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Editorial

Information Management and Business Review (IMBR) provides a unique platform to scholars around the world to share their knowledge and publish research work in the fields of information management, business, management and related disciplines. The work submitted for publication consideration in IMBR should address empirical and theoretical developments in the subjects related to the scope of the journal in particular and allied theories and practices in general. Scope of IMBR includes: subjects of finance, accounting, auditing, cost & management accounting, financial psychology, financial literacy, marketing, information management, human resource management, knowledge management, innovation, change management, enterprise management, e-commerce and information system. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to IMBR. It is IMBR policy to welcome submissions for consideration, which are original, and not under consideration for publication by another journal at the same time. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. The current issue of IMBR comprises of papers of scholars from Bangladesh, Uganda, South Africa, Nigeria, Pakistan & Saudi Arabia. Risks of climate change at coastal tourism, business process re-engineering and profitability, capital structure and profitability of manufacturing firms, working capital management and performance of industrial and consumer goods firms and how promotional advertisements can change the buying behavior of children are some of the major practices and concepts examined in these studies. Journal received research submission related to all aspects of major themes and tracks. All the submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer-reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. The current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

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PAPERS

Information Management and Business Review (IMBR)
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Risks of Climate Change at Coastal Tourism in Bangladesh: A Study on Cox's Bazar

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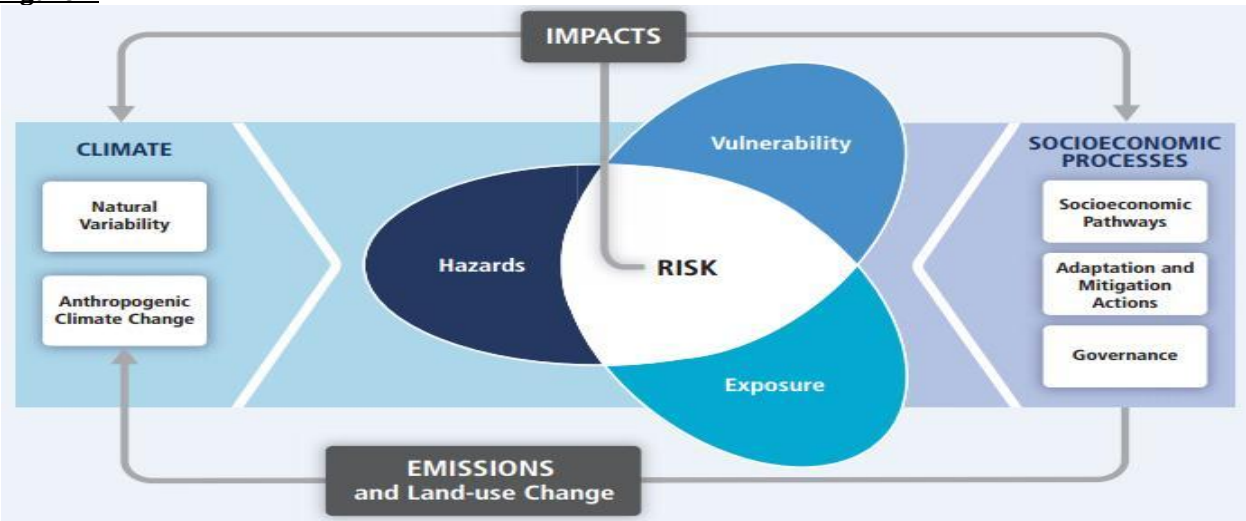
Abstract: This study is on 'Risk of climate change at coastal tourism in Bangladesh. The main aim of this research is to describe the risks associated with climate change that has an impact on tourism. The study uses primary data collected from the respondents (Domestic, Local and International Tourists) by using various methods like; observation, survey and questionnaire. This research mainly adopts with close-ended questionnaire. This study uses Five Point Likert scale to measure the intensity of risk. This research identifies various types of risk like Rise of sea level, Rise of temperature, Acidic Sea, Damage Property, Damage infrastructure, Damage Livelihood, Damage environmental resources, Inundation during Storm, Risky Road, Heat Waves, Coastal Floods, Droughts, Pollution, Leads Powerful Hurricanes, and Allergy. This study also explores some other risks including Rainstorm, Disrupt Food Supply, Mangrove Deforestation, Saline Intrusion, Scarcity of Fresh Water, Population Displacement, Water Intrusion, Undermining of Local Communities, Coastline Erosion, Fish Stocks Inundate, Rough weather, Hot Sunshine with their intensity.

Keywords: *Acidic, Climate, Coastal, Drought, Pollution,*

1. Introduction

Government of Bangladesh is going to establish an exclusive tourist zone on 1100 acres of land near Cox's Bazar. This zone is only for exclusive foreign tourists (https://www.eturbonews.com). United Nations World Tourism Organization Tourism 2020 Vision forecasts that international arrivals will be nearly 1.6 billion by the year 2020 (https://www.ukessays.com). Oceans and seas play a crucial role in developing transport and tourism activities and a rise in sea level and sea temperatures, as well as more acidic oceans, would threaten infrastructure and erode natural attractions (https://climate.copernicus.eu).

Figure 1



Source: https://coastadapt.com.au

Hazard refers to any potential occurrence of a natural or hsq4uman-induced physical event that may cause damage to property, infrastructure, livelihoods, service provision, environmental resources etc. Risk is the potential for consequence where something of value is at stake and where the outcome is uncertain, recognizing the diversity of values. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt. Exposure refers to the degree to which a system exposes to a given hazard (e.g. sea-level rise). As an example, a coastal community in low-

lying area can exposes to the certain degree of hazard of inundation during storm. Sensitivity refers to the degree to which a system is affected by, or responsive to hazard.

In other words, sensitivity captures the potential of a system. Hazard has direct impact on sensitivity. Criticality of the service determines sensitivity, (IPCC2014). Climate Change will increase the frequencies of extreme weather events such as floods, droughts, and heat waves in near future (https://ec.europa.eu). Global warming is now accelerating the rate of sea level rise (https://www.ucsusa.org). Climate change has significant implications for human health. Rising temperatures will likely lead to increased air pollution (https://www.ucsusa.org). Rising seas threaten to inundate low-lying areas and islands, damage property, and destroy ecosystems such as mangroves and wetlands that protect coasts against storms (https://www.nature.org). Sea level rise associated with climate change could displace tens of millions of people in low-lying areas – especially in developing countries (https://www.sciencedirect.com). The ocean is almost 40 percent more acidic than previous (https://www.sciencedirect.com). Smoke from wildfires degrades the air (https://www.sciencedirect.com). There have been large inter annual and inter decadal sea-surface temperature changes off the West Coast of North America during the past 80 years (McGrown, 1998). Climate change will affect the health of urban populations (Kovats & Akhtar, 2008).

The incidence of infection is sensitive to climate changes in areas of Southeast Asia, South America, and parts of Africa (Niessen & Martens, 1995). The reduced rainfall in southeast Australia has placed this region's urban and rural communities on escalating water restrictions, with anthropogenic climate change forecasts suggesting that this drying trend will continue (Beebe & Robert, 2009). Smallholder farmers faced frequent risks to their agriculture, including disease outbreaks, pest damage, and crop loss during storage and occurrence of extreme weather events (Harvey & Rakotobe, 2014). Radioactive effects of anthropogenic changes in atmospheric composition cause climate changes, in particular an intensification of the global water cycle with a consequent increase in flood risk (Milly & Wetherald, 2002). One of the major consequences of human-induced climate change and global warming is a greater occurrence of extreme weather events with potentially catastrophic effects for organizations, industries, and society (Linnenluecke & Andrew, 2010). Climate change over the past 30 years has produced numerous shifts in the distributions and abundances of species (McGowan & Cayan, 1980).

Research Gap: Change of climate that creates problems in selecting tourist destination. Tourists expect various types of facilities to select the destination. Tourism generates high level of employment, foreign direct investment, and foreign exchange for the borrowing countries. It is very effective tool for promoting sustainable development and poverty reduction. From this study, this country will be capable to identify the risk of climate change at costal tourism. Then Bangladesh will be able to minimize possible risk that will ensure quality service to tourists. Therefore, this research is important to students, researchers, and policy maker for social and economic development of Bangladesh.

Problem Statement: This study levels to find out the risk of climate change at coastal tourism in Bangladesh. Here, the consideration is on the "Risk of climate change at coastal tourism in Bangladesh perceived by respondents (Local, Domestic and International Tourists)". What are the risks of climate change creates problems in selecting tourist destination?

Broad Objective of the Study

Change of climate and risk of costal tourism in Bangladesh. Specific objectives are-

- To observe respondents' demographic profile,
- To observe individual tourist opinion towards risk of climate change,
- To make suggestions on the basis of findings,

2. Methodology of the Research

Type of Research: Type of this research is descriptive. This study is descriptive because it describes the characteristics of population in terms of factors that influence tourists' opinion mainly. A descriptive study is appropriate because it provides an accurate statement of the features of behavior, opinions, abilities, beliefs,

and knowledge of a particular individual, situation, or group. The sea temperature is raising, maximum respondents awarded about the rise of sea temperature.

Sources of Data: This study uses both primary and secondary data. Various types of tourists (Local, Domestic and International) are appropriate to collect primary data. This study utilizes various types of sources to collect secondary data like, websites, trade journal, articles, newspaper, magazine, internet, periodicals, books, reports, and publications of associations related to tourism and change of climate, which are relevant to subject matter.

Instruments: The research put the relevant data in the MS word, Excel extracted from the respondents for frequency distribution. The researcher then analyze the data using the statistical software namely Statistical Package for Social Science (SPSS).

Measurement and Scaling Technique: This study uses different types of scale to collect the descriptive data like; nominal, interval, and ratio scale. The Likert scale is appropriate because it saves time, and easy to answer.

Questionnaire Design and Pretesting: This research mainly adopts with close-ended questionnaire. This study uses all the three methods of pretesting, the questionnaire to minimize any error or bias namely planned field survey, personal interviews (face to face), and expert panel.

Sampling Design

Populations: Population of the study consists of current individual tourist, group tourist, local, domestic, and foreign tourists. Population of the study consists of elements and unit. Elements are all tourists in Coxes Bazar. Unit is each individual tourist. Elements are male and female. Sampling unit is each individual tourist.

