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An assessment of revival strategy in a textile sub sector in Nigeria. A study of Kaduna metropolis

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Abstract
The massive and frequent rate of textile industry closure in Nigeria is a disturbing phenomenon. Over fifty (50) textile manufacturing firms in Northern Nigeria have folded up, according to a recent survey by Manufacturers Association of Nigeria (MAN). The main objective of the study is to investigate the revival strategies for rebuilding declining textile manufacturing firms in Kaduna metropolis. A cross sectional survey research design is adopted in which relevant data was collected by means of questionnaire instrument. A sample of one hundred and fifty (150) was drawn from a population of two thousand, eight hundred and fifty five (2,855) using Krejcie & Morgan formula for determining sample size and stratified random sampling with proportionate sample size allocation. Data collected was analyzed using Partial Least Square – Structural Equation Model (PLS - SEM) respectively. The empirical results show that Technology and remarketing are found to be positively significant determinant of revival strategy while retrenchment strategy does not appear to have a significant relationship as a revival strategy contrary to the study posited hypothesis. The study concludes that inadequate investment in modern textile technology, use of deficient managerial skills, poor marketing among others are responsible for the decline. The study therefore recommends investment in state-of-the-art textile equipment, technology and innovation in textile industry;, robust marketing effort and sale of qualitative textile products are necessary factors that will aid in rejuvenating and transforming the moribund industry.

Keywords: Fabric, technology, industry decline, textile industry and revival strategies.

1.1 Introduction

Industrialization is a subset of economic development. Increased globalization of activities, technological upgradation, evolution of marketing trend, dumping of textile product into Nigerian market among others induces incidence of industry decline over the years. Thus, over the last five decades since independence, Nigeria faces crises of industrialization. The Nigerian National Bureau of Statistics (NNBS; 2015) asserts that in the 1960s and 1970s, Nigeria Manufacturing Industry developed positively as a result of Foreign Direct Investment (FDI).

The textile and apparel industry is a very wide and heterogeneous industry with its products being used by virtually everybody – private households and business concern. The industry is primarily concerned with the design, production and distribution of yarn, cloth and clothing. The raw material may be material or synthetic using product of the chemical industry (Wikipedia; 2018). The activities of the industry range from the production of raw materials (i.e. natural as

well as Man-Made Fibres) to the manufacture of a wide variety of semi-finished and finished products. The industry is an important part of world manufacturing process, giving employment to more than 5 million people (Stengg; 2001 and Yusuf; 2015) its significance for social and economic cohesion is increased by the fact that it is dominated by a large number of small and medium sized enterprises which are often concentrated in particular regions thereby contributing to the wealth and cultural heritage of the host communities (Stengg; 2001 and MAN; 2016). The industry has capacity to play a significant role in establishing a particular country's deeper movement into middle income status and in serving as a source of gainful employment to the citizenry.

The manufactured product from textile firms according to World Bank group report (2017) on Africa and Apparel textile industry actually offers opportunities for increased value to the sector streamlining trade logistics, building of skills and experience from the factory floor to management level. Sequel to these submissions, it serve as a spring board to other manufactured goods offering opportunities for various countries to capture an increasing share of global trade and to advance economic diversification. Though, being one of the oldest sectors in industrial revolution, the textile industry is often being referred to as traditional industry. The industry has three (3) major stages of production in the manufacturing of textile products: spinning, weaving and finishing (World Bank Draft Report, 2000). The spinning process is the making of thread or yarn out of the fibres which come from cotton, wool, polyester (which blends with cotton and rayon), nylon, rayon which also blends with cotton), acrylic and other synthetic blends of yarn materials. The second stage is the weaving process which involves production of fabrics out of the thread produced in previous sequence by interlacing long threads in two directions. The final stage involves bleaching dyeing, colouring of fabrics printing and this involves marketing of textile fabric with decorative designs. The final stage is completed through surface treatment of the textile fabric. Thus, the spinning stage produces input to the weaving stage and in turn fabrics. Fabrics are then sold to the garments sector which produced clothing for final consumption.

In Nigerian Manufacturing history, Textile industry occupies a unique position because of its capacity to generate employment and provide clothing. Though, traditional textile have been produced in Nigerian for many years, but modern textile production commenced in Nigeria in 1956 and 1962 with the establishment of Kaduna Textile Mill and United Nigeria Textile Mill limited. From the beginning, these companies were conceived as vertical integrated mills to process locally source raw materials (i.e. cotton) through spinning for the production of yarn, weaving for the production of grey cloth, dyeing, printing, and finishing for the production of finished textile products. The industry produced varied fabrics annually ranging from African prints, shirtings, embroideries etc. to guinea brocade, wax prints, jute and other products. The Central Bank of Nigeria annual report of (2014) revealed that out of 13 subsectors in the manufacturing sector, textile and synthetic fabrics accounts for a significantly proportion of the overall growth in manufacturing industry. Textile industry represents the quintessential engine of industrial growth for Nigerian industries as rapid development has been associated with garment and textile exports.

The paper is sub-divided into five (5) sections, section one is concern with introduction, section two literature review, and third section is the methodology, fourth

section is data presentation and analysis and the last section is concern with conclusion, recommendation and suggestions for further studies.

1.2 Statement of the Research Problem

One of the most crucial issues that has retarded the growth and development of textile manufacturing firms is neglect by the government, as the country has witnessed the closure of many textile firms and low capacity utilization of the existing ones. Thus, studies by Manufacturing Association of Nigeria (2015), Standard Organisation of Nigeria (2009) and report compiled by Kaduna state ministry of industries (2005) indicate that survival of textile companies is in jeopardy; this is due to dumping and smuggling of textile materials into our markets. The sector suffers decline largely due to the competitive nature of global market and increased technology, demand from local and international buyers to reduce time of production, lower cost, lower quality, liquidity problems, cotton lint price increase and changes in multi-lateral trade agreements.

