Techniques effectiveness on Firm Performance. Quality and Innovation go hand in hand for better firm performance (Wang, Su, (2016).

SMEs contributes to economic and social transformation of a nations and it is known that leveraging information technology can facilitate their continued growth and development (QECD, 2004). Previous researchers reflect limited attention to Entrepreneurial Orientation, Market Orientation and TQM in the SMEs; a lot of opportunities still abound to extend theoretically and empirically the literature on EO, MO, TQM and SMEs performance (Gamal, Haim, Abdullahi, Hassan 2017). QO to Firm Performance has been studied in length, however QO from QM tools and Innovativeness on firm performance is insufficiently studies. To be relevant in the competitive market effect of Innovativeness along with Quality orientation needs to be Firm Performance.

Literature Review

What is Quality Orientation?

The quality orientation (QO) is a construct that describes an organizational philosophical commitment for developing and maintaining a competitive advantage, based upon a quality focus. (Miles, Russell, Arnold 1995). Quality Orientation (QO) is also defined as organization wide proclivity on Continuous Improvement (CI), Teamwork, Customer Value (Mohr-Jackson, 1996; Kaynak, 2003). Total quality orientation is the organization-wide commitment to continuous improvement for delivery of customer-perceived quality and ultimately customer satisfaction (Mohr-Jackson 1998). QM literature does not provide accepted definition of QO (Heine, Schmitt, Beaujean (2016). The culture driven in a firm is the construct of Quality Orientation.

Why Quality Orientation?

It is imperative to study what other attributes constitutes Quality Orientation and within variables of Continuous Improvement (CI), Teamwork, Customer Value. In-turn how does it affect an organization performance. Post research of most cited and papers from year 1995 to 2019, different dimensions have been studied by researchers on QO. It is imperative to adopt QO constructs and re look at the relevance of QO in service SMEs'.

Attributes of quality orientation are defined as customer focus (Miles, Russell, Arnold (1995), (Malhotra, Lee & Usley 2012) continuous improvement (Cagri Bulut (2017); Malhotra, Lee, Usley 2012); Heine, Schmitt & Beaujean (2016) ; Miles, Russell & Arnold (1995); Kaynak (2003). team work (Cagri Bulut 2017), Minimizing Process Variation, Focus on Quality Improvement, TQM Culture, top management commitment (Mokhtar, Sanuri-Mohd & Zien 2010), process quality management, quality design of a new product performance (Mokhtar, Sanuri-Mohd & Zien 2010), Reducing variation in operational processes and routines , commitment to continuous improvement, reduction cost objectives, reduction in cost measures, internal customer focus, external customer focus, continuous improvement (CI), orientation system thinking perspectives (Heine, Schmitt & Beaujean 2016), being "*data driven organization, value"* (Achrol, R.s 1991), Heine, Schmitt, Beaujean (2016), continuous improvement and innovation (Cravens, Hills & Woodraff 1987), being proactive(Criehton 1992), innovative performance of an organization is main component of QO (Cagri Bulut 2017).

At what stage of process cycle Quality and Continuous Improvement (CI) tools are used in a firm. Which tool to be used and how is an area for future study. There is no explicit reference available on orientation of an organization on Continuous Improvement tools under Quality Management.

Constructs of Quality-Orientation (QO):

QO constructs as studied in prior research are customer Focus, continuous Improvement, teamwork (Cagri Bulut 2017), QO is to minimize variation in organizations processes (Sethi and Sethi 2009), focus on quality improvement including TQM is termed as Quality Orientation (Sethi & Sethi 2009), new product

performance (Mokhtar, Sanuri Mohd & Zien 2010), top management commitment, process quality management, quality design with new product performance. Reducing variation in operational processes and routines (Malhotra, Lee, Uslay 2012), "*Organization wide commitment to continuous Improvement in delivery of customer-Perceived quality*" (Deming 2000, Oliver 2009), "*reduction cost objectives considered as direct way to influence profitability"* (Raju abd-Lonial 2002) and reduction in cost measures (Macedi, Liao, Pinho 2017). QO constructs are also defined as, having internal customer focus and external customer focus, continuous improvement orientation system thinking perspectives and being a data driven organization (Hein, Schmitt & Beaujean 2016). Quality Orientation refers to the organizational wide proclivity on Continuous Improvement and coordinated teamwork and considers the Customers as the ultimate value of the organization (Mohr- Jackson, 1996; Kaynak, 2003).