Extent: The research extent is Costal area in Coxes Bazar.

Sampling Frame: Sampling frame includes gathering places of tourists.

Sampling Technique: Cluster sampling method is appropriate for the study. Each cluster contains various types of characteristics. This study uses multi stage sampling design. The first stage will cover geographic areas. Second stage will cover few tourist places and final stage will cover educational levels of the respondents.

Sample Size: This study uses convenience sample size.

Fieldwork or Data Collection: This research will ensure voluntary (not forced) participation of the respondents; assure the confidentiality and security of the respondent's personal and private information; will ensure honesty, transparency, and objectivity, without intruding. Harming, or adversely affecting the respondents; will not 1) sell and not influence opinions of the respondents, 2) mislead or pressurize a respondent when asking them to take part, 3) eat or smoke in front of the respondents, 4) make any comments on the respondent's answer and offer any comments or opinion of his own.

Data Preparation and Data Analysis: This is appropriate with quantitative analysis. As a part of quantitative analysis the popular statistical tools such as frequency distribution is accurate to reach to the objectives.

Reliability and Validity: This study ensures reliability by 1) adopting the findings of the previous studies to construct the questionnaire items and by 2) pretesting, the questionnaire, removing confusing words, and improving their clarity of the questions items, free from collector bias. This study ensures validity by confirming all the respondents are representative to provide the data. Researcher personally distributed all questions among subjects.

Statistical Analysis: For the present study, frequency distribution is applicable to explain the data. The nature of the research is quantitative. This study uses both primary and secondary data. Various types of methods like observation, survey, and questionnaire are accurate to collect primary data.

3. Results and Discussion

Total respondents were 45 for this study. The majority of the respondents were in 25-34 years old. Eighty-seven percent respondents were young, aged were 25-34 years, seven percent of the respondents were below 25 years old. Four percent of the respondents were 35-44 years old. Only two percent respondents were 45-60 years old. None of the respondents was over 60 years old. The highest numbers of respondents were male. Fifty-three percent respondents were male and forty-seven percent respondents were female. The ratio of the respondents is same.

Education: The educational status of the selected respondents in terms of percentage of literacy varying level was four percent had secondary (SSC) level education, seven percent had higher secondary (HSC) level education, seventy-one percent had graduation level education, and eighteen percent who had post-graduation level education. None of the respondents was illiterate. The highest numbers of respondents were graduates. That means educated people use these recreational services.

Income: The monthly income (Taka) status of the selected respondents in terms of percentage of income varying level was seven percent had less than 10,000, twenty percent had 10000-20000, thirty-eight percent had 20000-30000, 26.67% who had 30000-50000, two percent had 50000-80000, and seven percent had above 80000.

Occupation: The most of the respondents were students. Seventy-three percent respondents were students, sixteen percent were service holder, nine percent were from business, and two percent respondents were homemaker.

Religion: Hundred percent respondents were Muslim. None of the respondents was other religion.

Descriptive Statistics (Risk of Climate Change)

	N	Mean	Std. Deviation
Sea level rises due to climate change	45	3.5333	1.03573
Sea temperature rises	45	3.3111	1.01852
Sea is acidic	45	3.4444	1.42311
Risk of climate change is to damage property	45	3.7111	1.10005
It damages infrastructure	45	3.2222	1.25931
It damages livelihood	45	3.4667	1.15994
It damages environmental resources	45	3.5556	1.13929
Inundation during storm	45	3.8000	.91949
Road falls in risk	45	3.8222	1.13396
It causes heat waves	45	3.3333	1.08711
Coastal flood increases	45	3.6222	1.05073
Drought increases	45	2.8000	1.17937
Pollution increases	45	3.8889	1.04929
Precipitation increases	45	3.4444	1.13929
It lead powerful hurricane	45	2.6667	1.14812
People suffer from allergy	45	2.9111	1.18364
It causes rainstorm	45	3.5556	1.01255
It disrupts food supply	45	3.2667	1.07450
Mangrove deforestation	45	3.4667	1.35848
Saline intrusion	45	3.6444	1.29957
Coastal acquiescent	45	3.1333	1.12006
Scarcity of fresh water	45	3.7333	.93905

Population displacement	45	3.5556	1.09867
Subsistence of local communities	45	3.2667	1.15601
Coastline erosion	45	3.5111	.89499
Water intrusion	45	3.7556	1.02593
It reduces fish stocks	45	3.3111	1.14460
Inundate low-lying areas	45	3.7333	1.17551
Rough Weather	45	3.2444	1.13128
Hot sunshine	45	3.8667	.89443
Salt water intrusion	45	3.3556	1.17077
Valid N (list wise)	45		

The distribution of sea level is rising due to climate change is normal with mean 3.533 and standard deviation 1.04. The distribution of sea temperature rises is normal with mean 3.311 and standard deviation 1.02. The distribution of sea is acidic is normal with mean 3.444 and standard deviation 1.42. The distribution of risk of climate change is to damage property is normal with mean 3.711 and standard deviation 1.10. The distribution of it damages infrastructure is normal with mean 3.222 and standard deviation 1.26. The distribution of it damages livelihood is normal with mean 3.467 and standard deviation 1.16. The distribution of it damages environmental resources is normal with mean 3.566 and standard deviation 1.14. The distribution of inundation during storm is normal with mean 3.800 and standard deviation 0.92. The distribution of road falls in risk is normal with mean 3.822 and standard deviation 1.13. The distribution of it causes heat waves is normal with mean 3.333 and standard deviation 1.09. The distribution of coastal flood increases is normal with mean 3.622 and standard deviation 1.05. The distribution of drought increases is normal with mean 2.800 and standard deviation 1.18. The distribution of pollution increases is normal with 3.889 and standard deviation 1.05. The distribution of Precipitation increases is normal with mean 3.444 and standard deviation 1.14.

The distribution of it leads powerful hurricanes is normal with mean 2.667 and standard deviation 1.15. The distribution of people suffer from allergy is normal with mean 2.911 and standard deviation 1.18. The distribution of it causes rain storm is normal with mean 3.556 and standard deviation 1.01. The distribution of it disrupt food supply is normal with mean 3.267 and standard deviation 1.07. The distribution of mangrove deforestation is normal with mean 3.467 and standard deviation 1.36. The distribution of saline intrusion is normal with mean 3.644 and standard deviation 1.30. The distribution of coastal acquiescent is normal with mean 3.133 and standard deviation 1.12. The distribution of scarcity of fresh water is normal with mean 3.733 and standard deviation 0.94. The distribution of population displacement is normal with mean 3.556 and standard deviation 1.10. The distribution of subsistence of local communities is normal with mean 3.267 and standard deviation 1.16. The distribution of coastline erosion is normal with mean 3.511 and standard deviation 0.89. The distribution of water intrusion is normal with mean 3.756 and standard deviation 1.03. The distribution of it reduces fish stocks is normal with mean 3.311 and standard deviation 1.14. The distribution of inundating low-lying area is normal with mean 3.733 and standard deviation 1.18. The distribution of rough weather is normal with mean 3.244 and standard deviation 1.13.

The distribution of hot sunshine is normal with mean 3.867 and standard deviation 0.89. The distribution of salt water is normal with mean 3.356 and standard deviation 1.17. The sea level raises, the most of the respondents concerned about the rise of sea level. Thirty-eight percent respondents somehow agreed that the sea level has been rising. Twenty percent respondents strongly agreed with the portrayal, twenty-seven percent agreed with the description, thirteen percent respondents disagreed with the affirmation. Only two percent respondents strongly disagreed with the announcement. Total 85% respondents agreed that the sea level rise than previous. Global warming is now accelerating the rate of sea level rise (https://www.ucsusa.org). Thirty-three percent respondents somehow agreed that the sea temperature is rising; twenty-nine percent agreed with the description, eleven percent strongly agreed with the narration. Twenty-two percent respondents disagreed with the portrayal; four percent respondents strongly disagreed with the representation. Total seventy-three percent respondents agreed that the sea temperature has been rising. Oceans and seas play a crucial role in developing transport and tourism activities and a rise in sea level

and sea temperatures (https://climate.copernicus.eu). The sea is acidic; sixty-seven percent respondents agreed that the sea is acidic.

The highest numbers of respondents do strongly agreed that the sea is acidic (27%); twenty-four percent agreed with the description, sixteen percent respondents somehow agreed with the portrayal. Twenty percent respondents disagreed with the story; thirteen percent respondents strongly disagreed with the description. The ocean is almost 40 percent more acidic than previous (https://www.sciencedirect.com). It damages property, the most of the respondents agreed that the result of climate change is to damage property (80%), thirty-one percent respondents agreed with the portrayal; twenty-seven percent respondents strongly agreed with the announcement, twenty-two percent respondents somehow agreed with the description. twenty respondents disagreed with the story. Seas play a crucial role in developing transport and tourism activities and a rise in sea level and sea temperatures, as well as more acidic oceans, would threaten infrastructure and erode natural attractions and damage property (https://climate.copernicus.eu). It Damages infrastructure, sixty-two percent respondents agreed that the result of climate change is to damage infrastructure. Twenty percent respondents strongly agreed with the portrayal, thirty-one respondents agreed with the story, eleven percent respondents somehow agreed with the description. Thirty-one percent respondents disagreed with the argument; seven percent respondents strongly disagreed with the description. Hot weather, flooding, and other extreme weather events damage infrastructure (https://www.edf.org). It Damages Livelihood, seventy-one percent respondents agreed that it causes the damage of livelihood.