Therefore, Nigerian textile industries have become less competitive in the global market place as competition increases; the process of carrying out business strategy is being challenged in Nigeria. This pressure includes swift development in modern textile machines, the cost of acquiring and implementing the technology, employees training to go along with what is obtained, and preference among Nigerians for foreign textile fabric, especially when considered in the light of its effect on made in Nigeria textile wax. Thus, the decline in textile manufacturing industries is more pronounced as the conventional handloom faced severe competition from power loom. Many textile factories close shops in Kaduna metropolis; out of eight (8) textile manufacturing firms in Kaduna metropolis only two (2) are presently functioning (MAN, 2019).

Over the last few years, several economic factors such as globalization, industrialization, technological changes, innovative changes, quality of product among others have created new production, transportation and opportunities in the global markets. Thus, major trends shaping the domestic manufacturing sector includes: technological advances, improved production methods and global surpluses of manufacturing capacity especially from China. Today, the Nigerian textile industry is on the brink of extinction. Between 1992 and 2006, 543,000 textile workers have lost their jobs (Olori, 2012). More than 150 textile companies have closed down in the past 20 years (Okere, 2009). The decline in textile production is also evident in the cottage industry, as only the southwest and Kaduna metropolis region has local textile producers. It is lamentable that Kaduna metropolis which had functional textile manufacturing firms like Kaduna Textile mill, United Nigerian Textile Limited, Arewa Textile, Nortex, Finetex, Supertex, Unitex etc. in the 70s and early 80s is today a ghost of its former self with all the mills closed down except United Textile Limited (UNTL), Chellco industries. This predicament needs to be redeemed in order to grow textile manufacturing industries in Nigeria.

1.3 Research Questions

Based on the discussion on the research problem, the following questions are formulated accordingly:

1. To what extent does technology affect the decline of textile manufacturing firms in Kaduna metropolis?
2. What is the relationship between retrenchment strategy and the decline of textile manufacturing firms in Kaduna metropolis?
3. What is the relationship between

remarketing and the decline of textile manufacturing firms in Kaduna metropolis?

1.4 Objectives of the Study

The overall objective of the study is to identify the revival strategies needed to rejuvenate declined textile manufacturing firms in Kaduna metropolis. The specific objectives are to:

1. Assess the relationship between technology and decline of textile manufacturing firms in Kaduna metropolis.
2. Evaluate the relationship between retrenchment strategy and decline of textile manufacturing firms in Kaduna metropolis.
3. Assess the relationship between remarketing of textile products and decline of textile manufacturing firms in Kaduna metropolis.

1.5 Hypotheses of the Study

The following null hypotheses are formulated based on the research objectives to guide the study:

H_{04}: There is no significant relationship between technology and decline of textile manufacturing firms in Kaduna metropolis.

H_{05}: There is no significant relationship between retrenchment strategy and decline of textile manufacturing firms in Kaduna metropolis.

H_{06}: There is no significant relationship between remarketing of textile products and decline of textile manufacturing firms in Kaduna metropolis.

2.0 Literature Review

The aim of this section is to review work of other scholars and explain the conceptual foundation of the study.

2.1 Conceptual Clarifications

Garba (2017) looked at strategy as a unique and sustainable ways by which business create value. It is about business competition, a deliberate search for a plan of action, a unique mix of value or value preposition. He concluded that strategy is about three major activities; (a) customer: concern with choosing, attracting and winning patronage of products (b) competition: a response to rival and competing ideas and (c) Changes: turn the envisioned future into reality, identifying factors that affect outcome and keeping them in check. Therefore, strategy is principally the mindset of the enterprise which reveals its effort and position as it responds to changes, customers and competitors in a way that optimizes the enterprise vision, mission and objectives.

Frazer (2017) defines textile industry as an organization whose business include yarn production, spinning systems, weaving, knitting, making ready-made garments and composite milling operations. Treball (2013) also collaborated textile industry activities from the top to bottom of the production chain to include; manufacturing of manmade fibres, raw clothing (spinning, weaving and finishing) other types of textile manufacture products (carpets, non-woven etc.) and home textile products. The stage higher up the textile chain is essentially capital intensive, clothing is more labour intensive and at the end of industry production chain is distribution.

The Nigeria textile industry according to MAN (2018) is a declined industry, because it has experienced decreased demand of its product largely due to newer and more qualitative textile fabric from foreign countries particular China and the industry has failed to remain competitive in pricing and at least in relation to better and more qualitative and readily available Asian textile fabric in Nigeria market (Yusuf: 2015)

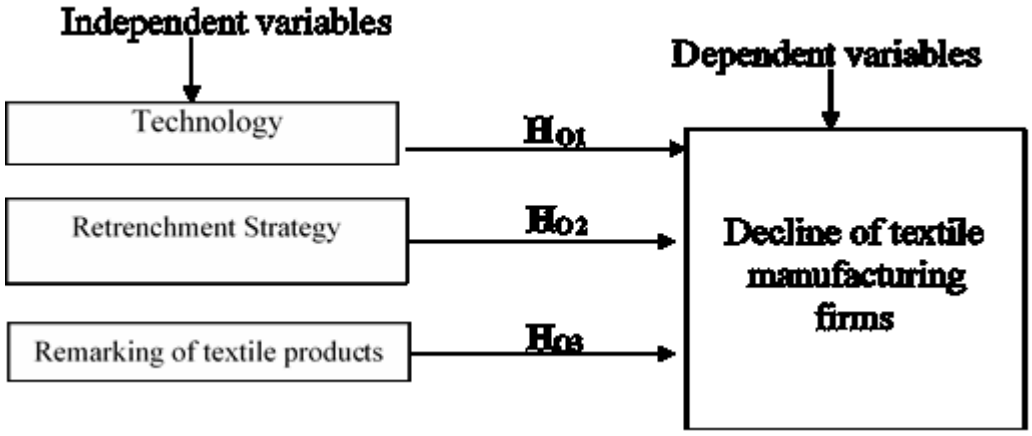
Globally, the case of industry decline is worrisome and organizations must develop comprehensive revival strategies that can assist managers to avert declining conditions of their firms. A great number of researches were undertaken on corporate revival with the aim of differentiating between firms that

overcome decline status and returns to profitability and those that fail to recover.

