Nigerian SMEs Marketing Innovation Performance: Influence of Business Process Management and Environmental Dynamism

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Abstract

At this crucial moment when global competition is becoming more intense, the Small and Medium Enterprises (SMEs) level of innovation is the key to business success, growth and survival. To spur SMEs innovativeness and overcome the negative effects of the intense competition, managers need to have a workable process management system of manufacturing products as well as delivering services. This study proposes the research framework on the relationship between business process management and marketing innovation performance of Nigerian SMEs in manufacturing and service industries, the adoption of environmental dynamism as moderator could further strengthen the relationship. This will benefit the regulatory bodies and business managers.

Keywords: Process management (PM), Environmental dynamism (ED), Marketing innovation performance (MIP), SMEs, Nigeria.

Introduction

As global competition is becoming more intense among business enterprises, there is need for the Small and Medium Enterprises (SMEs) to entrench an effective process management system that could guarantee and sustain smooth flow of innovation. Especially as process management is considered being a dimension of Quality Management (QM) the order qualifier criteria, while innovation performance was termed as the order winner criteria [1]. Process management is defined as the identification and application of critical and best practices to different types of innovative activities [2].

Process management (PM) was identified as a predictor of SMEs innovation performance (IP) [3]. This means that when a firm is able to improve its production process or method of delivering services there is every likelihood that such kind of improvement could facilitate smooth flow of innovative ideas, implementation of innovative processes and launching of innovative products or services for the benefits of both the firm and its customers. Furthermore, Kim et al. [2] maintained that process management exerts great influence on firm’s innovativeness and when firm is able to reflect its level of innovation on its products or services, it stands a better chance to increase its level of productivity, efficiency, business return, market share and competitiveness [4].

However, SMEs in Nigeria still use obsolete or primitive technology in their production processes or rendering their services [5] due to lack of access to modern technological equipment [6].

According to literature, process management was identified as an integral part of Total Quality Management (TQM) [7,8] or QM [4].

Process management as a variable is being accorded diverse treatments, more often as a unidimensional construct being a dimension of TQM [2] or QM [1] and sometimes as a multi-dimensional construct being an independent variable [9].

Nevertheless, findings on the relationship between PM and IP is mixed [9], marketing innovation performance (MIP) dimension of IP is under researched following growing trend among researchers of testing the relationship between PM and product, process or organizational innovation dimension of IP. The usage of
environmental dynamism (ED) as moderator on the relationship is not evident and was recommended [9] and is consistent with Baron & Kenny [10].

More so, most of the researches that studied the relationship between PM and IP are more frequent in the manufacturing industries than in the service sector [11]. However, most of these studies were conducted outside the Nigerian and African context.

Hence, the objective of the study is to examine the relationship between process management and marketing innovation performance in both the manufacturing and servicing sectors of Nigerian SMEs. The study also examines the effect of environmental dynamism as moderator on the relationship between process management and marketing innovation performance.

Aside of introductory part, the paper is structured as follows. PartTwo deals with literature review, statement of propositions and presentation of conceptual framework. While Part Three presents an overview of the paper’s general objective and intention to validate the framework.

Literature Review

Process Management

According to Kim et al. [2], process management is concerned with the identification and application of critical and best practices to different types of innovation activities. However, Tang et al. [3], defined process management as the degree of business process evaluation and control to support both innovation and transformation as well as change of enterprise architecture.

Process management as antecedents to innovation performance was further divided into process formality which focuses on policies, rules, documentation, procedures and responsibilities sharing for successful product innovation; and process concurrency which focuses on integration of diverse segments of an organization that are involve in product innovation activities [12]. Process management was also defined as reconfiguration of organizational systems, processes and methods to conform to acceptable standard for innovation diffusion [13].

While Sanders Jones and Linderman [9], categorized and measured process management based on three different dimensions as process design which involved instrumentation and evolution of new processes, process improvement which involved replacement of the existing processes and process control which involved institutionalization of check and balance mechanism to ensure conformity to standard.