Twenty-two percent respondents strongly agreed with the portrayal, twenty percent respondents agreed with the story, and twenty-nine percent respondents somehow agreed with the description. Twenty-seven percent respondents disagreed with the story; two percent respondents strongly disagreed with the story. It damages environmental resources; eighty-two percent respondents agreed that climate change causes the damage of environmental resources. Twenty-seven percent respondents strongly agreed with the portrayal, thirty-one percent respondents agreed with the description, twenty-four percent respondents somehow agreed with the story. Sixteen percent respondents disagreed with the description; two percent respondents strongly disagreed with the portrayal. Inundation during storm: eighty-nine percent respondents agreed with the story. Twenty-four percent respondents strongly agreed with the description, thirty-six percent respondents agreed with the portrayal, twenty-nine percent respondents somehow agreed with the story. Eleven percent respondents disagreed with the portrayal, none of the respondents strongly disagreed with the story. Rising seas threaten to inundate low-lying areas (https://www.nature.org). Road falls in risk: 86% respondents agreed with the statement. Thirty-three percent respondents strongly agreed with the portrayal, thirty-one percent respondents agreed with the statement, twenty-two percent respondents somehow agreed with the story. Four percent respondents disagreed with the statement; two percent respondents strongly disagreed with the description. Hot weather, flooding damage infrastructure, put heavy burdens on electrical supplies and disrupt how people travel and communicate (https://www.edf.org).

Heat Waves: Seventy-four percent respondents agreed with the portrayal. Eleven percent respondents strongly agreed with the story, thirty-six percent respondents agreed with the story, twenty-seven percent respondents somehow agreed with the description. Fifteen percent respondents disagreed with the story; eleven percent respondents strongly disagreed with the portrayal. Extreme summer heat means more deaths during heat waves (https://www.sciencedirect.com). Heat is one of the top weather-related causes of death in the US, with an average of more than 600 deaths per year (https://blog.ucsusa.org).

Coastal Flood: Eighty-nine percent respondents agreed with the statement. Eighteen percent respondents strongly agreed with the statement, thirty-three respondents agreed with the statement, thirty-eight percent respondents somehow agreed with the statement. Four percent respondents disagreed with the statement; seven percent respondents strongly disagreed with the statement. Flooding damages infrastructure (https://www.edf.org).

Droughts: Thirty-nine percent respondents agreed with the statement. Four percent respondents strongly agreed with the statement, eighteen percent respondents agreed with the statement, twenty-seven percent respondents somehow agreed with the statement. Forty percent respondents disagreed with the statement;

eleven percent respondents strongly disagreed with the statement. Climate Change will increase the frequencies of extreme weather events such as droughts, and heat waves in near future (https://ec.europa.eu).

Air Pollution: Eighty-seven percent respondents agreed with the portrayal. Thirty-eight percent respondents strongly agreed with the description, thirty-one percent respondents agreed with the story, eighteen percent respondents somehow agreed with the description. Forty percent respondents disagreed with the portrayal; eleven percent respondents strongly disagreed with the story. It shows that climate change causes air pollution. Rising temperatures will likely lead to increased air pollution (https://www.ucsusa.org).

Precipitation: Eighty-two percent respondents agreed with the portrayal. Eighteen percent respondents strongly agreed with the description, thirty-six percent respondents agreed with the story, twenty-nine percent respondents somehow agreed with the affirmation. Seventeenth percent respondents disagreed with the description, none of the respondents strongly disagreed with the statement. August 2018 saw very dry conditions, indicated by much below average precipitation, relative humidity and soil moisture compared to the 1981-2010 average in large regions to the north and east of the Black Sea and to the south and east of the Caspian Sea, in northeastern Siberia, central and eastern Mexico (https://climate.copernicus.eu).

Hurricanes: Ninety-one percent respondents agreed with the description. Eighteen percent respondents strongly agreed with the narration, twenty-nine percent respondents agreed with the story, forty-two percent respondents somehow agreed with the portrayal. Four percent respondents disagreed with the story; seven percent respondents strongly disagreed with the description. The increased evaporation of water is like fuel for storms, exacerbating extreme weather events, such as hurricanes (https://www.sciencedirect.com). People have been suffering from allergy, fifty-three percent respondents agreed with the narration. Two percent respondents strongly agreed with the account, twenty-nine percent respondents agreed with the assertion, twenty-two percent respondents somehow agreed with the narration. Thirty-four percent respondents disagreed with the description; thirteen percent respondents strongly disagreed with the story. Rising temperatures will likely lead to increased air pollution, a longer and more intense allergy, heavier rainstorms and flooding. All of these changes pose serious, and costly, risks to public health (https://www.ucsusa.org). Insect borne diseases are increasing, eighty percent respondents agreed with the story. Twenty percent respondents strongly agreed with the narration, thirty-six percent respondents agreed with the story, twenty-four percent respondents somehow agreed with the portrayal. Eighteen percent respondents disagreed with the narration, 0% respondents strongly disagreed with the representation. Rising temperatures will likely the spread of insect-borne diseases (https://www.ucsusa.org).

Heavy Rainstorm: Eighty percent respondents agreed with the statement. Twenty percent respondents strongly agreed with the portrayal, thirty-six percent respondents agreed with the description, twenty-four percent respondents somehow agreed with the story. Thirteen percent respondents disagreed with the statement; seven percent respondents strongly disagreed with the description. It disrupts our food supply seventy-three percent respondents agreed with the story. Twenty-nine percent respondents strongly agreed with the portrayal, twenty-nine percent respondents agreed with the story, fifteen percent respondents somehow agreed with the portrayal. Fifteen percent respondents disagreed with the story; twelve respondents strongly disagreed with the description. It causes our mangrove deforestation seventy-six percent respondents agreed with the portrayal. Twenty-seven percent respondents strongly agreed with the story, forty percent respondents agreed with the description, nine percent respondents somehow agreed with the story. Twelve percent respondents disagreed with the story; twelve respondents strongly disagreed with the portrayal.

As deforestation increases, people may find that some groups of golden-headed lion tamarind monkeys, separated into tree 'islands', adapt better to climate change than others (https://www.sciencedirect.com). It causes saline intrusion, seventy-four percent respondents agreed with the portrayal. Eleven percent respondents strongly agreed with the story, sixteen percent respondents agreed with the description, forty-seven percent respondents somehow agreed with the portrayal. Four respondents disagreed with the story; seven respondents strongly disagreed with the portrayal. It causes coastal acquiescent, eighty percent respondents agreed with the story. Sixteen percent respondents strongly agreed with the fact, forty-four

percent respondents agreed with the description, twenty percent respondents somehow agreed with the portrayal. Eighteen percent respondents disagreed with the story; two percent respondents strongly disagreed with the story. It creates problem on fresh water resources, ninety-one percent respondents agreed with the fact.

Twenty-six percent respondents strongly agreed with the story, twenty-nine percent respondents agreed with, the portrayal, thirty-six percent respondents somehow agreed with the description. Seven percent respondents disagreed with the story; two percent respondents strongly disagreed with the description. It causes population displacement, eighty percent respondents agreed with the story. Fifteen percent respondents strongly agreed with the statement, forty-five percent respondents agreed with the fact. Twenty percent respondents somehow agreed with the description. Eighteen percent respondents disagreed with the story; two percent respondents strongly disagreed with the description. Recreation and tourism industries are weather-dependent – with many planning based on historic weather patterns, which climate change will disrupt. As we move into an era in which climate change impacts are all around the people, adapting to these changes quickly will be a key for all sectors of the global economy (https://www.sciencedirect.com). It causes undermining subsistence of local communities, ninety-one percent respondents agreed with the description. Twenty-six percent respondents strongly agreed with the narration, twenty-nine percent respondents agreed with the representation, thirty-six percent respondents somehow agreed with the account. Seven percent respondents disagreed with the story; two percent respondents strongly disagreed with the explanation. It causes coastline erosion, seventy-six respondents agreed with the description. Nine percent respondents strongly agreed with the statement, thirty-one percent respondents agreed with the statement, thirty-six respondents somehow agreed with the statement. Twenty percent respondents disagreed with the narration; four percent respondents strongly disagreed with the story. It reduces fish stocks, eighty-seven percent respondents agreed with the narration.

Twenty-nine percent respondents strongly agreed with the description, forty-two percent respondents agreed with the story, sixteen percent respondents somehow agreed with the portrayal. Nine percent respondents disagreed with this argument; Four percent respondents strongly disagreed with the announcement. Warming seas has been reducing the fish stock (https://www.sciencedirect.com). It causes inundate low-lying areas, seventy-eight percent respondents agreed with this assertion. Sixteen percent respondents strongly agreed with the affirmation, twenty-nine percent respondents agreed with the narration, thirty-three percent respondents somehow agreed with the description. Thirteen percent respondents disagreed with the account; nine percent respondents strongly disagreed with the portrayal. Sea level rise associated with climate change could displace tens of millions of people in low-lying areas, especially in developing countries. It causes rough weather, eighty-nine percent respondents agreed with the narration. Eighteen percent respondents strongly agreed with the description, thirty-three respondents agreed with the assertion, thirty-eight percent respondents somehow agreed with the description. Eighteen percent respondents disagreed with the portrayal; four percent respondents strongly disagreed with the representation. It causes hot sunshine, ninety-four percent respondents agreed with the narration. Twenty-two percent respondents strongly agreed with the announcement, fifty-four respondents agreed with the description, eighteen percent respondents somehow agreed with the story. Four percent respondents disagreed with the description; two percent respondents strongly disagreed with the tracing. Duration of Sunshine in 2018 was exceptionally high across many parts of Europe. Some regions experienced 20% more, including the Netherlands, Germany, Poland, Norway, Sweden, and mainland Britain.

4. Conclusion

Tourism contributes to economic development and social welfare. It offers unique attractions – including various culture, subculture, and natural places. Tourism industry contains various types of industries that contribute to national GDP-like photography, natural resources, leisure, and recreational industry. Each industry has unique contribution to economic growth. Therefore, tourism is important to each country. The marketers' task is to explore the needs/benefits of tourism and present it to tourist. Here, the marketers' challenge is to minimize negative impact. Policy maker should need to know about the risk of climate change and minimization procedures. This research identifies various types of risk like Rise of sea level, Rise of temperature, Acidic Sea, Damage Property, Damage infrastructure, Damage Livelihood, Damage

environmental resources, Inundation during Storm, Risky Road, Heat Waves, Coastal Floods, Droughts, Pollution, Leads Powerful Hurricanes, and Allergy. This study also explores some other risks including Rainstorm, Disrupt Food Supply, Mangrove Deforestation, Saline Intrusion, Scarcity of Fresh Water, Population Displacement, Water Intrusion, Undermining of Local Communities, Coastline Erosion, Fish Stocks Inundate, Rough weather, Hot Sunshine with their intensity.