2.2 Research Framework Diagram

A diagram below illustrates the theoretical relationship of the variable in this study.

Fig. 2.1:



Source: Researcher's composition (2020)

2.3 Empirical Review

The industry revival strategy is an important aspect of an enterprise. Revival strategies evolve over time and the techniques can lead to prosperity, growth or decline (Sihvonen, 2010 and Yusuf, 2020). A great number of researches were undertaken on revival strategy with the aim of differentiating between firms that overcome decline status and returns to profitability and those that fail to recover (Yusuf, 2015). Successful revival strategies to decline conditions are usually organized along various dimensions as epitomized by Manimala (1991); Khandwala (1992); Panicker (2012) and Yusuf (2020). Organisational functional areas like corporate planning department requires revival strategy for adequate planning (Rasheed, 2005; Panicker, 2012). In human resources division, the emphasis is on retrenchment strategy (Pearce and Robinson, 1992; Mishra and Mishra, 1994). In financial division, the aim is to develop and use the financial strength of the business as an asset to aid business competitive position (Kumar, 2003; Singh, 2011). In marketing department, market intelligence and planning, good sales effort, innovative market approaches, mutual buyer seller relationship are necessary tools for effective marketing decisions and planning (Manimala, 1999; Goldman, 2000; Harker and Harker, 2001 and Yusuf, 2020).

The working paper series of Corman (2009) showed intervention phases of a business turnaround in medium sized New Zealand manufacturing enterprise in the period 2007-2008. The study analyses firms strategic certainty and operationally derived results. The turnaround action was based on realigning the firm to take advantage of external market opportunities and logistical enhancement. The overall aim of the study under business was introducing modern logistics and supply chain management and adopting key marketing effort for the firm, particularly the small medium sized manufacturing enterprises.

Amartey, Amissah and Ankama (2014) examined the effect of decline of Ghana's Textile Industry. The study adopted qualitative and descriptive survey. Observation and interview were the research

instrument used to gather data. The findings shows; excessive influx of textile products from foreign countries, exorbitant utility cost affecting textile production, intellectual dishonesty on the part of foreign textile products and obsolete technology by local textile manufacturers. The study recommends among others that government of Ghana should invest massively in local textile industry by giving bailouts for the acquisition of new machinery, human resource and manpower development.

Harmbrick and Schechter (1993) cited in Sheryi (2007) were among the first researchers to test the utility of retrenchment as a turnaround strategy. They examined empirical data on 260 mature industrial-product business units taken from the Profit Impact of Market Strategies (PIMS) project. Hambrick and Schechter (1993) concluded that efficiency reassures are major avenues for turnaround and can be achieved through cutbacks in asset, cost, products and markets. Robbins and Pearce (1992) extended this work by exploring the strategic behaviour of 32 manufacturing firms in the US textile industry. They observed that cost retrenchment was a prevalent strategy and is considered a necessary element in achieving turnaround; when the improved margins from cost retrenchment were not sufficient to meet financial obligation, asset retrenchment was necessary to realize a turnaround; or a combination of cost and asset retrenchment resulted in the highest average level of turnaround performance. Robbins and Pearce (1992) concluded that retrenchment is a critical strategic element for achieving turnaround regardless of the cause of decline situation.

The study of Smith and Graves (2005) shows the relationship between corporate revival strategy and financial distress. The study further develops discriminant model to identify distressed companies that have potential to turnaround and those that failed to turnaround. The analysis of the result reveals that successful revival strategy are associated with the severity of the distressed state, though some variables were omitted from the study due to limited information contained in the firm's annual reports. The study did not provide information from the role of top management causes of decline and competitive position of firms examined. The study shows that a *priori* distressed firms that enjoy a high level of stakeholder's support are more likely to remain in business and enjoy support from stakeholders (creditors' employees and target audience). The study also indicated that retrenchment strategies may not always aid a recovery if cutbacks are made in the wrong firm's functional departments or poorly executed. The study recommended that declining firms may need to adopt short and long term recovery strategies concurrently.

Furthermore, Weitzel and Johnson (1989) explored the relative effectiveness of cost versus asset retrenchment in growth declining industries. They found that asset retrenchment was useful in growth industries but had a negative effect in declining industries. Though, cost retrenchment had no effect in growth industries but aided turnaround in declining industries. In their study of turnaround at Japanese firms, Zhou and Hui (2003) found that retrenchment activities included divestment of subsidiaries. Dauda and Akingbade (2011) examined the impact of technological change and employee performance in selected manufacturing industry in Nigeria. The study determines the effectiveness of technological innovation for improved performance in the Nigerian manufacturing industry. Two hypotheses were formulated to determine the relationship between technological change and employees skill; and between innovation, technological and employee performances.

Questionnaires were distributed to 1256 respondents in textile industry, cement industry, chemical industry etc in Nigeria. The findings reveal that technological change and innovation have a significant relationship on employee skill and performance. Employee are required to upgrade their skills to cope with technological change and innovation for them to be relevant in the contemporary period.

In the study of Jumeyo, Rohra and Maitilo (2007) on small scale industries in Indian using simple percentage analysis, they found that technology plays an important role in the viability of an industrial unit in sectors like textile industry. They concluded that the pace of change with new innovation and introduction of new technology is much faster today than it was in the past. In such a global scenario, small industrial units cannot survive in the global competition purely on the basis of cheap labour or adoption of simple labour intensive technology and keep pace with changing situations.

Gohru Lukman and Butt (2011) examined the strategy for introducing Nano technology in textile industry of Pakistan. The study looked at the possible application of Nano technology followed by a strategy for transforming conventional industry of Pakistan into a Nano based textile industry. The study found that Nano textile, have successfully applied Nano materials on to cotton fibre to develop water repellant surfaces, increases ultra violet protection and impart anti-bacterial properties and also found that antistatic property of nylon and polyester can also be improved by imparting Nano technology. Study concluded that the aim of the strategy is to promote nano technology research and development activities in the textile industry with a vision to arrange close interaction between industry, academia and research development at national and international level.

