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Innovation Experiences in ICT and Changes in Services Industry: A Theoretical Review

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Abstract: ***Innovation experience in any firm, be it service or manufacturing, is key as it automatically drive the employees, customers and organisation towards pulling together hence clients are locked-in and employees motivated. This paper has explained how ICT innovation in the service industry impacts on both financial and non-financial performance of firms. The paper further explains how firm resources and firm innovation affects the performance of cause with the view of ICT and focus on the service aspect. The paper has used TAM and diffusion theories to explain how spread of innovation occurs across the organisations, departments and between individuals.***

Keywords: Service, automation, externalisation, innovation, socialization

1. Background Information

To maximize the productivity and profitability of an organization, one should think of innovation or information communication and Technology (ICT) adoption. This has been evidenced through several empirical studies that have postulated that innovation is one way of refining efficiency, stimulating economic growth, keeping company on top of the competitors, thereby changing the way of life of individuals [8]; [25]. Innovation has been defined by several scholars differently and its experience varies from one company to another. In the current study, the focus will be at both negative and positive experiences in the service industries from various levels of the organization. According to [26] and [27], innovation is defined as the application and commercialization of creative ideas into practice. Innovation can also be looked at as a change on how we do things or even a change in a process. Change is an expected feature of modern economies hence innovation experience goes hand in hand with the organizations' policy because it is through innovation that the organization would achieve its objectives. Studies reveal that innovative efforts are correlated with certain variables [28] – which can be external or internal to an organization. External variables comprises of partnership with customers [3]; [22]

2. Statement of the problem

The current study seeks to investigate the impact of ICT innovation in service industry. In contrast to previous studies based on similar topic, the theoretical model proposed in this study clearly emphasizes the significant role of ICT as a key part of the service innovation process in a firm. Evolutionary approaches in the innovation theory properly describe the spread of innovation and support the fact that the firms that adopted the innovation in the past are better off and are well prepared for ICT driven innovation contrary to firms without such experience. This model predicts the output both financial and non-financial results of this innovation to be of greater impact in experienced firms. Some of the previous empirical studies focus on the impact of ICT on productivity while focusing on large firms or just generally manufacturing field. However, looking at service industry, ICT investment has been extensively adopted. It is the high reluctance of the innovation which makes ICT innovation adoption useful [16]; [17] and [19] has clearly come out reasoning that in gaging the effects of innovations, consideration should also be on non-financial effect as well. Other research done such as by [20] shows the effect of service innovation on both budgetary and non-money related execution. This means that both should not be looked at explicitly. With service innovation, an organization can be able to differentiate itself from the competitors which in return increase customer loyalty [25]; [21], [18]. So as to gauge key skills required for the advancement of the integrated service, [24], prescribes construct to be used.

3. Discussion

Each day, organizations try to see the easiest, fastest and the best cost-effective way to achieve its objectives which include attracting and retaining customers. To achieve the same, the organizations seek new ways of doing things while some rush to the adoption of information communication and technology. All this can only be understood after understanding the resources required and the expected output of the innovation. Output in this case refers to tangible or intangible results where Innovation resources combine with organizational efforts results in increased productivity. Tangible resources include financial and physical assets [11] which have a physical embodiment and cost [30] and [10]. Intangible resources embrace strategic assets - what the firm/organization has, [11] including intellectual property assets (Hall 1992); organizational assets [9]; [12]; reputational assets [23]; skills (what the firm does); and capabilities [4]; [7]; [15]. Every institution service or manufacturing should have a focus view of innovation aspects. A business perspective to innovation provides an organization with an ability to establish a strategic focus about organizational policies with respect to innovation, thus increasing value through a wide range of internal and external capabilities; including building higher order dynamic capabilities [1].

The service can therefore take different dynamics such as forming a responsive service team that is empowered to provide gift vouchers and free months of Prime service if anything goes wrong [32], as evidenced in companies like Amazon. Other companies such as Ritz-Carlton in the USA are known for putting guests first and for creating incredibly personalized experiences thus the company should build emotional connection between its clients and the brand [16]. Omnitech Limited in Uganda has over the years built a reputation of providing cutting-edge services, to enable organizations manage their businesses efficiently. Building a reputation is a key aspect in locking the customers [26]. In Kenya companies such as Safaricom have adopted low cost and focus strategy which has made them to be outstanding. This has boosted the company's growth and improved customers' loyalty.