5. Recommendations

Tourism industry is one of the fastest growing sectors not only in Bangladesh but also in the whole world playing the crucial role in their economy. Like other countries these sector can prove as a key player in recreational sector. Though government of Bangladesh have already started their journey in this way, there needs a lot of changes and improvements to be a friendly actor. This study detects risks of climate change on costal tourism in Bangladesh, now this country will be able to minimize possible risk that will ensure quality service to tourists. Therefore, this research is important to students, researchers, and policy maker for social and economic development of Bangladesh. Some sorts of action are necessary to improve the present condition of climate change:

- To reduce the tree cutting at the coastal area,
- To avoid the waste dumping at the riverside of Bakkhali (Bangladesh),
- To remove the use of poly –ethylene materials like packet of chips,
- To remove plastic water bottle and others from the sea beach/costal reason, to monitor the water quality and reduce the pollution,
- To plan for trees/ forest keeping at the coastal region according to the percentage of forest required at the costal maintained and balancing environmental operation at this area,
- To save the wild animal and nature by stepping the policy/rule at the coastal region,
- To remove Roinga, who have come from Myanmar (They are polluting environment),
- To eliminate hill cutting,
- To increase awareness among people,
- To introduce proper waste management system,
- To reduce the uses of chemical at land,
- To improve tourism management system,

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Appendix-1

Table 1: Descriptive Statistics of the Selected Characteristics of the Interviewee

Characteristics	Categories	Respondents	Percentage
Age	Below 25 Years	03	07%
	25-34 Years	39	87%
	35-44 years	02	04%
	45-60 years	01	02%
	Over 60 years	00	00%
Gender	Male	24	53%
	Female	21	47%
Education	PhD	00	00%
	Post Graduate	08	18%
	Graduation	32	71%
	HSC	03	07%
	SSC	02	04%
	Primary School	00	00%
	Literate	00	00%
	Others	00	00%
Income	Less Than 10000	03	07%
	!0000-20000	09	20%
	20000-30000	17	38%
	30000-50000	12	27%
	50000-80000	01	02%
	Above 80000	03	07%
Occupation	Student	33	73%
	Service	07	16%
	Business	04	09%
	Others	01(House Wife)	02%
Religion	Muslim	45	100%
	Hindu	00	00%
	Other	00	00%

Source: Field Study

Table 2: Responses Concerning Tourist Attitude towards Risks of Climate Change at Coastal Tourism in Bangladesh

The score for each statement could range from, 1 to 5. For the positive/negative statement & here,
1= Strongly Disagree, **2=** Disagree, **3=** Somehow Agree, **4=** Agree, **5=** Strongly Agree

Opinion About Risk of Climate Change	1	2	3	4	5
1. Do you think the sea level raise?	01	06	17	12	09
	02%	13%	38%	27%	20%
2. Do you think the sea temperature raise?	02	10	15	13	05
	4%	22%	33%	29%	11%
3. Do you think the sea is acidic?	06	07	09	11	12
	13%	20%	16%	24%	27%
4. Does it damage property?	00	09	10	14	12
	00%	20%	22%	31%	27%
5. Does it damage infrastructure?	03	14	05	14	09
	7%	31%	11%	31%	20%
6. Does it damage livelihood?	01	12	13	09	10
	02%	27%	29%	20%	22%
7. Does it damage environmental resources?	01	07	11	14	12
	02%	16%	24%	31%	27%
8. Does the area become inundation during storm?	00	05	13	16	11
	00%	11%	29%	36%	24%
9. Does the road fall in risk?	02	04	10	14	15
	5%	9%	22%	31%	33%
10. What is the present condition of heat waves?	05	07	12	16	05
	11%	15%	27%	36%	11%
11. Do you think coastal flood increase?	03	02	17	15	08
	07%	04%	38%	33%	18%
12. Do you think droughts have been increase?	05	18	12	08	02
	11%	40%	27%	18%	04%
13. Do you think air pollution increase?	01	05	08	14	17
	02%	11%	18%	31%	38%
14. Do you think precipitation increase?	00	08	16	13	08
	00%	18%	36%	29%	17%
15. Do you think it leads powerful hurricanes?	08	13	19	02	03
	18%	29%	42%	04%	7%
16. Do you think people have been suffering from allergy?	06	15	10	13	01
	13%	34%	22%	29%	2%
17. Do you think insect borne disease increase?	01	08	11	16	09
	2%	18%	24%	36%	20%
18. Are you observing heavy rainstorm?	03	06	11	16	09
	07%	13%	24%	36%	20%
19. Do you think it disrupts our food supply?	05	07	07	13	13
	12%	15%	15%	29%	29%
20. Do you think it causes our mangrove deforestation?	05	05	04	18	12
	12%	12%	09%	40%	27%
21. Do you think it causes saline intrusion?	02	10	21	07	05
	04%	22%	47%	16%	11%
22. Does it causes coastal acquiescent?	01	08	09	20	07
	2%	18%	20%	44%	16%
23. Do you think it creates problem on fresh water resources?	01	03	16	13	12
	2%	7%	36%	29%	26%
24. Do you think it causes population displacement?	01	08	09	20	07
	02%	18%	20%	45%	15%
25. It causes undermining subsistence of local communities.	01	03	16	13	12

	02%	07%	36%	29%	26%
26 It causes coastline erosion.	02	09	17	14	04
	4%	20%	36%	31%	9%
27. It causes salt-water intrusion.	01	06	13	21	04
	2%	13%	29%	47%	9%
28. It causes fish stocks.	02	04	07	19	13
	04%	09%	16%	42%	29%
29. It causes inundate low-lying areas.	04	06	15	13	07
	9%	13%	33%	29%	16%
30. It causes rough weather	02	08	09	22	04
	4%	18%	20%	49%	9%
31. It causes hot sunshine.	01	02	08	24	10
	02%	04%	18%	54%	22%

Source: Field Study

Appendix-2

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	T	DF	Sig. (2-tailed)	Mean Difference	Lower	Upper
Sea level rises due to climate change	22.885	44	.000	3.53333	3.2222	3.8445
Sea temperature rises	21.808	44	.000	3.31111	3.0051	3.6171
Sea is acidic	16.236	44	.000	3.44444	3.0169	3.8720
Risk of climate change is to damage property	22.631	44	.000	3.71111	3.3806	4.0416
It damages infrastructure	17.164	44	.000	3.22222	2.8439	3.6006
It damages livelihood	20.049	44	.000	3.46667	3.1182	3.8152
It damages environmental resources	20.935	44	.000	3.55556	3.2133	3.8978
Inundation during storm	27.723	44	.000	3.80000	3.5238	4.0762
Road falls in risk	22.611	44	.000	3.82222	3.4815	4.1629
It causes heat waves	20.569	44	.000	3.33333	3.0067	3.6599
Coastal flood increases	23.125	44	.000	3.62222	3.3065	3.9379
Drought increases	15.926	44	.000	2.80000	2.4457	3.1543
Pollution increases	24.862	44	.000	3.88889	3.5736	4.2041
Precipitation increases	20.281	44	.000	3.44444	3.1022	3.7867
It leads powerful hurricanes	15.581	44	.000	2.66667	2.3217	3.0116
People suffer from allergy	16.498	44	.000	2.91111	2.5555	3.2667
It causes rainstorm	23.556	44	.000	3.55556	3.2514	3.8598
It disrupts food supply	20.394	44	.000	3.26667	2.9439	3.5895
Mangrove deforestation	17.119	44	.000	3.46667	3.0585	3.8748
Saline intrusion	18.812	44	.000	3.64444	3.2540	4.0349
Coastal acquiescent	18.766	44	.000	3.13333	2.7968	3.4698
Scarcity of fresh water	26.669	44	.000	3.73333	3.4512	4.0155
Population displacement	21.709	44	.000	3.55556	3.2255	3.8856
Subsistence of local communities	18.956	44	.000	3.26667	2.9194	3.6140
Coastline erosion	26.317	44	.000	3.51111	3.2422	3.7800
Water intrusion	24.556	44	.000	3.75556	3.4473	4.0638
It reduces fish stocks	19.406	44	.000	3.31111	2.9672	3.6550
Inundate low-lying areas	21.305	44	.000	3.73333	3.3802	4.0865
Rough Weather	19.239	44	.000	3.24444	2.9046	3.5843
Hot sunshine	29.000	44	.000	3.86667	3.5980	4.1354

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Business Process Re-Engineering and Profitability in the Nigerian Oil and Gas Industry: The Mediating Influence of Operational Performance

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Abstract: The aim of this study was to operationalize and test a conceptual model to measure the effect of Business Process Re-engineering (BPR) implementation on profitability in the Nigerian oil and gas industry. Based on a framework from Al-Mashari and Zairi, these objectives were achieved using the following procedures: reliability and validity analysis, factor analyses (exploratory factor analysis-EFA and confirmatory factor analysis-CFA) and Structural Equation Modelling (SEM). The model contrived therefore confirmed the positive influence of BPR on profitability, as well as the mediating influence of operational performance in the Nigerian Oil and Gas industry. Specifically, the structural model shows the positive effect of organizational structure and IT Infrastructures on both profitability and operational performance. However, SEM failed to establish the relationship between management competence and support and profitability. The study is expected to enhance the adoption and successful implementation of BPR programmes in the oil and gas industry.

Keywords: *Business Process Re-engineering; CSFs; Profitability; Operational Performance, structural equation modeling.*

1. Introduction

It is often argued that there is no generally agreed definition of business process re-engineering (BPR). However, Khong and Richardson (2003), define BPR as an approach to attain radical improvement in various performance matrixes. The objective of BPR is to look for innovative methods to combine people, tasks, and materials and restructure information technology in all the processes to achieve organization's objectives (Asikhia and Awolusi, 2015; Hammer, 1990). BPR has gained significant attention as a management technique strategy during the past years. This might not be unconnected with the increasing challenges of businesses worldwide, where organizations are expected to respond swiftly in making strategic changes to sustain their competitive advantage (Ringim, Razalli, and Hasnan, 2011; Khodakaram, Mohammad, and Ahmad, 2010). The current economic recession, globalization, and rapid development of information technology (IT) often justifies the present scrabbles for new strategies for success in a dynamic environments (Al-Mashari and Zairi, 1999; Salaheldin, 2009). In addition, many oil and gas companies now strive to reduce costs and increased profitability to create a competitive strategy (Hammer and Champy, 1993). Accordingly, most oil and gas companies seek to adopt management techniques that have been successful in another place, via radical improvement (Al-Mashari and Zairi, 1999; Salaheldin, 2009). One of such management techniques is BPR (Salaheldin, 2009).