Gatawa, Aliyu and Musa (2013) using panel data set for three selected textile firms in Kano for the period 1983-2005 utilizing fixed effect regression and random effect regression model to investigate on globalization, competition and textile output in Kano metropolis. The study reveals that globalization and competition have negative but significant influence on textile output. The study recommends that Nigeria government should take a second look at their membership of with World Trade Organization (WTO) and selectively engage these policies that will promote her national interest most especially, the imperatives needed to protect the textile firms. This finding is consistent with the study of Aluko, *et al.,* (2004).

2.4 Theoretical Framework

Nachanias and Nachmias (2009) cited in Akinsola (2016) describe a theoretical framework as the systematic combination of taxonomies, conceptual framework, description, explanation and prediction that provide shortcut for a complete explanation of empirical phenomenon. Though, according to the organisational studies and psychology school of thought, organisational decline is associated with related theories such as: industry life cycle theory, upper echelon theory, threat rigidity theory, resource based theory, complexity theory etc. (Mellahi and Willinson; 2004 and Beeri; 2009). Therefore, the strategies for reversing the declining trend of a firm is a systematic management plan to bring an organisation out of decline and return it to the path of profitability. Industry decline may be caused by internal or external factors (Pearie and Robbins, 1993; Kazmi, 2004; Lohrke, Bedeian and palmer 2004); Arogyawamy and Yasai Ardekani (2005); Hoffman (2008) and Yusuf (2015).

2.4.1 Industry Life Cycle Theory (ILT)

Empirical findings of industry evolution is traced to Gort and Klepper (1982) and Klepper and Grady (1990) porter (1980) and host of others. The studies of industry life cycle depicts the various stages where business operate, progress, prosper and slump within an industry. An industry life cycle analysis allows the firms within the industry to formulate strategies to avert potential threats as well as embrace available opportunities (Hill and Jones; 2012 cited in MacDonald and Hartt; 2014). The analysis allows the management of the firm to study the transition through the different stages and adjust their business models according to the needs of the industry (Cusumano, Kahl and Suarez; 2006 and MacDonald and Hartt; 2014). However, the relative length of each phase vary substantially among industries, the standard model of life cycle phases deals with manufactured products and the cycle traces the evolution of a given industry based on the business characteristics commonly displayed in each phase as shown: the start up phase, involves the development and early marketing of a new product or service (Kenton; 2018).

2.4.2 Resources Based View Theory

Penrose (1959) said that resources based theory is fundamentally concerned with growth process of the firm. The theory emphasizes the collections of physical and human resource whose complementary productive services are brought together and thereby specific to the firm's coherent administrative organisation. This collection of resources particularly the firm's existing human resources provides an incentive to expand and a limit to the rate of expansion for the firm. The Resource Based View according to Sheehan and Foss (2007) is one of the ideas adopted by modern organisation when formulating and implementing revival strategies. The theory indicates that the primary determinants of a particular industry or firm are the resources in their possession (Abdulrahman, 2017). Thus, Zinger (2002), Kazmi (2004), Singh (2009) provided the following as organisational resources; capability factors (firm's functional areas), assets, organisational functions, requisite workforce, ability to obtain relevant information by the firm. Accordingly, Abdulrahman noted that the theory helps in the development of distinct resources and competencies while applying them to produce values.

3.0 Methodology

In every research work, the materials, methods and procedures used are critical to achieving the desired research objectives. This particular study is concerned with revival strategies to aid the rebuilding declining textile manufacturing firms in Kaduna metropolis.

3.1 Research Design

The research design of this study will be descriptive survey method. Descriptive method is where data are collected for the purpose of describing and interpreting existing conditions purposely to make discovery and explanation of events. Descriptive research is fitting for all types of research in assessing situations as a prerequisite to inference and generalizations (Osuala, 2015).

3.2 Population and Sample of the Study

Population is a collection of a known number of identifiable units. The population of this study, therefore, consists of the number of the workforce of the two (2) selected textile manufacturing firms in Kaduna metropolis as at the time of the survey. Therefore, the population consists of 2855 textile workers in the two (2) selected textile firms as obtained from Human Resources Department(s) of United Nigerian Textile Company. Chellco 1 & 2 and MAN Bulletin 2019.

Samples are usually drawn with the aim of estimating the population quantities. In this research work, samples will be drawn from the target population (textile manufacturing firms) based on a statistically determined, efficient sample size so as to estimate some parameters of the population.

3.3 Sampling Design and Sample Size Determination

The sampling design is stratified random sampling with proportional sample size allocation. In stratified random sampling, the population of whole units in the population is divided into a number of subpopulations called strata.

Table 3.1: Stratified Random sampling with Proportional Sample Size Allocation

Selected Textile Firm	Status	Population	Sample size
United Nigeria Textile PLC	Functional	1200	63
Chellco 1 & 2	Functional	1655	87
Total		2855	150

The determination of sample size is a common task for many applied researchers. Inappropriate, inadequate, or excessive sample sizes could influence the quality and accuracy of research. The total sample size of the potential respondents was 150, derived from all the staff of the selected textile firms using Krejcie and Morgan (1970) sample size table. Based on the table 150 is adequate for a population size of 2000 and above.

3.4 Method of Data Collection

In this study, data was collected using structured questionnaire which consisted of 112 items. The questionnaire was distributed to 150 respondents in the two (2) selected textile manufacturing firms in Kaduna metropolis. A cross sectional study was utilized to collect data from the respondents at a single point of time.

3.5 Instrumentation of the Study

The research study is premised on quantitative analysis. The analysis is designed to elicit information from the respondents on textile manufacturing firms which is the dependent variable and the revival strategy which is independent variable (i.e. technology, retrenchment and remarketing).

