## ENTREPRENEURIAL INNOVATION AND OPERATIONAL COST OF FAST FOODS FIRMS IN PORT HARCOURT, RIVERS STATE

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### Abstract
*This study investigated the relationship between entrepreneurial innovation and operational cost of Fast Foods firms in Port Harcourt, Rivers State. Entrepreneurial innovation was explored using product innovation and process innovation, while cost was observed as a mono-dimensional construct. Data were generated using structured questionnaire which were distributed to 225 fast food workers. The hypotheses were tested using partial least square – structural equation modeling (PLS-SEM) via the SmartPLS computer software. The results showed both product and process innovation had significant but negative relationships with cost. Implying that, the higher the level of innovation, the lower the cost of operation of the fast foods. It was recommended that, fast food restaurants should continuously improve their business process by investing in new service processes. This will help minimize cost of operation and ensure competitive edge over rivals.*
*Keywords: Entrepreneurial Innovation, Product Innovation, Process Innovation, Cost.*

### Introduction
Many firms especially in technological fields, simultaneously improve product quality by product innovation, and reduce production cost by process innovation. For example, software that calculates more rapidly or better synchronizes data is a result of product innovation, whereas a new machine tool that achieves the same output using less energy or with lower reject rate is as a result of process innovation (Chenavaz, 2012).

Cost is the amount of money spent to produce a commodity or deliver a service. It is "the naira value of the resources used to produce goods or deliver services; the required payment to manufacture a product or create utility" (Sylva, 2020). Business organizations strive to minimize costs in order to maximize profits. Moreover, firms achieve cost dominance by reducing inventory and overhead costs, replacing obsolete facilities, investing in cost-saving machinery to reduce labor costs, producing high volume, carrying out lean practices, eliminating non-value added tasks and maximizing the utilization of valuable

resources better than their rivals - without compromising quality (Mohammadzadeh, Bakhtiari, Safarey & Ghari, 2019).

When a firm gains cost superiority, it can sell its products or deliver services at prices lower than its competitors' prices; thereby increasing its market share, sales growth and profitability (Kim & Lim, 1988; Ulengin et al., 2014). Furthermore, organizations that operate with lower cost than their peers have competitive advantages in costs relating to facilities, service, personnel, training and development. This provides defense against competitors who must have spent a large chunk of their profits in running their organizations. Moreover, firms that operate at lower cost are more adept in earnings management (Wu, Gao & Gu, 2015) and can easily withstand the power of customers, suppliers and the pressures from substitute products (Porter, 1980).

Some authorities have said that organizations beat competition through quality and cost, if they deploy strategically and optimal bundle of resources and capabilities (Penrose, 1959; Rumelt, 1984; Wernerfelt, 1984). If a firm fails to innovate,it will die and it is not coincidental that, for the past decades, innovation has continued to play a major role in strategic management research and the pantheon of scholarly discourse. Needless to emphasize the fierce competition among firms, has made innovation no longer an option, but a critical part of most management policy.

Innovation is an attribute of businesses (Schumpeter, 1934) that "involves the introduction of a new idea, process, technique, managerial practice, product or service; or the modification and improvement of these, geared towards optimizing the performance indices of an organization" (Sylva, 2020). It is competitive weapon deployed by organizations to enter new markets or increase existing market share (Gunday, Ulusoy, Kilic & Alpkan, 2011; Ebiasuode, Onuoha & Nwede, 2017).

Moreover, firms invest in innovation because it promotes knowledge creation (López-Nicolás & Meroño-Cerdán, 2011), patron satisfaction, corporate prosperity, competitive advantage (Wang & Wei, 2005; Campo et al., 2014; Gomezelj, 2016) and survival (Al-kalouti, Kumar, Kumar, Garza-Reyes, Upadhyay & Zwiegelaar, 2020). In terms of financial performance, innovation leads to reduction of administrative, transaction and supply costs, thereby bolstering profits (Damanpour, Walker, & Avellaneda, 2009). Through innovation, firms are able to harvest the benefits of knowledge transfer (OECD & Eurostat, 2005).In addition, organizations that embrace innovation easily adapt to turbulent and imponderable business contexts such as changes in government policies, customers' tastes/preferences and resource availability (Damanpour, Walker & Avellaneda, 2009).