One new variable of QO, quality tools was found and investigated by an author, was quality tools applied on new product performance is important for the firm (Mokhtar, Sany Sanuri Mohd, Zien 2010). Interestingly reduction in variations of the process is also studied "core thrust of Quality Orientation is on reducing variation in organizational processes and routines" (PK Ng, Goh, Eze 2009). QO constructs are also called critical success factors by Kee-Hung Lai (2003). These are 1) people and customer management 2) supplier partnership, 3) Communication of improvement information 4) Customer satisfaction orientation 5) External interface management, 6) Strategic quality management, 7) Teamwork structures for improvement, 8) Operational quality planning, 9) Quality improvement measurement systems, 10) Corporate quality culture. and business performance: measures and questions:

Quality Orientation as emerging philosophy (Miles, Russell, Arnold 1995): defines attributes as Customer Satisfaction, Employee Empowerment, Quality Focus, Procedural Improvement, High level product, Low variability in production function. Measures if Quality are: Return on Quality (Kotler 1994), Customer satisfaction, Long term Profits, Financial ratios.

Impact on firm can be looked at from these constructs of QO, 1) Motivation performance 2) Market performance, 3) Productivity performance, 4) Societal performance. It is also studied by authors that medicaltechnology investment alone does not contribute to a significant improvement in hospital service quality (L.

X. Li. (1997). QO is integral part of Business Success (Miles, Russell, Arnold (1995).

Prior research indicates that the difference between the customer expectation and customer experience is vital for customer satisfaction and in turn firm Performance. (Parasuraman et all 2000). Quality Orientation can lead to a good process output which will result in customer satisfaction. Answer to the above research question will help us empirically validate the above argument and understand the linkages between Quality Orientation and firm performance. It will also help us reiterate the importance of having a Quality Orientation in progressive enterprises for them to succeed in a competitive market environment.

Firm Innovativeness

Impact of cognitive technologies are not studied in length for innovation (Sommer, Haug 2011). There are three stages for innovativeness, basic research - applied research – development for a firm (Godin 2006). Innovation is as five stages by Myers and Marquis (1969) as Recognition (of both technical feasibility and demand), Idea formulation, Problem solving, Solution, and utilization and diffusion. Maturity of these stages are defined and studied as Intent of a firm.

Intent to Innovate

Learning orientation is conceptualized as a second-order construct. Its effect on firm innovativeness (Calantonea, Cavusgila, & Zhaob 2002), which in turn affects firm performance, is examined by researchers. Intent to innovate is dependent on leadership roles to set innovation goals and encourage employees participate in innovation initiatives from bottom to up in the firm hierarchy and approve /disapprove innovation ideas (Spender & Kessler (1995) by the employees. Innovation is recognized as one of the most important determinants of firm performance (Sethibe & Steyn, 2016), dominant paradigm may be reaching the point of diminishing returns as a framework for supporting ground-breaking research and urges researchers to adopt a more innovative approach to the study of IT innovation itself (Robert G. Fichman 2004).

Emerging Technologies usage for Innovation

Research suggests that, to accomplish good performance, firms should embrace both innovation and quality (Arshad, Wang, Su, (2016), and emerging technology usage. While there are numerous studies explaining theimpact of innovation on creating customer value and firm performance (Richard L. Daft 1978; Scott 1994; Godin 2006; Kaiser et al 2007; Bulut 2017), very limited research exists probing the role of Emerging Technology usage for Innovation in explaining the direct impact of Tools and Techniques for firm performance. Firm innovativeness encompasses processes which lead to the establishment or adoption of new services and emerging technological models (Fichman 2004). Innovative performance has been employed in many technical (Cagri Bulut 2017) and scientific research studies focusing on two major areas: propensity to Innovate and usage of right emerging technology in right times for firm performance factors (Macedo, Liao, Pinho (2017).

The ultimate goal of innovation research is to provide guidance to managers on the question of "whether, when, and how to innovate" (Swanson and Ramiller, 2004) and implications to performance improvements. On the contrary, it is also studied by researchers, that innovative technology investment alone does not contribute to a significant improvement in service quality (L. X. Li. 1997). More research has directed on implementation of a new business practices, in a firm is dependent on the work force usage of knowledge, workflows, and Innovative ideas for improving process efficiencies and better quality of goods or services (Swanson and Ramiller, 2004).
It is also studied that Innovation and quality management goes hand in hand for better performance (Makridakis (2017), some studies reflect that there will be no special benefit as the advanced innovation would simply become a competitive requirement for staying in the race. Emerging technologies like big data (Schonberger & Cukier 2014), offers the opportunity to find what customers is expecting and usage of the same for decision makers. The challenge is that both the data and the techniques to analyze them are available to the practitioners, everyone who needs it, turning this data and analysis to meaningful recommendation for competitive advantage is important (NS Jankel 2015). Jankel is therefore probably right, stating that "computers will never create disruptive innovations" nor be able to provide. Firms need to innovate to disrupt the way of working (Makridakis (2017) to be competitive in the market and by improving firm performance. There is dearth of theory explaining how the emerging technology unit of a firm could contribute to the firm's development of innovations in ways to create customer value and improve firm performance (Tarafdar & Tanriverdi 2018). Those who will be evaluating emerging technologies will be ahead in the market capitalization (Makridakis 2017). Artificial Intelligent technologies to gain the most a successful firms out of their implementation in all aspects of the firm (Makridakis 2017; Barrat 2013).