Marketing Innovation Performance

According to Lai, Hsu, Lin, Chen, and Lin [14], corporate innovation activities denote to the ability of employees of an organization to create new or improved products. Innovation was however defined as distinct services and operations related to business that are new, unique and helpful to prospective customers [15].

While Tang et al. [3] have divided innovation performance into two broad concepts: product innovation and process innovation. The former involved introduction of new or improved products or services according to specification and customer needs while the later involved introduction of new or improved production method or channel of service delivery. Innovation performance was also considered as launching of new or improved products or services; production process or method of service delivery; marketing method; and administrative ways of managing an organization [16].

However, the absence of universally accepted definition and types or dimensions of innovation made researchers to adopt different typologies in the discourse and measurement of innovation performance. Gunday et al. [16] viewed innovation from the perspective of product innovation, process innovation, marketing innovation and organizational innovation. On the other hand, Moreno-Luzon et al. [13], viewed innovation from the perspective and manner of introducing innovation into the organization and could be classified as incremental and radical innovation. While others see it from the perspective of technical and non-technical or management innovation [17] and technical and administrative innovation [18]. However, there are situations were innovation is measured in the form of explorative and exploitative innovation [19].
According to Gunday et al. [16], innovation could be defined based on the following four distinct types; as product innovation which involves launching an entirely new or improved product or services into the market; process innovation which involves changing the way products are produced and or services are rendered. It also involves changing or modifying physical facilities used in the production process or service delivery. While marketing innovation entails coming up with a new or improved marketing method through new product design, packaging, promotional activities or pricing formula. Organizational innovation involves introduction of improved practice of managing internal organizational resources and identification and utilization of external opportunities.

However, Moreno-Luzon et al. [13] emphasized that radical innovation combines elements of product and process innovation. It implies that a complete and revolutionary change within an organization is undertaken to bring about new products, services, processes and technological discoveries to replace existing products, services, processes and technology. The effect of radical innovation is not only restricted to the organization, but may lead to total transformation of the entire industry. While incremental innovation can be referred as the introduction of changes on products or services and production process or method of service delivery in a gradual manner. The overall objective is to improve the existing products or services and processes or methods, without necessarily effecting radical changes [13].

Jyoti et al. [17] argued that innovation could be sub divided into technical and non-technical innovation, while technical innovation is related to product and process innovation by providing room for better manufacturing methods, products or services; technical innovation is particularly concerned with new managerial systems, regulations and practices.

Exploitative innovation on one hand entails coming up with new products or services, processes and distribution channels in order to satisfy the emerging market and customer needs; while explorative innovation on the other hand, entails implementation of adjustments on existing products or services, processes and distribution channels in order to satisfy the needs of the existing market and customers [19].

Innovation provides firms with opportunities to launch new or improved production method or system of services delivery and has tendency to reduce cost of production, improve management practices, increase sales, increase business returns and have more competitive edge.

Therefore, SMEs need to pursue innovation as a goal considering that it affects the overall segments of an organization such as products/services, process, organizational/administrative and marketing [16]; technical or non-technical [17] and its mode of actualization could be through radical or incremental transformation [13] and exploitative or explorative reforms [19].

However, this study is motivated by dearth of literature on marketing innovation dimension; and the fact that most of the previous studies have tested the relationship between process management and the other dimensions of innovation performance further justify the need for the study. According to Gunday et al. [16], marketing innovation performance entails coming up with entirely new or improved marketing method, through redesigning of products or services, packaging upgrade, and changing of sales promotion activities and pricing formula. Marketing innovation performance was measured based on five item scale which involved renewal of product promotion techniques, renewal of distribution channels, renewal of pricing techniques, renewal of product design and renewal of marketing management activities [16]. Marketing innovation performance was measured using another different five-item scale which involves market performance, customers demand for products, customers’ satisfaction with products, increase in market share and increase in profit [14].

Process management is crucial for the success of firm’s innovativeness [2] for innovation performance to be achieved in an organization, a good process management system has to be put in place [3] and a
successful process management must ensure adherence to standards, regulations and procedures and at the same time integrate diverse segments of production and service delivery process [12].