BPR is a fundamental rethinking, as well as, a drastic restructure of processes to realize improvements various performance indices, like cost, quality, speed and service (Ozcelik, 2010; Ranganathan, & Dhaliwal, 2001; Al-Mashari and Zairi, 1999). There has been fundamental changes in the world oil and gas industry (Cabin and Grant, 1996) in the last twenty years: the increasing influence of producer countries, nationalization of oil reserves of the majors (Exxon, Shell, and BP), increasing pressure from investors and the financial community for improved return to shareholders, the increasing popularity of state-owned companies have contributed to BPR adoption and implementations (Al-Mashari et al., 2001). The key features of business re-engineering by the oil and gas companies are: reduction in excess capacity, reduction in personnel, reorienting their goals around shareholder value maximization, shifting from geographical organizational structure to worldwide product divisions (Adeyemi and Aremu, 2008; Ringim et al., 2011). However, despite the noteworthy growth in BPR adoption, most of the companies implementing BPR do not often accomplish their projected result. Studies like Hall et al. (1993) and Chiplunkar at al. (2003) estimate 50-70 percent failure rates. Many of these previous studies sustained these mixed findings and recognised the prospect for conducting studies that will ascertain the critical factors for BPR implementation success.

As well as establish the relationship between operational performance and organizational performance (Hammer and Champy, 1993). In addition, this high failure rates, according to Ringim et al. (2011) is ascribed to poor implementation of BPR. Consequently, some critical success factors must be identified and analyzed for successful BPR implementations (Hall et al., 1993; Ringim et al., 2011). In addition, establishing the relationship between major BPR imperatives and business performance as a way of forestalling BPR project failure becomes important, thus investigating the CSFs of BPR and profitability could be a step in the right direction (Ringim et al., 2011). Moreover, measuring CSFs of BPR scientifically is imperative, because, what can be measured gets done well, with the possibility of repeated fed back and rewards (Fields & Atiku, 2015; Mustapha, Fakokunde and Awolusi, 2014; Asika and Awolusi, 2013). Khong and Richardson (2003) also believe that a deeper appreciation and understanding of CSFs of BPR through scientific inquiry is desirable. The intention of the research on which this study is anchored was to test a conceptual model to measure the effect of the CSFs of BPR on organizational performance in the Nigerian oil and gas industry using multivariate analytical technique. The third section discusses the methodology. The paper starts with the identification of the various CSFs of BPR in literature.

They then categorised these CSFs into various subgroups, similar to Al-Mashari and Zairi (1999) categorisation. In addition, various views on BPR implementations and its effects on business performance (organizational and operational performances) were tested to show the imperatives of successful BPR efforts. The study shows the need for a conceptual model to measure the success of BPR efforts in the oil and gas industry. Consequently, the main objective of this study was to operationalize a BPR model, based on a conceptual framework developed by Awolusi (2013), and to test the contrived model, by examining specific relationships between the CSFs of BPR and profitability in the Nigerian oil and gas industry. Moreover, the study also investigated the mediating influence of operational performance on profitability of companies operating in the oil and gas industry. This study was motivated by the submission of Awolusi (2013) and Khong and Richardson (2003) that, despite some research attempts, a model to test the success of BPR implementation in the oil and gas industry has not been fully established. The second section of this study discussed the conceptual framework developed by Awolusi (2013). The fourth section analyses the results and discussions, by focusing on the operationalizing and testing of the conceptual framework in an attempt to recommend an improved model to measure BPR implementation success in the oil and gas industry.

2. Literature Review

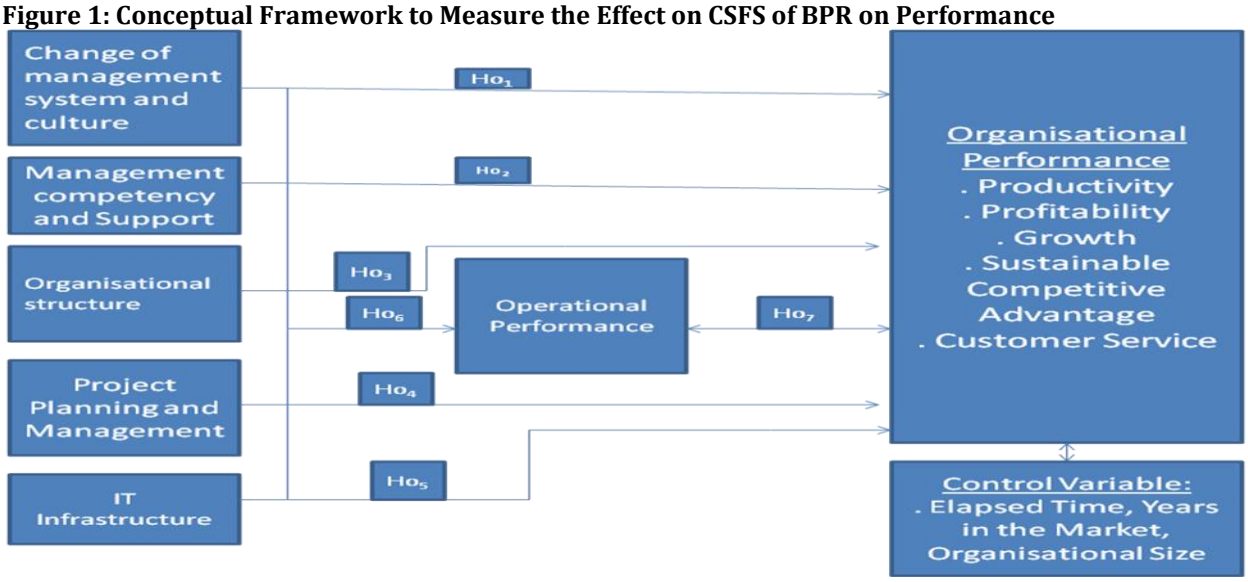
The Conceptual Model: BPR approach was developed by practitioners and emerged in the early 1990s; consequently, BPR can mostly be linked with the most relevant theoretical areas. BPR can be inferred from prevailing theories within: organization theory, Marketing, Internationalization theories and Informatics (Ahmed et al., 2007; Tilley, 1996). This is due to the fact that much of BPR focuses on the following as far as the organizational aspects is concerned: organizational change, organizational culture & power, organizational complexity, theories on departmentalization, and human resource management (Ahmed et al., 2007; Maldonado, 2009). BPR, also called business process reorganization or flow innovation, is a concept in the change management domain (Ahmed et al., 2007). Consequently, this research is anchored on change management theories. According to the theory of constraints (TOC), a change management theory, the objective is to improve organizational performances undergoing series of interdependent processes (Ahmed et al., 2007).

It scrutinizes the process as complete system, recognizing and resolving the bottlenecks, or constraints (Iles and Sutherland, 2001). Theory of Constraints is one of the three examples of process Modelling approaches. Others are influence diagrams and process flows. According to Davenport (1993a), the consideration of BPR posits competitive advantage and customer focus, and "value-adding" as important factors determining business processes (Khong and Richardson, 2003; Maldonado, 2009). Under internationalization perspective, are resource-based view, institutional theory, transaction cost analysis (TCA), and Dunning's eclectic framework. The resource-based theory is aimed at improving the core competence of the organization in the process of developing sustainable competitive advantage (Richard, 1992). The resource-based view (RBV) places firms' resources (valuable) as a critical ingredient for achieving competitive advantage (Hoopes, Madsen, and Walker, 2003; Porter, 1980; Rumelt, 1991). The interaction among institutions, organizations, and strategic choices are the main focus of institutional theories.

The relationships between institutions and organizations (Smith, 2003; Brouthers and Hennart, 2007), is posits to result into strategic choices for the successful implementation of the BPR (Smith, 2003). Transaction cost analysis posits that BPR efforts are implemented in most organisations to reduce the transaction costs (Ringim et al., 2011). The approach links some environmental factors with human factors to analyse how firms can categorize transactions to lessen the costs of transactions (Ahmed et al., 2007). Lastly, Dunning (1993) proposes that the three traditional perspectives were singly incomplete in explaining the mode to internationalization BPR as a management techniques (Brouthers and Hennart, 2007). Dunning's eclectic theory on the other hand identifies ownership, location and internalization advantages. Dunning's eclectic theory try to elucidate the transfer of firm-specific ownership advantages (Brouthers and Hennart, 2007), towards the successful implementation of BPR. Informatics, as an imperatives in the use of information technology (IT) for supporting process-based firms, is posited on the basis that IT is required to attain the best outcomes in BPR implementation (Davenport, 1993b; Ovenden, 1994); most importantly, the redesign stage of BPR implementations (Bhatt, 2000).

The Conceptual Model: Based on a framework from Al-Mashari and Zairi (1999), Awolusi (2013) made an attempt to advance a framework to measure the success of BPR efforts in the Nigerian oil and gas industry. The study adopted a survey research design, via the use of questionnaires to elicit information from the respondents. The population was made up of senior and management employees in the production and exploration sector of the Nigerian oil and gas industry. To establish the validity and reliability of constructs, questionnaires were first of all distributed to few experts and three professors in management studies as a pilot test. Recommendations from these set of respondents were analysed after the required modifications and then, the final validated version was acknowledged. The study adopted a multi-stage sampling technique in selecting the participating companies (Exploration and Production, Multinationals and Local companies) and the final respondents in the participating companies. In all, a total sample size of 550 was arrived at.

Figure 1: Conceptual Framework to Measure the Effect on CSFS of BPR on Performance



Source: Adapted from Awolusi, 2013a

Although the various measures incorporated in the proposed model (figure 1) was corroborated and adopted from past studies, nevertheless, each item were evaluated, discussed, and adapted by management experts in BPR adoption and implementations in the Nigeria oil and gas industry.