In this era of digitization, rising customer demands and expectations are being experienced. Hence it is essential to be relevant in the technology savvy market, where customer demands innovative service offerings. Augmentation of emerging technology for innovative use for Quality Management tools & techniques, can foster faster response to the market demands and can help firms to achieve customer delight and in turn better firm performance.

Firm Performance

Firm performance has been defined by different research with different parameters. Return on Quality, Customer Satisfaction, Long term Profits, Financial rations (Miles, Russell, Arnold 1995). Superior firm performance (Malhotra (2012); Kohli and Jaworski (1990); Pande et al. (2000), (Deming 2000); Taguchi et al. (2004), Competitive advantage (Pande et al. (2000); Taguchi and Clausing (1990). Firms' long run success comes from creating shared value of services that advance the competitiveness of the firm, and simultaneously advance the economic and social conditions of the communities (Porter and Kramer 2011); Malhotra 2012).

Atalay, Anafarta & Sarvan (2013), stated firm performance is a multidimensional concept also by Murphy et al. (1996), what indicators can be departmental, such as pertaining to production, finance or marketing (Sohn et al., 2007), or consequential such as pertaining to growth and profit (Wolff & Pett, 2006). It can be measured with objective or subjective indicators (Dawes, 1999; Harris, 2001). There are subjective measures of performance from Venkatraman (1989) were adopted because of the difficulty of gathering hard financial data from private companies, in the absence of any publicly available objective data which includes the firms in the sample (Priem et al 1995; Sapienza et al 1988). The performance indicators suggested by Venkatraman (1989)measures perceived performance relative to those of the relevant competitors.

Customer focus and continuous improvement are key strategic lever of quality to create better values for customers and ultimately superior financial performance (Russell, Arnold 1995).
Increasing competition and disruption in an international market, makes service firms to think about which Innovative technologies and Quality Orientation approaches to be used to improve their Customer Experience. The moving gap between Customer perceptions and expectations is a direct measure of the quality of service as experienced by the customer (Parasuraman 1988). It will also help improve managerial decision making for consistent service delivery, relevant Orientation and innovative use of emerging technologies to foster organizational growth and in turn firm performance.

Small and Medium sized Enterprises (SMEs)

There are variety definitions of SMEs across the world. Defining SME is a challenging task, as every country has its own definition for a SME. Hashim and Wafa (2002), highlights that this gets further complicated by definitions that varies from country to country and within country as well. For instance, country like India, asper Micro, Small and Medium Enterprises Development act 2006. Enterprises are categorized as micro units, small units, medium units and large units depending on the investment in plant and machine(s) (Paramasivam & Selvam 2013). Firm

size is readily available, and managers easily find and share the information on employee size (Nazih &

Osama, 2011; Karagozoglu & Lindell (2004) defined business with 0-99 as small biz, (Bajwa and Lewis 2003) small and medium as 100 and 100-499 respectively. Saffu et al (2008) defined in Ghana as 200 as SME. (Ifinedo P.2011), defined it as less than 500 in Canada. For the purpose of the above study, SME is defined as a firm with less than 500 employees, it is also consistent with prior research above (Vishnupriya 2015).

Conclusion

In this study we examined the literature available on quality orientation, firm innovativeness, firm's intent to innovate, does firm use any emerging technology to prove to be quality oriented, does the firm innovate for better quality of service, and are relevant to the performance of the firm.

1) Answer to the above research gaps will help us empirically re-validate the above argument and understandthe linkages between Quality Orientation and firm performance. It will also help us reiterate the importance of having a Quality Orientation in progressive firm for them to succeed in a competitive market environment.
2) We found an ambiguity regarding the impact of Tools used for Quality Orientation for competitive advantage and relation to firm performance. Empirically validating the effect of tools and its influence of Quality Orientation on firm performance will help clear this ambiguity.
3) Measuring impact of the tools of Quality and Innovativeness techniques used can help firms to predict their performance and in-turn can lead to better performance results.
4) From a practitioner's view, the new area is concentrating on A.I.T. (Automate, Innovate and Transform), rising customer and clients demands, and expectations on higher customer satisfaction, cost saving and faster delivery are being experienced. Hence it is essential to study Intent of firms to Innovate and how andwhat emerging technologies are being useful for SMEs.
5) Clients and Customer demands innovative service offerings, if firm is using any emerging technology to innovate. SMEs will know which Technology to use and how to create intent in the firm for Innovation. This can foster faster response to the market demands and can help firms to achieve customer delight and in turn improved firm performance.

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