Even though, several studies have worked on the relationship between PM and IP, but only few examine the relationship in the manufacturing and service sectors of SMEs. In an empirical study by Kim et al. [2] based on a sample of 242 of certified manufacturing and service companies in Canada examined the relationship between process management as a dimension of QM and radical, incremental and administrative innovation. Using structural equation modeling revealed that process management has direct positive relationship with all types of innovation.

Similarly, Ooi, Lin, Teh, and Chong [20] have empirically tested the relationship between process management and innovation performance. Using SEM and a sample of 206 managers drawn from the certified manufacturing firms, a positive relationship between process management and innovation performance was found in Malaysia. Also, Wiengarten, Fynes, Cheng, and Chavez [21] have found a significant impact of process management on operational performance of innovative companies. The result was arrived based on analysis using SEM on a sample of 1,894 plants in four European countries.

However, a similar study conducted by Zeng et al. [1], based on sample of 283 plants located in eight countries, examined the relationship between process management as a dimension of Hard QM and innovation performance. The estimated structural equation model revealed that hard QM has direct relationship with innovation performance. Similar result was also found on the relationship between process management and innovation performance by Satish, and Srinivasan [22], based on a sample of 72 organizations in India.

In a different empirical study by Moreno-Luzon et al. [13] based on sample of 72 Spanish furniture and textiles firms, examined the relationship between process management and incremental and radical innovation using partial least square structural equation modelling. The result indicated that process management has negative effect on radical innovation, though it relates positively with incremental innovation. These results are in conformity with Key Success Factors (KSFs) to innovation performance notion.

Contrary to the KSFs notion, Cheng et al. [12] came up with Key Success Paths (KSPs) notion and based on a sample of Research and Development (R&D) managers and employees of Taiwanese high-tech, examined the relationship between process-related antecedents and product innovation. Using fuzzy-set qualitative comparative analysis result indicated that process-related antecedent is insufficient for high performance. In support of Business Process Orientation (BPO), based on 127 sample of senior managers of Japanese organizations, Tang et al. [3] examined the relationship between process management as a dimension of BPO and organizational innovation performance. With the help of partial least square structural equation modelling, the authors reported that process management only influenced organizational innovation performance through a mediator.

In a different empirical study based on a sample of 125 managers in the Malaysian electrical and electronics organizations using SEM, [23] found a positive relationship between process management and product innovation. In a related study, Thai Hoang, Igel, and based on a sample of 204 companies in Vietnam and using SEM found a positive relationship between process management and innovation performance.

While, a negative result was reported on the relationship between process management and innovation, based on analysis using SEM with a sample of 418 Australian manufacturing firms [24].

However, a unique empirical study that examined the relationship between the three dimensions of process management and innovation performance, using a sample of 238 plants and ordinary least squares, Sanders Jones and Linderman [9] reported that process design and process improvement dimensions have positive relationship with innovation performance, but process control dimension has no positive relationship with innovation performance. Nevertheless, findings on the relationship between process management and innovation performance is inconclusive.
As several empirical studies have found positive relationship between PM and other dimensions of IP [1], but little is known on the relationship between PM and MIP and only few studies examined the relationship between PM and IP in the manufacturing and service industries of SMEs [2]. Therefore, it will be fair to state the following proposition,

There is a positive relationship between process management and marketing innovation performance.

Environmental Dynamism as a Moderator

According to Pérez-Luño, Wiklund, and Cabrera [25], environmental dynamism is referred as uncertain and unpredictable condition surrounding an organization in its constant interaction with the external environmental factors. However, Jiao, Alon, Koo, and Cui [26] defined environmental dynamism as firm’s difficult business situation due to rapid changes that are taking place within the external environment. These definitions have highlighted that SMEs are bound to face serious challenge due to high level of uncertainty and unpredictability of the surrounding external business environment within which they operate. This has therefore called for improved process management practices, in order to meet numerous preference of customers and aid marketing innovation performance realization.

However, Environmental dynamism was defined as the degree of market, competitive and technological turbulence as well as hostility and competitive rivalry and was measured as unidimensional construct [27].