Critical Success Factors (CSFs) of BPR: There are varied meaning of CSFs of BPR in literature, however, Ahmed et al. (2007) defined CSFs as those things a firm must get right for the implementation of BPR to be successfully. In focusing his study, Awolusi (2013) listed some factors (Figure 1), as derived from various studies on BPR implementation. Consequently, the factors were categorised into five subgroups, similar to Al-Mashari and Zairi (1999) categorization. These dimensions were: Change of management systems and

culture; Organisational structure; management competency and support; IT infrastructure; and project planning and management.

Operational Performance and Organizational Performance: As a mediating variable, operational performance was defined as the internal performance of a company in terms of waste reduction, cost, quality improvement, improving employee relations, flexibility, productivity improvement and operating procedures (Salaheldin, 2009). This construct was termed primary measure, because it trails directly the implementation stage. On the other hand, organizational performance, a secondary measure, was initially represented by financial measures such as profitability, growth, productivity; and non-financial variables such as customer services and sustainable competitive advantage. However, many studies have established the link between various performance indices and BPR efforts (Asika and Awolusi, 2013; Awolusi, 2013b; Awolusi, 2013c; Ascari et al., 1995; Smith, 2003). These studies were aimed at helping firms improve their competitiveness, by improving operations and processes. In addition, the output of these studies demonstrated the important role of BPR implementation efforts in improving various performance measures (e.g. operational and profitability). Therefore, it is hypothesized that:
Ho_1: Critical success factors of BPR has no significant relationship with operational Performance
Ho_2: Critical success factors has no significant relationship with profitability
Ho_3: Operational performance has no significant difference with profitability

These hypotheses were motivated by Khong and Richardson (2003) and Ozcelik (2010) postulations on the effect of the BPR on operational performance, and its consequential relationships with profitability.

3. Methodology

The objective of the research reported in this paper was to operationalize a model of a successful BPR implementation, and to test the model, via modeling (using structural equation modeling-SEM) the CSFs of BPR on performance measures in the oil and gas industry. These objectives were achieved using the following procedures: factor analyses (exploratory factor analysis and confirmatory factor analysis) and Structural Equation Modelling (SEM) (Asikhia and Awolusi, 2015; Mustapha et al., 2014; Asika and Awolusi, 2013; Awolusi, 2013b; Awolusi, 2013c). Since the focus of this paper was the analysis of what was done after the development of the conceptual framework, consequently, additional analysis was conducted to determine the causal path analysis using the Pearson's product correlation coefficient (PPMC) and SEM. The first stage of this study was to develop a conceptual framework to measure the efficacy of BPR implementations in the oil and gas industry using a survey research design. Consequently, exploratory factor analysis (EFA) was used because the number of CSFs of BPR that were necessary to explain the interrelationships among the set of variables were not known, in the Nigerian context, and also the need to determine the underlying dimensions of the constructs (Fields & Atiku, 2015). Based on a framework from Al-Mashari and Zairi (1999), Awolusi (2013) conceptual framework was developed to measure the success of BPR implementation efforts in the Nigerian oil and gas industry.

From a population of 55,305, 550 questionnaires were administered to randomly selected respondents in the participating companies, with 422 completed questionnaires returned (Asikhia and Awolusi, 2015). 20 responses were discarded, due to incorrect fillings, leaving 402 valid responses for statistical analysis. This represented a response rate of 62%. Again, the target population and sample size were justified based on the fact that the participating companies represent over 85% of the total oil production in Nigeria (Asikhia and Awolusi, 2015). In items measuring CSFs of BPR implementation, participants were asked to rate the degree of effectiveness of 32 items measuring their company's BPR strategies. In business performance, they were asked to rate 6 and 26 variables in relation to their companies' operational and organizational performances respectively. The questions were based on an interval scale from 1 to 5. In the scale 1 represents strongly disagree, 2 denotes disagree, 3 represents neither disagree nor agree, 4 denotes Agree, and lastly, 5 represents strongly agree and n/a (not applicable) was added so as not to force the respondents. The data were analyzed with the statistical package for social scientist (SPSS) version 15 and AMOS 23.

4. Results and Discussion of Findings

Reliability and Validity Analysis: The 402 valid responses were subjected to a principal component factor analysis using a Varimax normalized rotation. The exploratory factor analysis produced a variance explained of 64%, indicated that the measuring tool to measure CSFs of BPR was valid. Cronbach's alpha (α) was used to test the reliability of the measuring tools. The rule of thumb suggests 0.7 to be the acceptable value (Hair et al., 1995). In addition, composite reliability (CR) and average variance extracted (AVE) were also established. Consequently, the results were above the recommended 0.7 and 0.5 for CR and AVE respectively (Hair et al., 1995). These represented a robust reliability and internal consistency of the constructs (Hancock & Mueller, 2001). Furthermore, based on the extraction from the principal component analysis, all the variables comply with the assumption of no perfect multicollinearity. VIF and Tolerance coefficients were also within the acceptable range, to invalidate the any presence of multi-collinearity. A Durbin-Watson value of 2.017 also invalidated the presence of independent errors (Asteriou and Hall, 2007).

Factor Analysis

Exploratory Factor Analysis (EFA): As an essential theory-generating procedure (Khong & Richardson, 2003), EFA was used to summaries the data and to reduce it to lesser set of new factors with slightest loss of information. Consequently, the result from this analysis extracted five factors, after suppressing factor loadings (absolute values) that are less than 0.4.

Table1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.806**
Bartlett's Test of Sphericity	Approx. Chi-Square	12661.037
	DF	1431
	Sig.	.000

Table 2: Rotated Component Matrix

	Factor				
	1	**2**	**3**	**4**	**5**
F2	.845				
F1	.821				
F5	.781				
F6	.779				
F3	.759				
F4	.724				
C1		.804			
C2		.803			
C5		.791			
C4		.781			
C6		.768			
C3		.733			
E6			.847		
E5			.835		
E2			.815		
E1			.800		
E3			.738		
E4			.541		
B5				.811	
B3				.785	
B2				.777	

B6	.746	
B1	.730	
B4	.710	
G1		.847
G6		.802
G4		.777
G3		.736
G5		.680
G2		.631

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

One unique feature of EFA was the fragmented nature of the cross-loadings in which some variables manifested more than one factors. However, when factors with loadings more than 0.5 were highlighted to represent the variables, EFA yielded five factors (Table 2), with only three similar to the five dimensions measuring CSFs of BPR in Al-Mashari and Zairi (1999) and Bontis (1998). Based on the EFA output, the extracted factors were Factor 2 "organizational structure", Factor 3 "IT Infrastructure", and Factor 4 "Management competence and support". Factor 1 represented "operational performance" and Factor 5 "profitability". A recalculated coefficient alpha (α) value of 0.912 was also achieved. This indicated an acceptable reliability of the measuring tool. In addition, Kaiser, Meyer and Ohlin (KMO) measure of sampling adequacy (that is 0.806 > 0.5), as depicted in table 1, also indicated that the sample that was used to generate data was adequate and factorable (Khong & Richardson, 2003). Table 3 shows the descriptive statistics and correlation matrix of all the constructs. It is important to note that none of the explanatory variables were strongly correlated. The mean and standard deviation were normally distributed (Panneerselvan, 2010). The alpha coefficient estimates are robust in its estimations. Consequently, all the variables were used in our analysis.

Table 3: Results of Factors Correlation and Scale Reliability with Descriptive Analysis

Variables	Mean	Std. Deviation	1	2	3	4	5
1 Organisational Structure	15.5000	4.94572	**(.891)**		.		
2 Operational Performance	17.1517	5.18143	.232**	**(.892)**			
3 Mgt Support & Competence	18.0000	6.41888	.315**	.342**	**(.881)**	.	
4 Profitability	17.0274	5.52318	.204**	.175**	.294**	**(.856)**	
5 IT Infrastructure	11.6343	4.65553	.296**	.234**	.204**	.209**	**(.888)**

Note: **Correlation is significant at the 0.01 (2-tailed), *correlation is significant at the 0.05 (2-tailed). Alpha coefficient estimates are presented in the diagonal.

Although the new conceptual framework appears to be a good tool to use (Khong & Richardson, 2003), it is however preliminary and was subjected to the next analysis. This is on the premise that EFA only defines the relationships between factors and its variables however, to confirm the relationships CFA was used in this study.

