FACTORS INFLUENCING INNOVATION MANAGEMENT PRACTICES IN NIGERIA TEXTILE MANUFACTURING FIRM'S

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ABSTRACT

Globally, innovation & innovation management (IM) are becoming a common phenomenon for firms to be able to compete and become successful. Despite many studies that have been conducted on IM, research track have shown that factors that influence IM activities are limited which has brought about series of problems associated IM. Notable among them are increasing and constant fear for change, fear of failure, poor working culture, limited resources and unclear goals for execution etc. this study uses a behavioral approach to investigate the factors that could influence textile firms IM practices in Nigeria. A quantitative approach was employed to obtain data from selected textile firms in Nigeria. Using random sampling technique, 154 firms were selected to respond to the survey questionnaire. The study findings based on the results of exploratory factor analysis (EFA) and multiple regression analysis show that factors play an important role influencing IM of the firm. The findings further illustrate how factors can enhance the competitiveness and success of firms within Nigeria industrial landscape. Based on these findings, the study concludes that more emphasis and insights to be placed on factors that have positive impact on firms sustainability and growth in other to boast productivity. Finally, it is suggested that more future research be carried out to explore IM in-depth and in different contexts.

Key words: Innovation management, factor analysis, productivity.

1. INTRODUCTION

Studies on innovation generally consider it as an indispensable tool for organisations to attain competitive advantage (McAdam and Keogh, 2004; Mol and Birkinshaw 2009). A large body of literature has claimed that among the benefits innovation provides is ensuring how organizations can in a long term become successful and effective (Amabile and Kramer, 2007; Mumford et al, 2002). Thus, achieving requires developing special care and devotion towards understanding how firms' innovative activities can be stimulated through technology used (Birkinshaw & Mol, 2006; Crossan and Apaydin, 2010).

Innovation studies in the past largely focus on technological inventions which present different types of innovations (Damanpour et al, 2009). The non-technical innovation similarly have proved further interesting leading to understanding of firm's innovations and their competitiveness (Birkinshaw et al., 2008; Hamel, 2006). Today, emphasis on innovation-driven economy are usually characterised and associated with expanding knowledge based on industries standards. Studies, have shown that the problems confronting organisations to ensure effective innovation management are either organisational, environmental or geographical in nature (Prabha, 2007; Mol & Birkinshaw, 2007). Kadar et al, (2014) however pined it to organisational internal factors necessary to influence IM, creating complexities firms are confronted with and leading to death or closure of many firms.

Thus, IM problems results into slow management process caused, the fear for change, fear for failure, poor working enviroment and culture, limited resources, risks and unclear goals for execution of tasks.

2. THEORETICAL BACKGROUND

It is understandable that IM must pass through a systematic process to guranteed new or improved products and services be created. An examination of Nigerian textile manufacturing firm's shows interesting challenges that deter their progress and growth in terms of innovations and innovation management (Adegbite, et al, 2012). Studies have revealed several factors inhibits the growth of textile firms, and specifically in developing countries (Gado & Nmadu, 2011; Adegbite, et al, 2011; Banjoko et al, 2012; Diogu, 2014). Some of the factors alarming and posing challenges to their innovativeness are in the area of economic policies of the government, workers and consumer's perceptions, infrastructural issues such as electricity needs, globalization caused by economic recession, and finance needed to carried out operations.

Studies in most management literature have contain and emphasise that innovations are important stimulus to drive competitive advantage of firm's (Smith et al, 2008). The lack of makes innovative organisations today to be continuously troubled base on internal and external changing factors. Smith et al, systematic identification of factors based on literatures mapping shows the need to examined factors and how they effect or impact firm innovation management process. Osenieks, and Babauska, (2014) in another scenario examined the relevance of innovation management for a durable and vibrant SMEs. They observed that for them to create value in today's new economic landscape, they need to change the recipe used in measuring their success. Their study review findings based on (Harrington & Voehl, 2012) who identified twelve (12) factors.The impact to the factors shows that they were more prevalence in any system of innovation management.