3.6 Statistical tool for Data Analysis

Data analysis was performed using a number of methods of analysis. The data analysed using Statistical Package for the Social, PLS-SEM.

3.7 Validity and Reliability of the Instrument

Validity of the instrument means the ability of the questionnaire to capture exactly the data it was designed to collect. The content of the questionnaire after scrutiny by relevant experts was validated.

The reliability research questionnaire is generally measured using Cronbach's alpha statistics. It is specifically aimed at measuring internal consistency of a questionnaire. The greater the degree of consistency and stability in an instrument, the greater is its reliability (Kumar, 2005). Cronbach's alpha is a consistency test of whether all items within the instrument measure the same thing that is to test internal steadiness for different dimensions. Cronbach's alpha is designed on scale that varies between 0 and 1. Although a negative value is possible, such a value indicates a scale in which some items measure the opposite of what other items measure. The closer the alpha is to 1.00, the greater the

internal consistency of items in the research instrument.

The findings of the Cronbach's Co-efficient for the instrument is given as:

Table 3.2: Descriptive Statistics of Reliability Result

Measurement	Number of items	Cronbach's Co-efficient alpha value
Decline	15	.828
Technology	15	.890
Retrenchment	15	.687
Remarketing	15	.828

Source: Field Survey, 2020

3.8 Data Analysis Technique

PLS SEM: The study used variance based structural equation modeling (the partial least squares approach PLS-SEM), which is adopted in social sciences and management courses such as; strategic management (Hair Sarsedt Pieper and Ringle 2012).

Assessment of Measurement Model: An assessment of a measurement model involves determining individual item reliability internal consistency reliability content validity convergent validity and discriminant validity (Hair et'al 2011; Hair et'al, 2014; Henseler *et al.,* 2019). Thus, in this study the measurement model assessment involves examining the indicator loadings and adopted loadings above 0.50. Although loadings above 0.700 (Hair, *et al.,* 2014) are recommended, as they indicate that the construct explains more than 50 per cent of the indicator's variance, thus providing acceptable item reliability.

Test of Hypotheses

To test the hypotheses, assessment of structural model shall be undertaken.

4.0 Data Presentation, Analysis and Interpretation

The questionnaire administered were collected from the respondents in the selected firms (UNTL and Chellco) A total of 150 questionnaires were administered but 150 questionnaires were filled and returned, only one was not returned. The raw data was dully checked to verify that each data collected was correctly entered. Each response category was then assigned a numerical value and data tabulated according to the number of observations that fell under them.

4.1 Multicollinearity

Multicollinearity is a dilemma that happens when the independents variables are extremely interrelated to as high as 0.9 and above (Tabachnick and Fidell, 2007). If the multi collinearity problem is detected, it can be resolved by deleting the offending variables(s). To screen for multicollinearity, Variance Inflation Factor (VIF) was examined. The general rule of the cut-off points is that the VIF values should not exceed 5(Hair *et al.,* 2016). From the Table *4.1* VIF ranges from 1.773 – 2.500, and, is good enough and consequently, it is concluded that there is no multicollinearity problem among the exogenous variables.

Table 4.1: ***Collinearity (VIF)***

Constructs	VIF
UTN	2.291
RS	1.829
RTP	3.021

From the table 4.1, it is evident that none of the variables are extremely interrelated with any other variables. For instance, among the variables all the association values are fit below the yardstick of 0.5, therefore, the study conclude that there is no dilemma of multicollinearity among the variables under examination.

4.2 Assessment of the Measurement Model

In order to understand the path model involving main effects concerning the present study. The proposed theoretical model has three exogenous construct and one endogenous construct and is presented in fig. 4.1

The dependent variable is the decline in textile industry and has a total of 7 indicators, while the independent variable are change of top management with 7 indicators, quality of made in Nigeria with 10 indicators. Again innovation has 9 indicators.