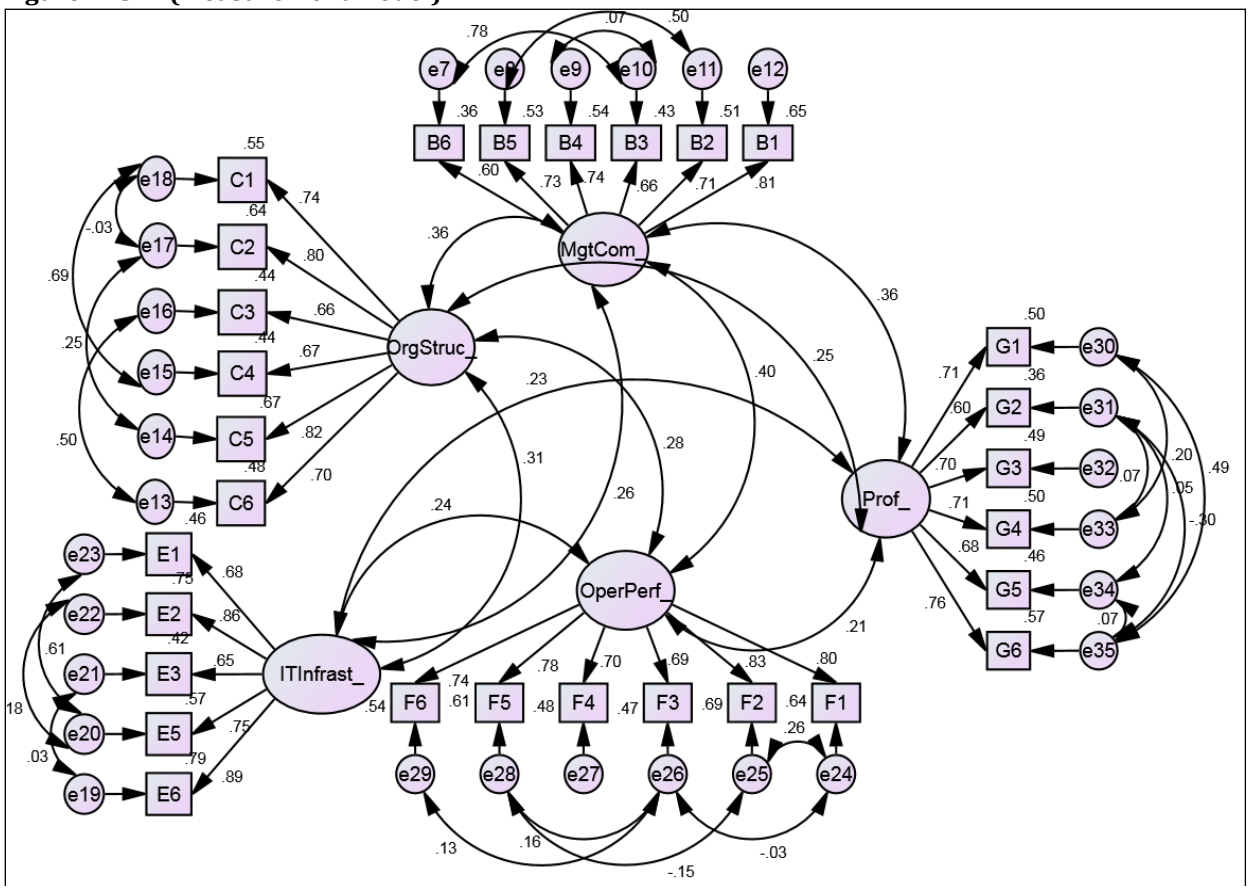
Confirmatory Factor Analysis (CFA): According to Khong and Richardson (2003), CFA is a theory-testing procedure. Consequently, using the output of our EFA, our study leveraged on IBM SPSS Amos' interface to run a CFA. It was also an attempt to examine the reliability and validity of the measurement model (Hair et al. 1995). Although EFA allows the variables to define the nature of the factors, CFA specifies and confirms the relationships of the variables prior to the analysis (Panneerselvan, 2010). With total control of variables at this stage, each of the five factors (contrived during EFA) was allotted to represent the factors. Consequently, variables above 0.5 loadings were assigned to represent the various factors. However, variables less than 0.5 were subsequently constrained to zero (Hair et al., 1995). Variables retained are shown in Figure 2

(Measurement model-i.e. confirmatory factor analysis). Five constructs were identified: three explanatory variables (organizational structure, IT Infrastructures, and management competence and support), one mediating variable (operational performance), and one dependent variable (profitability). Based on the output of the CFA (Figure 2), all factor loadings were found to be positive, large, oscillating from 0.60 to 0.89 and highly significant ($p < 0.001$), this however, confirmed the validity of the measurement model, i.e. CFA (Panneerselvan, 2010).

Table 4: Summary of Test Result-Reliability Analysis

Constructs	Number of Questionnaire items	Cronbach's Alpha (mean)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Organizational structure	6	0.923	0.895	0.786
Management competence and support	6	0.890	0.913	0.873
IT Infrastructures	5	0.894	0.844	0.735
Operational performance	6	0.922	0.733	0.778
Profitability	6	0.932	0.724	0.734

Figure: 2 CFA (Measurement Model)



The reliability of the various constructs is shown in table 4. The Cronbach's coefficient alphas (α) of all the constructs are well above the recommended thresholds, depicting the consistency of the dataset (Hair et al., 1995).

Model Fit-CFA: To demonstrate the overall fit of our measurement model and the construct validity of variables, various model fit indices were utilised (Ho, 2000; Anderson & Gerbing, 1988). Consequently, the indices used to interpret the results were: chi-square (CMIN), normed-chisquare value (CMIN/DF) or X^2/df ratio, the root mean square Error of Approximation (RMSEA), the comparative fit index (CFI), the goodness of fit index (GFI), Tucker-Lewis Index (TLI)- also known as Non-Normed Fit Index (NNFI), Normed Fit Index (NFI), Incremental Fit Index (IFI) (Schumacker & Lomax 1996; Hair et al. 1995; Byrne 2001; Baumgartner & Homburg 1996). Based on literature, once at least four indices are good, one can conclude a good model fit (Fields & Atiku, 2015; Khong & Richardson, 2003). The results of the fit indices are shown in Table 5.

Table 5: Goodness of Fit Indices for the CSFS of BPR Model

Goodness of fit indices	Fit Criteria	CSFs of BPR Model
X^2		588.957
DF		354
p		< 0.00
X^2/DF	<3	1.664
RMSEA	=0.08	0.041
CFI	=0.9	0.966
GFI	=0.8	0.911
AGFI	=0.8	0.891
TLI	=0.9	0.95
NFI	=0.9	0.95
IFI	=0.9	0.96

Adapted from Hair et al. 1995, Schumacker & Lomax 1996, Baumgartner & Homburg 1996, Byrne 2001

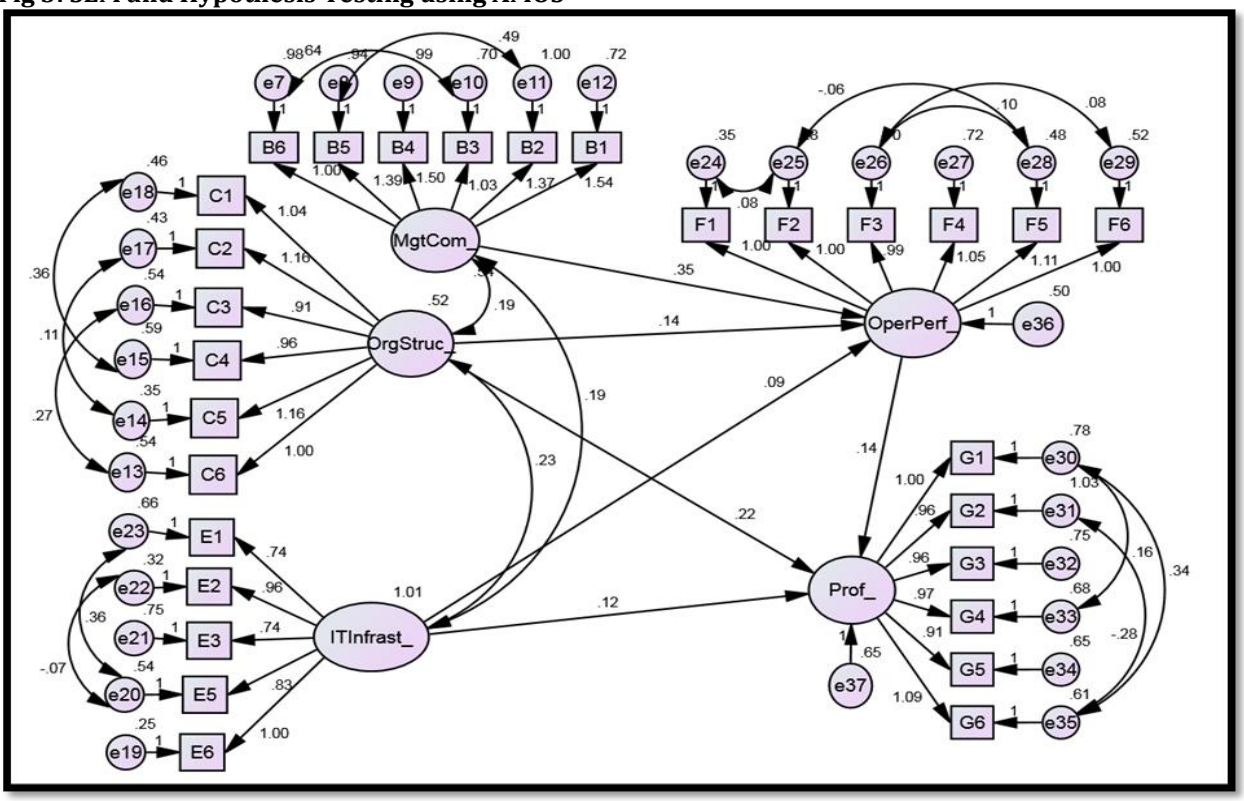
The Normed X^2 or X^2/DF ratio (CMIN), measures the degree of inconsistency between the sample and covariance matrices; however, since 1.664 falls within 1 to 2, it indicates acceptable model fit between the CSFs of BPR and the sample data (Schumacker & Lomax 1996). In addition, the root mean square Error of Approximation (RMSEA) value of 0.041< 0.05 indicated a good fit with the population covariance (Hair et al., 1995). Furthermore, the comparative fit index (CFI) value of 0.966 indicated a perfect model fit, in terms of the adequacy of the sample size (Baumgartner & Homburg 1996). Both the GFI and AGFI, at 0.911 and 0.891, were above the recommended 0.8. This implied a good fit of the measurement model (Fields & Atiku, 2015). The Normed Fit Index (NFI) at 0.95 also represented a good incremental fit index (Byrne 2001). Other model fit indices, like, Tucker-Lewis Index (TLI)- also known as Non-Normed Fit Index (NNFI), and the Incremental Fit Index (IFI) were well above the recommended minimum of 0.9. These are an indication of good fit (Hair et al. 1995). The results indicated uni-dimensionality and good fit with our data (Hair et al., 1995).

Structural Equation Modelling (SEM): The second objective of this paper was the testing of the contrived model, by evaluating the relationships between the CSFs of BPR and profitability, giving the mediating influence of operational performance. This was achieved via SEM. Using the output of our SEM, via IBM SPSS Amos' user-friendly interface; we drew on our contrived models to examine the relationships among CSFs of BPR, operational performance and profitability. According to Fields and Atiku (2015), AMOS is designed to test SEM and determine the linear relationships among latent and manifest variables. It is also designed to confirming correlations and inferred causal relationships among factors (Khong & Richardson, 2003). However, after performing CFA, SEM (with AMOS) was helpful in analyzing the theoretical framework developed during CFA, to establish the extent to which operational performance mediates the relationship between CSFs of BPR and profitability (Fields & Atiku, 2015; Khong & Richardson, 2003). The structural model as illustrated in Figure 3 shows that organizational structure has an impact on profitability and operational performance.