Process innovation is a dynamic capability (Piening & Salge, 2015) that involves the creation and implementation of new, modified or improved production/ service delivery techniques in the value chain, in order to improve quality and reduce costs (Moreira, Gherman, & Sousa, 2017). Firms that engage in process innovation are able to deliver effective and efficient services speedily, thereby creating greater value for patrons (Anning-Dorson et al., 2019). Quick service (fast food) restaurants practice process innovation by constantly improving their service processes - in terms of delivery lead time, specification, information flow, flexibility and adaptability - in order to meet the needs of clients or customers, better than the competition (Damanpour, 2010; Anning-Dorson, 2018).

Moreover, firms that adopt process innovation are likely to achieve competitive advantage and sustainable performance (Camison & Villar-Lopez, 2014; Piening & Salge, 2015). The reasoning theory behind this current study is that, while entrepreneurial innovation may promote superior cost adoption in fast food restaurants, such relationship

will be amplified when the managers and owners increase their investment in training and development of the workforce. Hopefully, this study will provide a deeper understanding and do greater justice to the complexity and distinct flavor of entrepreneurial innovation and its possible correlates (in this case, cost) in a developing country context such as Nigeria.

The quick-service restaurant industry is a major part of the hospitality industry (Adeola & Ezenwafor, 2016). People patronize fast food products because they can be consumed with ease anywhere and at any time. Moreover, good taste and affordability are also some of the important factors that pave way for the expansion of the fast food sector. Furthermore, the busy lifestyle of majority of the population creates an avenue for fast food firms to enjoy tremendous growth in sales volume.

Furthermore, the rapid expansion of the industry in the country has attracted frenetic competition. While the fierce competition rages - coupled with new technologies, the introduction of new foods and recipes and the increasing demands of consumers - fast food restaurants in Nigeria are facing challenges of providing quality food/services at lower costs in an era of skyrocketing prices of factor inputs and prohibitive cost of doing business.

Specifically, complaints from patrons indicate that there is need amongst others, to reduce cost of food and provide better services, reduce longer menus which confuse customers, poor customer service and billing errors, amongst others.

There is convergence of opinion that the process of improving quality of food or services attracts some costs (Jensen, 2020). Typical costs are food costs, beverage costs, administrative costs and labour costs. Among these, labor attracts the highest cost in restaurant operations, gulping up to 30% of total sales (Mhlanga, 2018).Some of the factors that contribute to cost of running restaurant business in Nigeria are: cost of providing electricity for storage of items, lighting and air conditioning, pilferage, wastage of food and raw materials, poor book-keeping, customers walking away without paying for services and high employee turnover - which make managers to spend more funds in training new set of employees. The dilemma that managers face is that it is difficult for them to pass on the cost burden to customers.

Moreover, quick service restaurants have the challenge of minimizing or controlling the above mentioned costs in order to maximize profits and remain competitive (Bertagnoli, 2010). Overall, as competition in the quick service restaurant industry gets fierce - coupled with intense food inflation, unstable cost of raw materials, plus demand for lower prices by customers and higher wages by employees - managers are preoccupied with the problem of how to make reasonable profits in a sustainable and competitive manner through cost control measures.

The aim of this study is to assist in evaluating the relationship between Entrepreneurial innovation and operational cost of Fast Food Firms in Port Harcourt, Rivers State. Also to investigate the relationship between product innovation and operational cost, and assess the relationship between process innovation and operational cost.

The following hypotheses were developed:

$H_{O1}$:    There is no significant relationship between product innovation and operational cost.