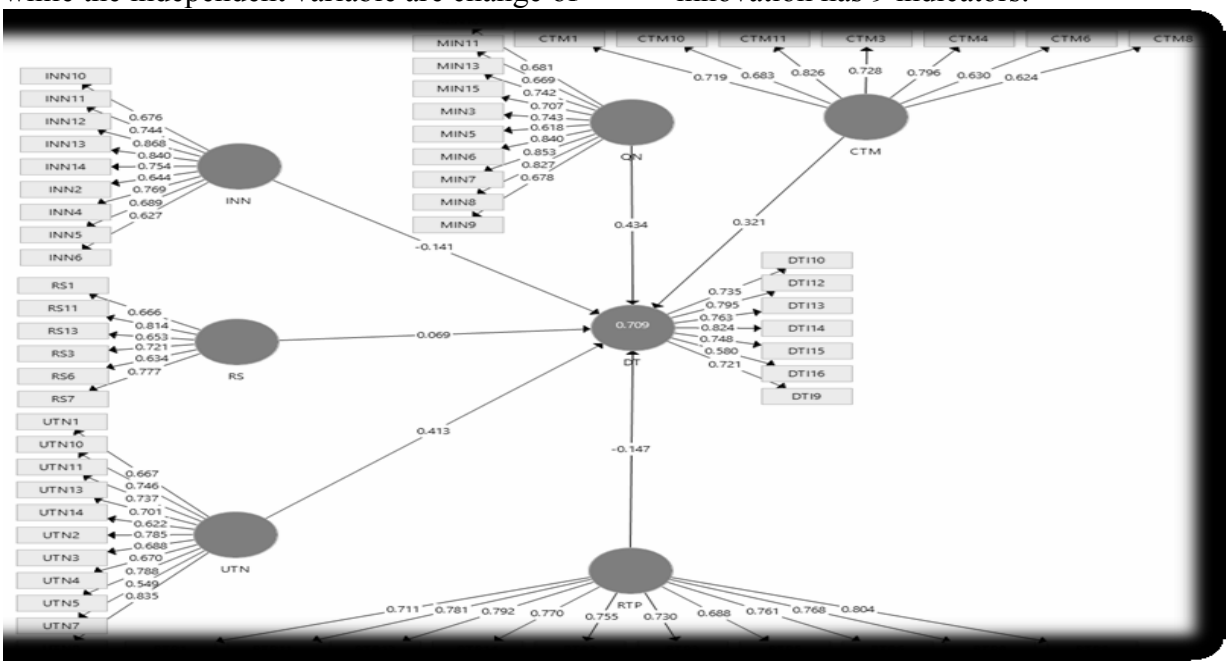


Figure 4.1: ***Path Model***

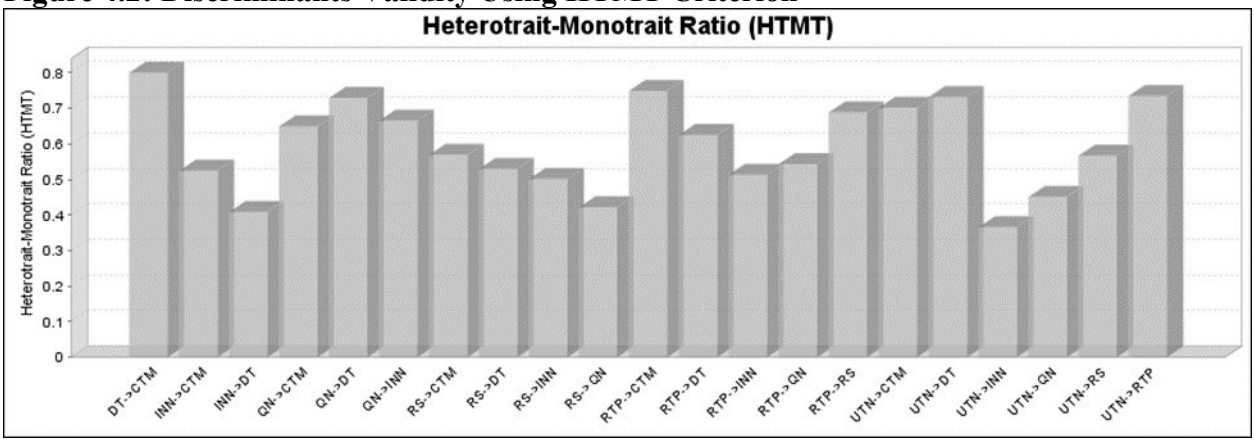
Table 4.2: ***Measurement Model: Reliability and Convergent Validity***

Constructs	Indicators	Items Loadings	CR	AVE
UTN	UTN1	0.667	0.948	0.532
	UTN10	0.746		
	UTN11	0.737		
	UTN13	0.701		
	UTN14	0.622		
	UTN2	0.785		
	UTN3	0.688		
	UTN4	0.670		
	UTN5	0.788		
	UTN7	0.549		
	UTN8	0.835		
	UTN1	0.667		
	UTN10	0.746		
	UTN11	0.737		
	UTN13	0.701		
RS	RS1	0.666	0.861	0.510
	RS11	0.814		
	RS13	0.653		
	RS3	0.721		
	RS6	0.634		
	RS7	0.777		
RTP	RTP1	0.711	0.930	0.573
	RTP11	0.781		
	RTP13	0.792		
	RTP14	0.770		
	RTP2	0.755		
	RTP3	0.730		
	RTP5	0.688		
	RTP6	0.761		
	RTP8	0.768		
	RTP9	0.804		
DTI	DTI10	0.735	**0.894**	**0.550**
	DTI12	0.795		
	DTI13	0.763		
	DTI14	0.824		
	DTI15	0.748		
	DTI16	0.580		
	DTI9	0.721		

Note: 45 items were deleted due to measurement issue (n=150)

As can be seen from the Table 4.2, the indicators have loadings of 0.50 and above. Even though this items has a loading below 0.70, it was maintained because it is already above the critical level of 0.40, and its removal would not bring about any significant change to either AVE or CR. Therefore, based on the criterion given by (Hair *et al*. 2014; Ab Hamid *et al*. 2017), all the remaining items are reliable to measure their respective reflective latent constructs.

Figure 4.2: Discriminants Validity Using HTMT Criterion



Form figure 4.2: it show that using the HTMT as a criterion involves comparing it to a predefined threshold. If the value of the HTMT is higher than this threshold, one can conclude that there is a lack of discriminant validity. Some authors suggest a threshold of 0.85 (Kline, 2011), in addition, (Gold *et al.*2001; Henseler *et al*. 2015) argued with it and proposed a value of 0.90. Based on this criterion, all the reflective latent constructs of this study have achieved discriminant validity (see Figure 4.2).

4.3 Hypotheses Testing for Direct Relationships

As can be seen in Figure 4.2, the model specifically analyzed direct relationships represented by hypotheses. H_{01}:There is no significant relationship between used of technologyand the decline of textile industry; H_{02}:There is no significant relationship between retrenchment strategy and the decline of textile industry; H_{03}:There is no significant relationship between remarketing of textile product and the decline of textile industry. Thus the assessment of the structural model using bootstrapping is reported in figure 4.3.