Contrarily, empirical study by Mansor, et al (2012) investigated the organisational factor influencing performance management in higher education institutions. their findings also identified five factors termed as internal organisational influencing factors (employee involvement, performance oriented culture, management commitment, internal resource and maturity) with the first two found to be more significant in the influence of performance management system (PMS) implementation out of factors identified. This hinged on the importance of management commitment that is inadequate in most organisations, and resulting to killing employee's morale and initiatives. In furtherance to identifying influencing factors, Smith et al, (2008) systematic studies summed it up showing that the identification of factor and relationships they have is very important in impacting organisation ability to manage its innovations. They however, maintained that the understanding of these factors as perceived by employees and their impact on the relationships they possess towards innovation management are yet to be understood.
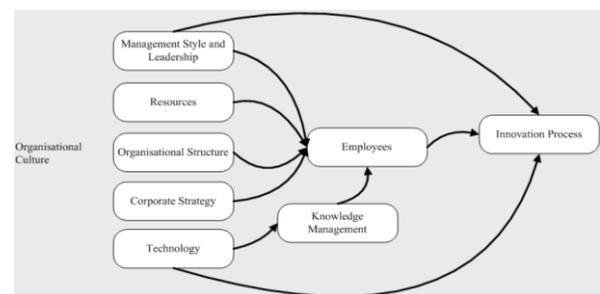

Figure 1. Relationships between the factors.
Source: (Culled from Smith et al, 2008)

3. RESEARCH METHOD

The study was conducted to investigate factors influencing innovation management practices in textile firms in Nigeria. Using survey design self-administered questionnaire (SAQ), the questionnaires were distributed to the selected sample. The survey questionnaire adopt a seven (7) point frequency scale. For example, (1= Strongly Disagree, 2= moderately disagree, 3 = disagree, 4= neutral, 5= agree, 6= moderately agree, and 7= strongly agree). The entire textile Industry in Nigeria were considered as the population of the study. The sample was selected using systematic random sampling technique.

The sample size for the study was 193, based on Krejcie and Morgan (1970) sampling size formula. Based on the study unit of analysis, it was found appropriate to take only a single response from each textile firm's

manager/owners or their proxies. The instrument for the study was developed after extensive literature review and consist of 36 items. The questionnaires were mail delivered to the selected respondents and with a follow-up to ensure delivery and notification or otherwise. A total of 154 usable questionnaires were collected, making a response rate of 79.4%. The instrument was subjected to exploratory factor analysis (EFA) and validity reliability testing. The data received was subjected to further statistical tests such as Pearson correlation and multiple regression analysis. Before proceeding to regression analysis, the assumptions related to regression were satisfied by the researchers.

4. RESULT AND DISCUSSION

The study examine the relationship between identified factors and innovation management. The findings of the correlation support the hypothesis with $P < 0.001$, $r = .671$ and $n = 154$. This imply that a higher significant positive relation exists between identified factors and innovation management. The examination of the dimensional correlation of the identified factors and innovation management equally illustrates that all the factor dimension correlates. The correlation indicates that all the nine factors were re-grouped and indicates evidence of correlation relationship.

The regression analysis performed further validate the correlation analysis outcome. The result of the study showed that the identified factors overall beta coefficient ($\beta = 1.286$, $P < 0.01$) the factors that have a positive relationship towards innovation management. Furthermore, the result also shows the overall model fitness as represented by the F statistics. The F statistics, in this staudy, was significant at $p < 0.01$, and suggest a good model fit is achieved. The identified factors therefore shows an R-value of (0.886) which account for about 86% of IM variance, while other variables outside account for the rest. This shows that the firm internal factors have a linear relationship to enhance the firm innovations (refer to Table 1, 2 and 3 below for details).

Similarly, in determining the level of impact between the identified factors. A factor analysis was performed which grouped the factors into nine (9) and renamed as follows: (top management commitment related factor grouping, team work support factor grouping, attitude of employees and leaders related factor grouping, organizational culture related factor grouping, knowledge sharing and communication skills related factor grouping, technology usage related factor grouping, organisational strategy related factor grouping, organizational related structure related factor grouping, resources usage and utilization related factor grouping). The study reveal that "R" value ranges between (0.219) representing 29.9%, as lowest and (0.899) representing 89.9% as the highest. Similarly, the coefficient determination of "R" square for the factors equally range from between (0.048) representing 4.8% as the lowest and (0.808) representing 80.8% as the highest. Also, the Adjusted R-square value of the model base on the factors range between (0.042) representing 4.2% as the lowest and (0.806) representing 80.6% as the highest respectively. This inform their predicted level. Thus, this reveals that (factor1 to factor 9) indicate that the higher the predicted level. As such, it clearly prescribed point that there are other factors other than the identified factors that could also impact on innovation management.