$H_{O2}$:    There is no significant relationship between process innovation and operational cost.

In summary, this study is of the view that Entrepreneurial Innovation may be used to address a substantial chunk of cost in the fast food sector in Port Harcourt, Rivers State.

**Literature Review**
**Entrepreneurial Innovation**

Innovation is one of the key features of entrepreneurial behaviour (Yuen, & Ng, 2021). It is considered a dominant factor in firm competitiveness and the single most important factor in enhancing and sustaining competitiveness (Guan, Zhang, Zhao, Jia & Guan, 2019). Innovation is a key practice underpinning the survival and competitiveness of firms in a competitive globalized environment (Hanif, & Asgher, 2018). Within the business context, innovation is considered the basis of strategic change through which firms can gain and sustain competitive advantage (Franco, 2020). According to Nelson (1993), innovation encompasses "the processes by which firms master and get into practice product designs and manufacturing processes that are new to them". Such a broad understanding of innovation is particularly meaningful within the context of innovative entrepreneurship insofar as upgrading technology or improving skills may lead to more efficient use of scarce resources or higher-quality outputs, but not necessarily to new products or patents. Innovation is one of the instruments of growth strategies that leverages a firm upon entering new and existing market, and provide the company with a competitive edge. Innovation opens new ground and opportunities in both local and international market by offering new products and ideas to both local and foreign markets (Ferreira, Fernandes, & Ratten, 2017).

According to Luecke and Katz (2003), innovation is generally understood as the successful introduction of a new thing or method. Therefore, innovation is the embodiment, combination, or synthesis of knowledge in original, relevant, valued new products, processes, or service.

Plessis (2007) defined innovation as a formation of new knowledge which helps the new business returns, which has purpose to make organization internal business process and structure more sophisticated and produce the market acceptable product and services. Although, there is no generally accepted definition of innovation, however, most professionals and scholars agree that, innovation is the introduction of a new method of production, creation or opening of new markets, and new products or services.

In today's highly competitive and sensitive business environment, with the consistent and persistent change in customer taste and desires, and with firms struggling to remain in relevant positions in the industry, ideas are no longer centred on cost reduction and mass production with companies paying more attention to customer needs. Innovation has come in handy for top firms to build competitive advantage than those that are less innovative. Current research has shown that companies that are usually market leaders are companies who have innovative competencies and uses such competencies to satisfy variety of customers with different needs, thereby reducing the possibility of customers switching brands while attracting competitor's brands (Lizarelli, Toledo, & Alliprandini, 2019).

Process innovation is not often explicitly discussed in the literature. In most studies, process innovation is considered as a sub-element of technological innovation For example, Kitchell (1997) considers technological innovation is best examined in light of the nature and process of innovation adoption. Avlonitis et al. (1994) consider technological innovation challenges in relation to machinery and production methods as measures for technological innovation.

In our view, technological innovation is embedded in either product innovation that embodies the unique, novel technological content in new *products*, or process innovation

that exploits new equipment of technological advancement. Hence, technological innovation is not considered as a salient factor in this research.

Therefore, this study uses process innovation, which captures the introduction of new production methods, new management approaches, and new technology that can be used to improve production and management processes. Process innovation is imperative in overall innovative capability, in that an organization's ability to exploit their resources and capabilities, and most importantly, the ability to recombine and reconfigure its resources and capabilities to meet the requirement of creative production is critical to organizational success.

A process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software (e.g. installation of new or improved manufacturing technology, such as automation equipment or real-time sensors that can adjust processes, computer-aided product development).