Environmental dynamism was further broken down and measured based on two dimensions as technological and market dynamism Lee [15]. However, Pérez-Luño et al. [25] and Baron and Tang (2011) considered environmental dynamism as a unidimensional construct.

Previous studies have established a relationship between environmental dynamism and innovation performance [15] and environmental dynamism and marketing innovation [27]. Environmental dynamism as a moderator also exerts different types of influence on innovation performance [28]. Therefore, environmental dynamism could be seen as a tool that will improve business process as well as innovation performance of SMEs [9].

In an empirical study, using a first sample of 87 team leaders and second sample of 336 team members, Lee [15] examined the relationship between the two dimensions of environmental dynamism and product innovation. The results indicated that technology dynamism has affected product innovation negatively, whereas a positive relation exists between market dynamism and product innovation. Additionally, environmental dynamism as moderator exerts different effects on different types of innovation performance. Relying on a sample of 99 Entrepreneurs in the USA, Baron and Tang [28] empirically examined the moderating effect of environmental dynamism on the relationship between creativity and firm-level innovation. Using Hierarchical regression model reported that environmental dynamism has positively moderated the relationship.

Similarly, using a sample of 440 Spanish companies and multiple regression García-Zamora et al. [27] found that environmental dynamism has positive influence on marketing innovation. The results also indicated environmental dynamism to moderate the relationship between product innovation, process innovation and new product success positively and significantly.

In a similar empirical survey comprising 400 sample of Spanish firms, Pérez-Luño et al. [25] examined the moderating effect of environmental dynamism on the relationship between entrepreneurial orientation and innovative tendency. Using binomial regression model, result revealed that environmental dynamism positively moderated the relationship between risk taking and innovative tendency, and negatively moderated the relationship between proactivity and innovative tendency. In a different study of 12 sampled business clusters in six European countries, Kohlbacher et al. [19] found that environmental dynamism positively moderated the relationship between absorptive capacity and explorative innovation. While negatively and significantly moderated the relationship between absorptive capacity and exploitative innovation using multivariate data analysis technique.
Since environmental dynamism was reported as a predictor of innovation performance [15] and due to the emergence of inconclusive findings on the relationship between PM and IP [9], environmental dynamism therefore could relate directly to marketing innovation performance and at the same time moderate the relationship between PM and MIP. Since the empirical moderating effect of environmental dynamism on the relationship has yet to be explored. Thus, this study makes the following propositions,

There is a positive relationship between environmental dynamism and marketing innovation performance.

Environmental dynamism moderates the relationship between process management and marketing innovation performance.

Theoretical Framework

In line with the propositions, the following conceptual framework is developed.

Fig. 1: Conceptual framework

The study is backed by two theories, namely Resource-Based View (RBV) and Contingency Theory. Considering that, RBV dwelled on different aspects of resources that are inherently embedded in the organization will assist managers of SMEs to use process management as a tool that could be used to create products and services that are unique, novel and inimitable. While the use of contingency theory will further support RBV in ensuring that the whole business process architecture is reconfigured in a manner that will suit and meet the expectations of existing and emerging market and customers. The combination of the two theories in the study provided a platform for investigating the influence of environmental dynamism being an external organizational factor on the relationship between process management being an internal organizational factor and marketing innovation performance.

Conclusion

The general objective of the study is to view process management beyond a dimension lens and examine the moderating effect of environmental dynamism on the relationship between process management and marketing innovation performance in both manufacturing and servicing sectors of Nigerian SMEs. Therefore, a conceptual framework for the realization of the research objective is developed. This study offers some important contributions to literature as it examines the relationship between PM and specifically MIP in both the manufacturing and service sectors. Another contribution of the study also is the adoption of environmental dynamism as a moderator on the relationship between PM and IP as recommended [9]. This study has become unique in the sense that it examines the moderating effect of environmental dynamism on the relationship between process management and marketing innovation performance in both manufacturing and servicing SMEs in Nigeria. The study is undergoing a validation process that will benefits policy makers, regulatory bodies and managers of SMEs.

References