Lastly, the degree to which each factor grouping of the independent variable (identified factors) account for the dependent variable (innovation management). Using the standardized regression value of β (Beta), a comparison was made using β (Beta) value indicate impact level. Factor 1 has the highest value of (0.899) representing about 89.9% . Factor 2 shows a β (Beta) value of (0.551) representing about 55.1%, while, Factor 3 presents a β (Beta) value of (0.534) representing about 53.4%, Factor 4 have a β (Beta) value of (0.536) representing about 53.6%, Factor 5 scored a β (Beta) value of (0.425) representing about 42.5%, Factor 6 shows a β (Beta) value of (0.335) representing about 33.5%, additionally, Factor 7 shows a β (Beta) value of (0.612) representing about 61.2%. Factor 8 also

recording a β (Beta) value of (0.229) representing about 22.9%, and lastly Factor 9 obtaining a β (Beta) value of (0.219) representing about 21.9% respectively. The findings shows clearly that out of all the identified factors (1-9) measured, only six (6) of the factors groupings best fit the model and having a positive significant prediction impact on innovation management of the firm.

Table 1: Correlations of factor groupings based on dimensions

	IM	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Factor 9
Pearson Correlation	1	.405**	.644**	.909**	.830**	.628**	.817**	.399**	.668**	.669**
Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000
N	154	154	154	154	154	154	154	154	154	154

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2: Model summary of Linear Regression of Factors

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.886a	.785	.784	.57319

a. Predictors: (Constant), Factors
b. Dependent Variable: Innovation management

Table 3: Multiple regression analysis & their impact on identified factors groupings

Model	R	R Square	Adjusted R Square	F	Sig.	Beta	t	Sig. Level
TMC	.899	.808	.806	638.529	.000	.899	25.269	.000
TWS	.551	.303	.299	66.199	.000	.551	8.136	.000
AEL	.534	.285	.280	60.542	.000	.534	7.781	.000
OCL	.536	.288	.283	61.372	.000	.536	7.834	.000
CMS	.425	.180	.175	33.428	.000	.425	5.782	.000
TCH	.335	.112	.106	19.188	.000	.335	4.380	.000
STR	.612	.375	.370	91.031	.000	.612	9.541	.000
STC	.229	.053	.046	8.429	.004	.229	2.903	.004
RES	.219	.048	.042	7.683	.006	.219	2.772	.006

5. CONCLUSION

This study only seek to explore the factor influencing innovation management (IM) practices. The findings of the study indicate that, there exist considerable consistency with regards to the factors playing an all important role in enhancing IM within the textile firms in the country. The data analysed specifically show that top management commitment factors impact the most on the activities of IM. This was supported by the literature as well which suggest a connection and points that factors are very pertinent and essential for innovations to thrive on be it manufacturing or service sector (Adegbite, et al, 2012). Furthermore, the findings highlights that factors have an influential role towards effective realization of innovation management.

Concurring to above, (Bessant, 2005) studies advocates that firm's innovation management and capacity utilization should be based on series of stages which firms must performed in managing innovations for innovative products to pass through. Other factors also demonstrate that organisational factors play significant role in ensuring effective management of innovation process in design of firm product innovations. According to Osenieks and Babauska, (2014) factors allow innovation management provides the needed interactions that will binds the workers together to work towards achieving common goal for the organization.

Hence, achieving these, will allow organisation to find the most crucial and critical factors that need be implemented to better meet customers desires and needs, to stay ahead of competition and thus, capitalize on strategic market opportunities available to them. Consequent on the above, Nigerian government need to braced up with some important policy issues at all levels, especially with concerted efforts to achieve one of the primary goal of the National development agenda of the government towards creating or building opportunities at domestic, regional, and global markets.

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