**Cost**

The term cost focuses on the ability to effectively manage production cost, including its related aspects such as overhead and inventory, and value-added. Competitive advantage, as argued by Porter, (1980), can be achieved by adopting one or more of the following generic competitive strategies: 1) cost leadership in which the features of this strategy are: low cost relative to competitors, related and standardized products, and economies of scale. A cost leadership strategy requires intense supervision of labour, tight cost control, frequent and detailed control reports and structured firm and responsibility; 2) differentiation: this strategy is described in terms of product uniqueness, an emphasis on marketing and research, and a flexible structure; and 3) focus: this strategy implies a focus on a narrow strategic target (buyer group, product line or geographic market) through differentiation, low cost or both. Hill (1994) indicates that low-cost manufacturing is the priority when profit margins are low. The logic behind linking a cost leadership strategy to competitive advantage, as suggested by Porter, (1991), is that competitive advantage can be divided into two basic types: lower cost than rivals, or the ability to differentiate and command a premium price that exceeds the extra cost of doing so.

Cost leadership is a strategy that enables the firm to gain competitive advantage over its competitors through gaining market share based on reducing its costs. Cost leadership can be achieved through various methods such as: process enhancement, controlling of overheads and economies of scales, (Banker, Mashruwala, & Tripathy, 2013) cost leadership strategy creates a barrier against competing firms through charging lower prices. However, the organization can still gain profits as a result of its low operating cost. Cost leadership strategy can also control the bargaining power of buyers by limiting their ability to further push prices down. On the other hand, it also allows it to become more flexible in defending itself against increasing input cost by suppliers, as a result of their low-cost strategy. This strategy can also allow the firm to obtain an advantageous position in terms of the availability of a substitute product (Awadi, 2014).

Cost leadership strategy is expressed as cost advantage reflecting selling the goods and services at a lower cost than competitors in terms of design and production (Wheelen & Hunger, 2002). Cost leadership strategy aims to gain competitive advantage by reducing the costs of R&D, service, sales and marketing activities (Rugman & Hodgetts, 2000). Companies can get competitive advantage in scale of economics by using effective systems to reduce the cost of human resources and minimizing the costs with cheaper raw material, mass

production and distribution (Eraslan, 2008). Cost leadership provides competitive advantage in the markets in which the consumers are sensitive to the prices. Firms conducting this strategy aim to reduce all cost in the value chain (Thompson & Strictland, 1996).

**This work was strengthened by Schumpeter's theory of Innovation**

The theory of innovation was propounded by Joseph, A. Schumpeter in the year 1934. He believes that the main function of an entrepreneur is to introduce innovations and the profit in the form of reward, given for his performance. Schumpeter posits that innovation refers to any new step or policy that an organization undertakes to reduce the overall cost of production or increase the overall demand for its products.

In line with Schumpeter, Ruppel and Harrington (1995) suggest that innovation studies provide an appropriate body of research as a basis for studying the assimilation of new information system processes. Thus, innovation theory may aid our understanding of troublesome information technologies that are not being assimilated as expected. The spread of innovation is not meeting current expectations, and therefore it is important for managers to understand the influence of innovation on competitiveness of the firm.

**Empirical Review**

Innovation is vital to business activities, because it sets the pace for growth and business success. It also provides a competitive advantage over rivals. Due to the importance to the competitiveness of business firms, several studies have been conducted on the two variables. Among these studies include Herman (2018),in his entrepreneurial innovation and competitiveness of European firms. Some of the recent studies on entrepreneurial innovation and competitiveness were reviewed below:

Hermundsdottir and Aspelund (2021) investigated sustainability innovations and firm competitiveness in Norway. The study did a meta-analysis of 100 relevant peer-reviewed publications. The findings of this systematic review of the direct effect of sustainability innovations on firm competitiveness strongly indicate that the relationship is generally positive in the sense that sustainability innovations, in general, increase a firm's value creation by 64 percent and its ability to attract non-financial assets by 75 percent and also reduce costs 39 percent. The study concludes that sustainability innovations propels value creation; reduces costs, and enhances nonfinancial assets.