3.1 Innovation and Service

According to [12], service innovation is defined as a new concept or as a significantly improved service concept that is taken into practice. It involves a shift in innovation from a product mind-set to a service mind-set [6] these concepts can be in terms of changing processes, or timelines and even the responses to customer's queries. These changes are driven by customers' needs, industry needs, policies and the market trends as well as technological changes. The changes can also come from employees who are also considered as a source of incoming ideas and innovation implementation [3]. Innovating processes comes with various merits both to the customer and to the company. Customers love things done and all they care about is the speed. Competitive actions and innovation can be facilitated through customer engagement by exploring and exploiting new opportunities [13]. Exploring these new prospects helps the company to nature good relationship between business and its customers which enables the company to harvest the inputs from customer preferences from various channels. These inputs if properly kept can later help the client to have a huge source of database about their clients which helps with forecasting hence the concept of the big data which is the main target of most industries. Proper storage and analysis of this data give greater availability of information of customers' choices that also allows employees to detect future opportunities and enable them to operationally reconfigure to seize the opportunity hence competitive advantage. Need for service excellence therefore has driven organizations to increasingly embed it as a fundamental part of their greater/ better service to lock customers' and maintain the upper hand in the market. It has thus found its way in most organizations strategic goals and vision. Industrial automation would take different aspects such as firm externalization which is continuous withdrawal from full-time and introduction of working both in shifts and part time basis. This forms part of employment arrangements. Other factors such as combination and internalization if imbedded in the organizations strategic goals would have either negative or positive impacts on the company as the firm size will be larger. This will force the firm to acquire more advanced systems, change the way they do business or just modify their products hence incremental innovation. When measuring the level of innovation, it is important to consider factors such as customer orientation, supplier orientation, technological capability and service (product) innovativeness as this will be determined by how these categories are grouped as well as the interaction between customers and suppliers.

3.2 Firm Innovation In Relation To Service

This can take different perspectives. Innovation coupled with service industry is regularly actuated by key contemplations. This might be innovative, non-technical or a mix of the two. Firm innovation can follow various concepts such as service concept where Service firms pick changes in the service idea to mimic developments by contenders. The new service idea can incorporate new blends of existing service actions (for example [21]

4. Theoretical Review

This section reviews various theories on the ICT innovation experience in service industry.

4.1 Diffusion Theory

Rodgers innovation theory has been used to discuss the process in which accompany will encounters an innovation or representation of an innovation. Various studies used diffusion to describe various methodology of adoption. In this study, diffusion is used to confirm how innovation is adopted at different stages and at different processes in the firm. The spread on innovation may take various forms such as customer or even an employee sharing their opinion and each day this opinion changes as each person try to modify the same. Innovation is adopted at various levels which includes pricing, response, data capture, storage and analysis. Recent research shows that all mechanisms may exhibit all through the diffusion procedure paying little respect to time [5]; [34]. Diffusion will be utilized to check how individuals or organizations buy or utilize a newly acquired product, gain and perform anew behavior.

4.2 Technology Acceptance Model (TAM)

The objective of Davis' (1989) TAM was to clarify the overall determining factor of computer acknowledgment that lead to clarifying clients' conduct over an expansive scope of end-client processing advancements and client populaces and how they embrace to changes. Different employees and different clients will have different reactions towards any new change. The use of TAM helps to assess how the behaviors will affect the adoption of ICT. The ability to support or to adopt a change is also influenced by other factors such as the users attitude, system attributes, social influence, and enabling conditions which are factors of perceived usefulness and perceived ease of use. Use of TAM aids the effective understanding of innovation in any organization set up. The perceived use of innovation in the service industry has been analyzed through the review of previous journals. Experience and voluntariness to change or to adopt a new technology determines the speed and the rate

of change. All this translates to user behavior which consequently will determine the level of corporation.