Figure 4.3: PLS Bootstrapping result

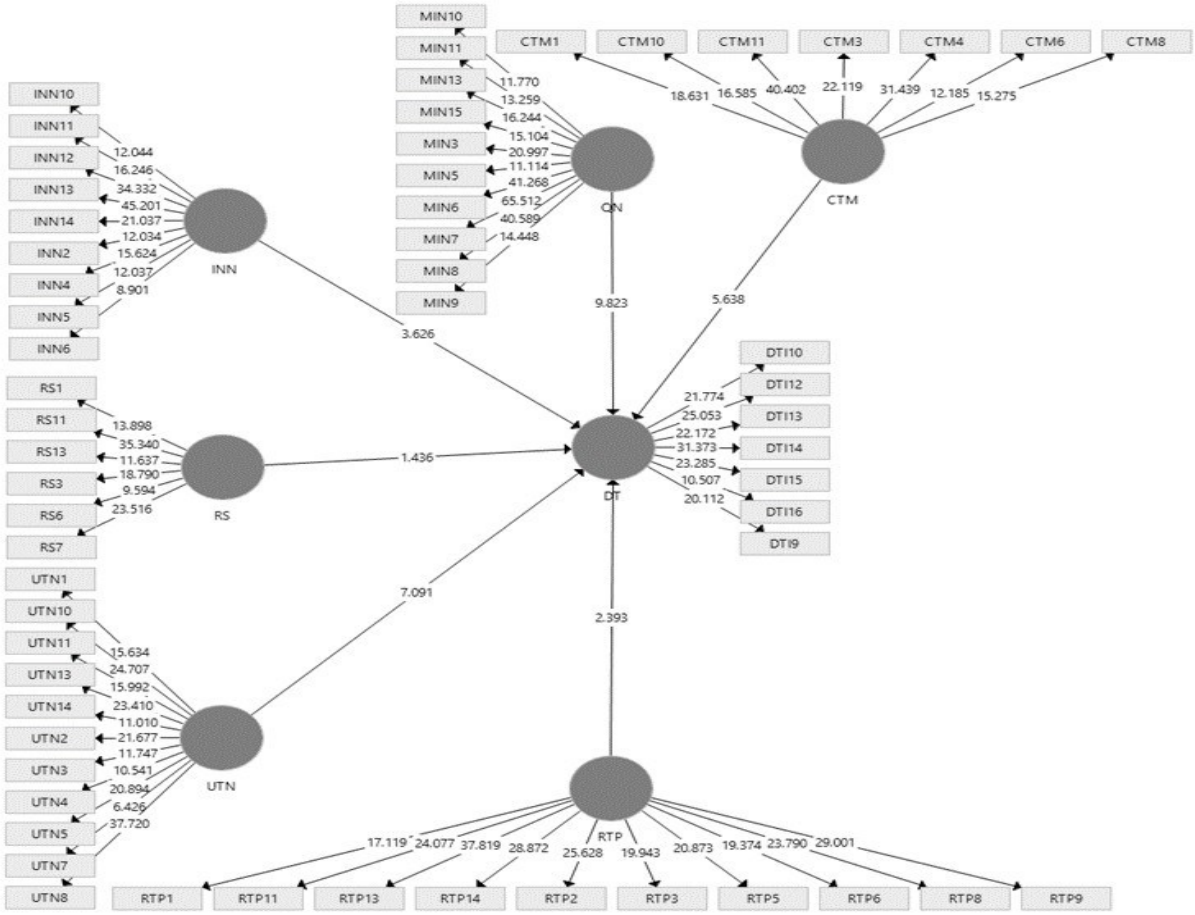


Table 4.3: *Test of hypotheses – Path coefficient*

Hypthoesis	Beta Value	Standard Dev	T Statistics	P Values	Decision
H_{01}	0.413	0.058	7.091	0.000	Not Supported
H_{02}	0.069	0.048	1.436	0.152	Supported
H_{03}	-0.147	0.062	2.393	0.017	Not Supported

$R^2 = 0.709$

Table 4.3 presented the results of the test of hypotheses. the use of technology was found to be positively related with the decline of textile product (Beta value = 0.413 t-value = 7.091 and p value =0.000). So also the retrenchment strategy was positive and have insignificant effect with decline of textile industry (Beta value = 0.069 t-value = 1.436 and p value =0.152), while the remarketing of textile product was found to be negative and significant with the decline of textile industry (Beta value = -0.147 t-value = 2.393 and p value =0.017).

In summary, from all the direct relationships between the latent exogenous and endogenous constructs, the two hypotheses was not supported empirically, while one hypothesis was supported.

Table 4.4: ***Coefficient of Determination for Direct Relationship: R-Squared***

Construct	R-Squared
Decline of Textile Industry (DT)	0.709

The R square stood at 0.709 which implies that about 71% variation in decline of textile industry in Kaduna metropolis is explained by exogenous variable of the study, while the remaining 29% is explained by the others constructs that this study do not covered.

Furthermore, R^2 is an accurate term that can presume values between 0 and 1, Backhaus *et al.,* (2003) state that no generalizable report can be made about adequate yardstick value of R2, conversely, the better R^2 is, the bigger the percentages of variance explained. In addition, According to by Cohen (1988), R^2 values for dependent latent variables are evaluated as follows: (0.26 substantial, 0.13 moderate, and 0.02 weak). Based on the assessment criterion suggested by Cohen (1988), the study R^2 here is considered substantial representing the influence of independent variable (change of management, innovation, quality of made in Nigeria) in explaining the decline of textile industry as the dependent variable respectively.

4.5 Effect size of the model

Having tested the hypotheses, it is of equally important to assess the effect size of each endogenous variable on the exogenous constructs. F square f^2 value is used to determine the effect size, as a rule of thumb f^2 values of 0.35, 0.15, and 0.02 are considered large, medium, and small, respectively. Therefore, effect size of this study was presented in the table 4.5 below. From the table 4.5 the effect size of RTP is 0.03 signifying the small effect size of the R^2 value excluded. UTN show the medium effect size of 0.26 and the QN is 0.34 signify large effect size, while RS show no effect size from the model.

Table 4.5: ***Effect Size for Direct Relationships: F-Square***

Constructs	R2 Square included	R2 Square excluded	f^2 DT	Effect Size
UTN	0.71	0.45	0.26	Medium
RS	0.71	0.70	0.01	None
RTP	0.71	0.68	0.03	Small

4.6 Discussion of Findings

In summary, from all the direct relationships between the latent exogenous and endogenous constructs the two hypotheses were not supported empirically, while one hypothesis was supported. The findings of this study were discussed based on the research objectives, which were hypothesized in accordance with the research questions that were earlier developed from the problem statement. This study aims to provide an insight into the decline of textile industry in the Nigerian context. The decline of textile industry scenario in Nigerian continuous to be a great concern to the researchers and the practitioners in the organized private sector. Moreover, as presumed, this decline affect the economic development of Nigeria, forming the poor and weak linkage among the various segments of the operations in the sector, as well as low operating capacities.