Kiveu, Namusonge and Muathe (2019) analyses the effect of innovation on firm competitiveness in manufacturing SMEs in Nairobi County, Kenya. Data was collected from a sample of 284 enterprises for the period 2012–2014. Multiple linear regression was used to analyze the effect of innovation on competitiveness. The findings indicated 97% of the manufacturing SMEs were innovating with majority implementing incremental innovations. Process, marketing and organizational innovations had positive significant effect on competitiveness, while product innovation had positive non-significant effect. The study concluded that implementation of process, marketing and organizational innovations results in an increase in firm competitiveness.  Manufacturing SMEs can therefore improve their competitiveness by implementing the different types of innovations. The combined effect of the four innovation types was higher than for each individual innovation type hence firms are better of implementing different types of innovations as compared to any one type of innovation. They recommend the implementation of innovations with high novelty by SMEs to increase their competitiveness. This can be facilitated by SMEs forming linkages and cooperating in innovation with knowledge generating institutions.

Nham, Nguyen, Pham and Nguyen, (2013) examined the effect of innovation on firm's performance. The study focuses on firms in supporting industries of mechanics, electronics, motorbike and automobile. Data was collected from 150 firms in the list and survey questionnaire was administered to directors, CEO of those firms. The study utilized analysis methodology of reliability, factor analysis and regression. The result demonstrated there are positive effects of process, marketing, and organizational innovations on firm performance in supporting firms (r= 0.317, p < 0.01; r = 0.341, p < 0.01; r = 0.413, p < 0.01). More specifically, the higher the level of innovation activities is, the greater the innovative performance is, which means the larger level of Process, organization and marketing innovation activities are, the higher level of innovative performance are likely to be. Secondly, the higher level of Process, organization and marketing innovative performance, the better level of firm performances is likely to be. To sum up, in order to improve the innovative and firm performance, those firms in supporting industry should highly concentrate on process, marketing, and organizational innovation activities, rather than product innovation activities.

## Methodology

This study adopted a cross-sectional survey, which is part of quasi-experimental research analysis. The study area of the research were the head offices of all major fast – food firms in Obiakpo and Port Harcourt Local Government Areas,in Rivers States. The population comprised 31 fast-foods registered with Port Harcourt Business Directory (https://www.businesslist.com.ng/category/fast-food/city:port-harcourt), and were found to have been in business for at least five years with not less than 10 employees. The study focused on managers, supervisors, customer service attendants, marketers and cashiers. For this study, the Krejcie and Morgan (1970) sampling size table was used to determine a sample size of two hundred of twenty five (225) from the target population of five hundred and forty nine (549) employees from thirty one (31) fast foods in Port Harcourt, Rivers State.

There were two sources of data collection employed in this study, the primary and secondary sources. Data for this study were collected through the use of a structured questionnaire that was administered to the respondents. Face and content validity was initially used to ascertain the level of validity of the instrument and construct validity was also used. The reliability of this study's instrument was confirmed through the use of the Cronbach Alpha values and factor loadings via SPSS version, 25 and SmartPLS 3.2.9.The techniques used to analyze the demographic characteristics of the respondents, were simple percentages and pie-charts plus the aid of Statistical Package for Social Sciences (SPSS) version 25. Secondly, this SPSS version 25 was again used to examine the univariate statistics (means, standard deviations, skewness and kurtosis) of each of the study variables. Thirdly, to test the multivariate analysis in order to determine the relationships between predictor variable (Product innovation) and the criterion variable (Cost), Partial Least Square – Structural Equation Modelling (PLS-SEM) were used with the aid of the SmartPLS version 3.2.9 computer software.

## Results and Discussion
## Tests for Normality

In this section, data collected were analyzed to ascertain its suitability with the data analysis technique. The essence of conducting the normality test is to further establish the suitability of the data for parametric or non-parametric analysis (Sen, 2002; Yap & Sim, 2011). Several tests were carried out to ascertain the normality of the data. These include:

Kaiser-Mayer-Olkin (KMO) and Bartlett's test of sphericity, Kolmogorov-Smirnov and Shapiro-Wilk test of normality.