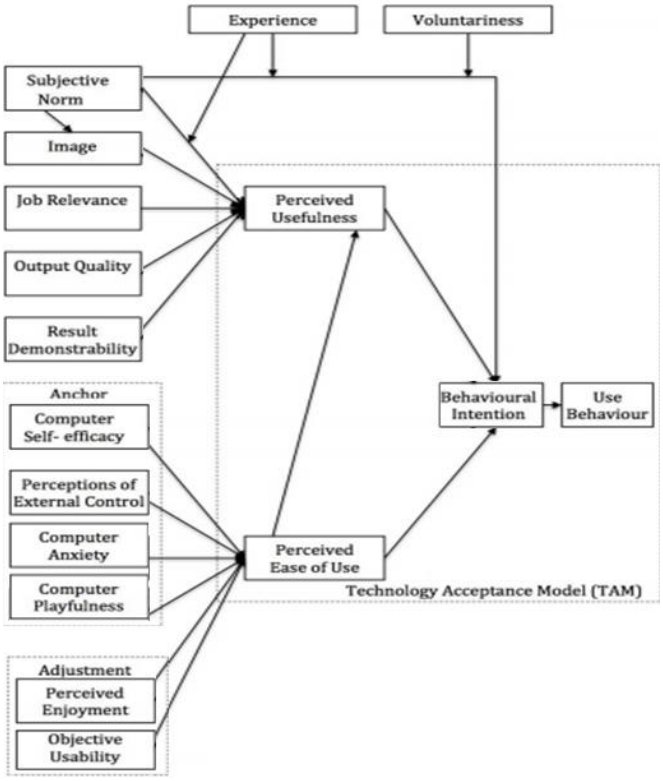

Figure 1: Innovation Acceptance Model (TAM 3)
Source: Venkatesh & Bala (2008)

5. Empirical Review

The concept of service innovation "introduces something new into the way of life, organization, timing and placement of what can generally be described as the individual and collective Processes that relate to consumers" [2]. The innovation procedure can be Planned, purposeful, or accidental, with the end goal that it rises through an intuitive learning process initiated by any involved parties [14]. Some studies recognize that innovation at a business level leads to new products and services with better quality and better prices [4]; [36]; [30]; or at affordable prices for lower end of market - commonly referred as disruptive innovation [7]; [8]; or innovation in services referred to as higher level service offering [1]. [35] Indicate that the importance of developing co-operative networks induces a new panorama of innovation. On the one hand, the open innovation model propagates, one that fosters collaboration and brings their in-house innovation outputs to market [33]. Open innovation involves customer or employee co-creation [2]; [35] and [1] and helps in enriching the brand experience [3]. Managers ought to urge users to use yields, for example, reports, alerting, KPIs, and collaborative imagining, finding new thoughts and market openings, and evaluating the feasibility of ideas [14]. Innovation is perceived as a swaying avenue for organizations to generate value and competitive advantage [17]. In view of patterns and reports on advancement across sectors, it may very well be inferred that organizations can achieve manageable upper hand through adoption of new developments as far as their products are concerned and gain an added value service. With good service, client dedication and loyalty are guaranteed [18]. This may likewise prompt brand identity, which has been actualized inside and out in other service enterprises, for example, media communications and financial institutions.

6. Conceptual Framework

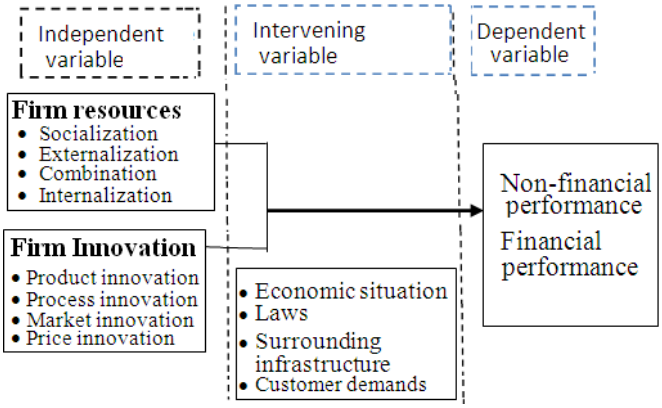

Figure 2: Conceptual Frame work
Source: Author (2019)

7. Conclusion

Based on the discussions above, it can be concluded that innovation in service industry if well implemented would put the client at the center hence both financial and non-financial performance would go high. As a result, the firm is likely to enjoy high profitability and gain a competitive edge. The organizations should therefore invest heavily in innovation as those companies perceived to experience high ICT innovation becomes outstanding. Service innovation therefore acts as firm's engine on renewal and providing catalyst for the service sector growth both financially and non-financially thus if well implemented it gives the firm the potentiality to optimize production processes which with time gives both the employees and customers lots of benefits. ICT innovation therefore, should not just be considered in the service industry but in all organizations that considers customers as part of their strategy or those that wishes to be the leading in the respective industries.

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