Therefore the study would look at the influence of the independents variable and it relationship with the dependent variable to discuss the result findings.

4.6.1 Relationship between used of technology and the decline of textile industry

Use of technology was also found to be positively related with the decline of textile product (Beta value = 0.413 t-value = 7.091 and p value =0.000). This research hypothesis on the use of technology to reverse the declining trend of textile manufacturing is validated in the earlier findings of Willianson (2017) which provided that textile machinery has the potential and capacity to increase production speeds while also improving the quality of product manufactured. The study noted that with new machinery the producers can manufacture faster, wider cloth, improved options on sales and increase amount of fibre produced at one time. This study of Yusuf (2015 and 2016) found that absence of technological upgradation and proper adaptation of modern plant and machinery in the art of textile production comparable to competition in developed economy has led to decline of textile industry which is consistent with current research effort. Similarly, the study of Dauda and Akingbade (2011) found that effectiveness of technology lead to improved performance of manufacturing industry. Though, the study of Jumeyo *et al.,* (2017) provided that industrial units cannot survive partly on the basis of cheap labour or intensive technology as dynamic business environment requires updated technological equipment.

4.6.2 Relationship between retrenchment strategy and te decline of textile industry

So also the retrenchment strategy was positive and have insignificant effect with decline of textile industry (Beta value = 0.069 t-value = 1.436 and p value =0.152). The findings of this research is consistent with the work of Ung, Brahmnna and Puah (2014) that firms in developing economices adopted retrenchment strategy as a survival strategy during declining period. However, Robbins and Pearce (1992); David (2013) found that retrenchment occurs when an organisation regroups through cost and asset reduction to improve sales and profits. Similary legal Hidimi Academy (2013) found that there is a significant positive relationship between retrenchment strategy and turnaround strategy but this current study found insignificant relationship between retrenchment and turnaround strategy and thereby supporting the null hypothesis posited earlier in the study.

4.6.3 Relationship between remarketing of textile product and the decline of textile industry

Remarketing of textile product was found to be negative and significant with the decline of textile industry (Beta value = -0.147 t-value = 2.393 and p value =0.017). Remarketing according to the findings of Kagnicioglu and Kathe (2016) is a process of extending product life span. The study of Durie (2014) found that remarketing strategy remains critical in textile production due to competitive and dynamic nature of clothing and apparel industry complexity in terms of technological, innovative development and quality of textile fabric require by customers globally and this is consistent the findings of this current study that states: There is a negative but significant relationship between remarketing and decline of textile manufacturing firms.

5.1 Conclusion and Recommendation

The study examined the revival strategies for revamping the declining textile manufacturing industry in Kaduna metropolis. Based on the results of the PLS-SEM (Partial Least Square – Structural Equation Modeling), textile industry decline is attributed to use of obsolete technology, poor marketing effort in selling textile products and retrenchment strategy did not appear to contribute to the decline of the

sector as seen in the findings. The awareness of the significance of textile industry is very high but little or no effort has been put in place to revamp the moribund sector. However, the findings reveal that textile firms that managed to survive in Nigeria are operating at 5% installed capacity.

In view of the current crisis faced by the industry, its outlook remains gloomy and therefore calls for pragmatic policies that will lead to both local and global restructuring of the industry. In general, the study established that revival strategies can lead to improved efficiency of the firms and extension of firms' longevity.

Based on the findings and conclusion drawn from the study, the following recommendations are made

(i) Adequate investment in technological upgradation that are more recent in the industry to produce quality textile fabric superior reliability at affordable prices thereby satisfying the needs of Nigeria consumers and buyers of textile products. The owners of textile firms and their managers must ensure that investment in textile technology is a priority and not a fashionable style, therefore top managers need to be clear about their strategic direction and when they should go for new technology. The firm executive should also acquire and installed superior plant and machinery, manpower training and skills necessary in handling textile machinery.

(ii) Retrenchment strategies is found to be insignificant and shows a negative result: thus, it is ideal for the firm to reduce unnecessary expenditure to secure high efficiency in firm operations by minimizing cost working capital improvement, reduction in inventory investment selling off redundant asset among others. But unnecessary laying off workforce should be discouraged as seen by most closed textile firms in Kaduna metropolis.

(iii) The organisation must ensure that better marketing effort is adopted in terms of quality of product, its price, promotional activities of textile fabric and availability of high quality textile products in local and international markets. This will help the industry to grow and be competitive in global market place.

5.2 Suggestions for Further Studies

The study can be replicated in Kano metropolis so that the results of a comparative analysis of the textile firms in Northern Nigeria can be made to determine if differences or similarities exist among ailing textile manufacturing firms. Further research should be carried out using higher sample size to determine if different result can be obtained.

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Appendix

The table below shows the list of Functional and Non-functional Textile Manufacturing Firms in Kaduna Metropolis

S/N	Name of Textile Firms	Town Situated	Staff Strength	Status
1	Worldwide garments	Kaduna	188	Non Functional
2	Untied Nigerian Textile Ltd Company	Kaduna	1200	Functional
3	Chellco 1 & 2	Kaduna	1655	Functional
4	Supertex	Kaduna	320	Non Functional
5	Finetex	Kaduna	1000	Non Functional
6	Nortex	Kaduna	1206	Non Functional
7	Arewa Textiles	Kaduna	1500	Non Functional
8	Kaduna Textile Mill Ltd	Kaduna	1655	Non Functional

Source: Report by the National Executive Council of NUTGWN to its 19th National Delegates' Conference in Abuja, March 2008, Epkunobi G.N (2010) and Abdul M. (2012), MAN (2019), Human Resources Department of Funtua, UNTL and Chellco textile firms and Yusuf, (2020).