### Kaiser-Mayer-Olkin (KMO) and Bartlett's Test of Sphericity

The Kaiser-Mayer-Olkin (KMO) and Bartlett's test of sphericity were computed. The general benchmark for KMO test is KMO > 0.5. Rojas-Valverde, Pino-Ortega, Gómez-Carmona, and Rico-González (2020), KMO value up to 0.7 is considered satisfactory. Thus, this study considers a KMO value greater than 0.5 as satisfactory and applicable. Conversely, Bartlett's test result shall be considered satisfactory at a p value less than 0.05. The result of the analysis is shown thus:

**Table 1: KMO and Bartlett's Test of Sphericity**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .711 |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 79.254 |
| | Df | 3 |
| | Sig. | .000 |

**Source: IBM SPSS Analysis Result, 2021**

Table 1 showed the result of the KMO test of sample adequacy and Bartlett's test of sphericity for the three variables of the study namely product innovativeness, process innovativeness and cost. The result showed a satisfactory KMO value of 0.711 which exceed the benchmark of 0.5. Similarly, the table showed a satisfactory outcome for the Bartlett's test of sphericity as it boasts of a significant value of 0.000 which is significant even at 99% confidence level. Hence, the appropriateness of the using factor analysis was confirmed.

### Kolmogorov-Smirnov and Shapiro-Wilk Test of Normality
**Table 2: Kolmogorov-Smirnov and Shapiro-Wilk Test**

| | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | Df | Sig. | Statistic | df | Sig. |
| Product Innovation | .396 | 199 | .000 | .644 | 199 | .000 |
| Process Innovation | .325 | 199 | .000 | .732 | 199 | .000 |
| Cost | .249 | 199 | .000 | .805 | 199 | .000 |
| a. Lilliefors Significance Correction | | | | | | |

**Source: Field Survey, 2021.**

Table 2 showed the normality test result for the identified measures and dimensions of the study. The result showed both the Kolmogorov-Smirnov and Shapiro-Wilk test of normality. For Kolmogorov-Smirnov test, the result showed a significant value of 0.000 for all the variables, significant at 0.05; thus demonstrating that the sample is not normally distributed. Similarly, the Shapiro-Wilk test also revealed that the sample is not normally distributed since the result showed a significant value of 0.000 which is as well significant at 0.05. Thus, there is a significant difference between the sample and a normal distribution. This justifies the need for factor analysis (Sen, 2002).

All of these preparatory and additional analyses executed in this study proved that the data is fit. Based on the results of these analyses, the researcher can confidently proceed to test the hypotheses of the study and as such make necessary decisions.

### Test of Hypothesis and Evaluation of Structural Path Significance

Having fulfilled the requirements of the measurement model, the structural model was examined. The structural model is where the actual test of hypothesis is conducted. Thus, in this section the correlation between entrepreneurial innovation and cost was

undertaken. Entrepreneurial innovation was measured with product innovation and process innovation. Next, cost is observed as a mono-dimensional construct.

Two hypotheses were developed and tested using the partial least squares – structural equation modeling. The results are clustered and shown in figure 1 and table 3 below. The conditions to either accept or reject the stated hypothesis, for path coefficients (β values), values from .10 to 0.29, .30 to .49 and .50 to 1.0 are considered as weak, moderate and strong correlations, respectively (Cohen, 1988). Then, for a two tailed test, t values greater than 1.96 are significant, while t values less than 1.96 are non-significant (Hair et al., 2011).

First-second hypotheses were clustered and tested in figure 4.2 and table 4.18. The results of the analyses were reflected in path relationships, path coefficients, standard errors and t-statistics.

$H_{O1}$:    There is no significant relationship between product innovation and operational cost.
$H_{O1}$:    There is no significant relationship between process innovation and operational cost.
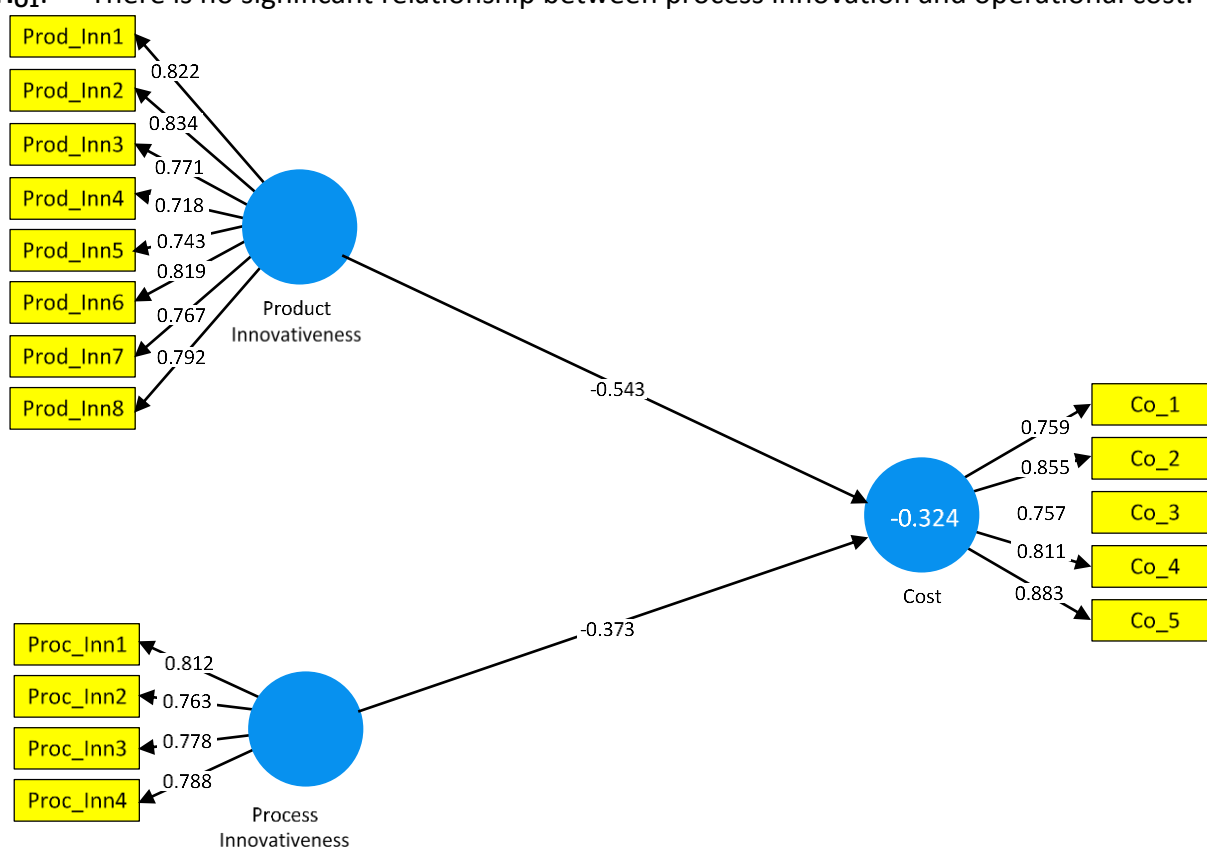


**Figure 1:** Test of Hypotheses One and Two
**Source:** SmartPLS 3.2.7 Output, 2021.

**Table 3: Results of Hypotheses Testing ($H_{01}$ – $H_{02}$)**

| Hypotheses | Path Coefficient (β) | Standard Error | T. Value | P. Value | Decision |
|---|---|---|---|---|---|
| Pr -> Co | -.543 | .041 | 7.311 | .001 | Not supported |
| Pi -> Co | -.373 | .052 | 7.471 | .000 | Not supported |
| Note: Pr = Product Innovation, Pi = Process Innovation, Co = Cost, T-Statistics greater than 1.92 at .05 level of significance. | | | | | |

**Source:** SmartPLS 3.2.7 Output, 2021.

The path relationship as presented in figure 1 above and table 3 below shows that there were positive and significant paths between product innovation and cost (β = -.543; t

= 7.311; p < 0.005), and process innovation and cost (β = -.373, t = 7.471; p < 0.005). Therefore, the null hypotheses were not supported.

**Table 4: Effect Size of Latent Variables ($H_{01}$ – $H_{02}$)**

| Paths | Correlation Value | Predictive Accuracy ($r^2$) | Adjusted $r^2$ | Effect Size ($f^2$) | Remarks on Effect Size |
|---|---|---|---|---|---|
| Pr -> Qt | -.543 | .353 | .348 | .428 | Not supported |
| Pi -> Qt | -.373 | .353 | .346 | .362 | Not supported |
| Note: Pr = Product Innovation, Pi = Process Innovation, Co = Cost, $r^2$, 0.19 = weak, $r^2$, 0.33 = Moderate, $r^2$, 0.67 – substantial (Cohen, 1988), T-Statistics greater than 1.92 at .05 level of significance. | | | | | |

**Source: SmartPLS 3.2.9 Output, 2021.**

The analysis above shows that product innovation has the strongest effect on cost of the firms with an $f^2$ value of .428, whereas, process innovation showed a moderate effect on cost of the fast foods firms.

**Discussion of Findings**

This study investigated the nexus between entrepreneurial innovation and cost of fast foods firms in Rivers State. Two research objectives and a corresponding number of hypotheses. The hypotheses were tested using PLS-SEM with the aid of SmartPLS 3.2.9. The results are discussed below:

Hypothesis one examined the relationship between product innovation and cost, while hypothesis two focused on process innovation and cost. The results revealed that both dimensions of entrepreneurial innovation were negatively and significantly correlated with cost. This implies that, the more innovative the fast foods firms are, the lower the cost of operations. On the other hand, failure to be innovative may lead to higher cost. Thus, by being innovative the fast food firms lower their costs and improve their competitiveness. This finding synchronizes with the work of Su and Tang (2016), who observed Canadian micro firms and confirmed that innovation helps firms to be successful in the current global economy with increased competition and ever changing markets, especially in the post-crisis context, also firms need to focus more on innovation in exploring new ideas and designing new products to develop new markets which will ensure cost-cutting and cost leadership in old markets. The finding further agrees with Aziz and Samad (2016) who found that every innovative organization acquires competitive advantage against its competitors. Likewise, Gabriel and Gbaraka (2015) submit that successful innovation management and effective product innovation capabilities enhances competitive advantage. The finding supports the Bird's (1988) entrepreneurial intentionality theory which opined that a successful entrepreneur is "rational, analytic, flexible, adaptive and cause-and-effect oriented, structured and intentional with action". And with these qualities the business can be sustainable and survive despite volatilities from the environment.

**Conclusion and Recommendations**
**Conclusions**

The study concludes that entrepreneurial innovation plays significant role in the reduction of cost of the fast foods restaurants in Rivers State. Hence, entrepreneurial innovation is strategic to the competiveness of the fast foods firms. Also, cost minimization is significant for fast food restaurants to succeed in their operations and compete favourably with their rivals. Therefore, the study concluded that, entrepreneurial innovation

positively impacts quality and reduced cost, leading to increased competitiveness of fast food restaurants.

## Recommendations

In view of the research and the importance of entrepreneurial innovation and operational cost of fast food firms, the study suggests:

i. Management of the fast food restaurants should frequently introduce new and improved products according to customers' needs and preferences.

ii. The fast food restaurants should continuously improve their business process by investing in new service processes. This will help minimise cost of operation and ensure competitive edge over rivals.

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