IT Infrastructure also has an impact on both operational performance and profitability. However, SEM failed to establish the relationship between management competence and support and profitability. That notwithstanding, operational performance perfectly mediated the relationship between management

competence and support and profitability. In all, operational performance perfectly mediated the relationship between CSFs of BPR and profitability. The last stage of this study was the testing of our contrived model. This was done by assessing the standardized regression weights for latent and manifest variables (Khong & Richardson, 2003). The standardized regression weights for the CSFs of BPR and the performance measures (operational performance and profitability) are shown in Table 6. The result shows all standardized regression path estimates or beta loading from the performance measures (operational performance and profitability) to the various CSFs of BPR. The entire beta loading were significant at 0.05% level of significance (Khong & Richardson, 2003). The mediating influence of operational performance was highly noticeable in the relationship between management competence and support and profitability.

Fig 3: SEM and Hypothesis Testing using AMOS



Similar with the CFA, the fit indices for the SEM were acceptable. Consequently, the identified model fits our empirical data. Specifically, the comparative fit index (CFI) (at 0.96) and the Tucker-Lewis index (TLI) (at 0.97) were greater than the recommended 0.95, and the root mean square error of approximation (RMSEA) was also smaller (at 0.48) than the recommended 0.08 (Byrne 2001). One of the major advantages of the SEM in Figure 3 is the opportunity of graphically viewing the inferred causal relationships between the CSFs of BPR, operational performance, and profitability (Byrne 2001; Hsu, 2010). Consequent, upon the establishment of a good SEM fit indices; this implies that the underlined dimensions of the various factors are valid (Byrne 2001). Consequently, our model shows the mediating influence of operational performance on the interplay between profitability (organizational performance) and CSFs of BPR.

Table 6: Standardized Regression Weights

			Estimate	S.E.	C.R.	P	Label
OperPerf_	<---	MgtCom_	.346	.070	4.961	***	par_42
OperPerf_	<---	ITInfrast_	.090	.044	2.047	.041	par_45
OperPerf_	<---	OrgStruc_	.140	.068	2.072	.038	par_47
Prof_	<---	OrgStruc_	.219	.076	2.893	.004	par_43

			Estimate	S.E.	C.R.	P	Label
Prof_	<---	ITInfrast_	.124	.051	2.439	.015	par_44
Prof_	<---	OperPerf_	.145	.065	2.229	.026	par_46
B6	<---	MgtCom_	1.000				
B5	<---	MgtCom_	1.390	.125	11.103	***	par_1
B4	<---	MgtCom_	1.504	.142	10.577	***	par_2
B3	<---	MgtCom_	1.028	.048	21.399	***	par_3
B2	<---	MgtCom_	1.365	.126	10.803	***	par_4
B1	<---	MgtCom_	1.543	.140	11.020	***	par_5
C6	<---	OrgStruc_	1.000				
C5	<---	OrgStruc_	1.161	.090	12.851	***	par_6
C4	<---	OrgStruc_	.960	.083	11.566	***	par_7
C3	<---	OrgStruc_	.905	.055	16.569	***	par_8
C2	<---	OrgStruc_	1.159	.093	12.412	***	par_9
C1	<---	OrgStruc_	1.039	.082	12.744	***	par_10
E6	<---	ITInfrast_	1.000				
E5	<---	ITInfrast_	.831	.050	16.645	***	par_11
E3	<---	ITInfrast_	.741	.051	14.648	***	par_12
E2	<---	ITInfrast_	.958	.045	21.489	***	par_13
E1	<---	ITInfrast_	.744	.050	14.988	***	par_14
F1	<---	OperPerf_	1.000				
F2	<---	OperPerf_	1.001	.050	20.021	***	par_15
F3	<---	OperPerf_	.991	.076	13.081	***	par_16
F4	<---	OperPerf_	1.050	.075	14.051	***	par_17
F5	<---	OperPerf_	1.111	.073	15.174	***	par_18
F6	<---	OperPerf_	.996	.067	14.828	***	par_19
G1	<---	Prof_	1.000				
G2	<---	Prof_	.965	.091	10.588	***	par_20
G3	<---	Prof_	.965	.081	11.956	***	par_21
G4	<---	Prof_	.970	.072	13.399	***	par_22
G5	<---	Prof_	.909	.076	11.900	***	par_23
G6	<---	Prof_	1.087	.062	17.432	***	par_24

For instance, the direct paths from CSFs of BPR to operational performance (0.346, 0.090, and 0.140) in the structural model were statistically significant at 0.05% level (p values of 0.000, 0.041, and 0.038), a validation of **Ho_1:** hypothesis. Furthermore, the direct paths from CSFs of BPR to profitability (0.219, 0.124, and 0.145 respectively) in the structural model were also statistically significant at 0.05% level (p values of 0.004, 0.015, and 0.026 respectively), a validation of **Ho_2:** hypothesis. Therefore, the SEM posits the positive effect of the CSFs of BPR implementations on the two performance measures (operational performance and profitability).

Discussion of Findings: This study revealed that the underlying dimensions of the CSFs of BPR implementations in the Nigerian oil and gas industry are organizational structure, management competence and support, and IT infrastructures. The outcome of the CFA posit that all three dimensions of the CSFs of BPR contributed significantly to operational performance and profitability in the Nigerian oil and gas industry. Specifically, the structural model also shows the positive effect of organizational structure and IT Infrastructures on both profitability and operational performance. However, SEM failed to establish the relationship between management competence and support and profitability. That notwithstanding,

operational performance also perfectly mediated the relationship between management competence and support and profitability. Based on our findings, our model could be generalized to other manufacturing industries. By confirming our models empirically using SPSS Statistics and Amos, oil and gas companies can favourably determine the relationships between performance measures (e.g. profitability and operational performance) and the CSFs of BPR (Hsu, 2010; Fields & Atiku, 2015; Khong & Richardson, 2003). This is on the premise that both the CFA and SEM in our study showed a good model fit and can therefore be seen as a reliable and valid model to use to measure successful BPR implementations in the oil and gas industry. The significant positive relationships obtained in this study are similar to previous findings (Ascari et al., 1995; Smith, 2003; Ahmed et al., 2007).

This study also supports Salaheldin (2009) proposition that enriched structures, processes, and technology is capable of reducing a company's risk of failure in any BPR implementation programme. The mediating influence of operational performance also collaborate the significant influence of improved BPR on a company's performance indices (Abdolvand et al., 2008). Consequently, operational performance indicators would lead to successes in secondary measures of performance (Ahmed et al., 2007; Salaheldin, 2009). However, it is also important to note that not all of the variables in CSFs were effectively affecting profitability and operational performance in the Nigerian oil and gas industry. Specifically, based on the results of the EFA, variables manifesting change of management system and culture, BPR-project management, and some business performance measures were omitted from our analyses due to their inability to meet the setting of 0.5 thresholds (Hair et al., 1995).

Consequently, based on our findings, for BPR implementation to be successful in the Nigerian oil and gas companies, there should be adequate commitment and support from the top Management. In addition, there should be constant BPR risk and performance evaluation to access the extent of change management techniques. There is also need to create new organizational structures to determine the composition of BPR teams. Other top prerequisites for a successful BPR implementation are as follows: management of re-engineering leaders, champions, and project managers; effective leadership; adequate authority and responsibilities, knowledge transfers, and proper interaction with all stakeholders; experienced BPR champions and teams; adequate composition of BPR teams; suitable investment in information technology; and lastly, continuous measurement and control of information technology infrastructure capabilities.

5. Conclusion and Implications of Findings

Conclusion: In this study, a conceptual framework and model was created to identify the CSFs of BPR and its relationships with both profitability and operational performance in the Nigerian oil and gas industry. However, the novelty of this study lies in exploring the mediating influence of the operational performance on profitability. Specifically, findings based on the EFA, CFA and SEM revealed that CSFs of BPR positively influenced both operational performance and profitability in the Nigerian oil and gas industry. In addition, the study revealed that the underlying dimensions of successful BPR implementations are organizational structure, management competence and support, and IT infrastructures. Moreover, results of the CFA suggest that all three dimensions of CSFs of BPR contribute significantly to operational performance and profitability. The structural model also shows the positive effect of organizational structure and IT Infrastructures on both profitability and operational performance. The only surprising result was the inability of SEM to establish the relationship between management competence and support and profitability. That notwithstanding, operational performance still mediated the relationship between management competence and support and profitability. Based on our findings, our model could be generalized to other manufacturing industries (Hsu, 2010; Fields & Atiku, 2015; Khong & Richardson, 2003). Therefore, the contrived model in this study is proposed as a model to measure successful BPR implementation in the Nigerian oil and gas industry. This is on the premise that both CFA and SEM showed a good overall model fit.

Implications of Findings: Our study seems to be one of the few scrutinizing the success of BPR implementations, and its related CSFs, from the standpoint of how organizations fare after implementing BPR efforts. This gap was originally highlighted by Al-Mashari and Zairi (1999: 105). According to Al-Mashari (2003), despite increasing investments in BPR efforts by organizations around the world, proper efforts to determine their accomplishment and the fundamental causes have been very limited. Al-Mashari and Zairi

(1999) also advocated for the scrutiny of critical factors involved in BPR implementations. Lastly, in terms of relationship, this study corroborates that there are particular CSFs of BPR implementation efforts that are related to business improvements (Ahmed et al., 2007). Another important contribution of our study was the measurement of business performance, which was not restricted to financial measures, but incorporates varied business measures, like profitability and operational performance (Khong and Richardson, 2003). Development of our CFA and SEM also filled a gap identified by Ahmed et al. (2007), that much effort is required in contriving a model for BPR implementations. Furthermore, our study lends a theoretical model for emerging a combined model toward examining the relationship between CSFs of BPR implementations, BPR effectiveness (operational performance) and BPR success (profitability). Moreover, the corroborated findings provide valuable implications for practice.

This study is expected to provide specific direction to companies contemplating a BPR programme, hence, the study is expected to be beneficial to the oil and gas companies and policy makers by enabling better strategic and tactical judgments with regards to BPR implementations. According to Brown (2006; p. 20), due to the fundamental difference between EFA (EFA "is an exploratory analysis because no a priori restrictions are placed on the pattern of relationships between the observed measures and the latent variables") and CFA (in CFA, "the researcher must specify in advance several key aspects of the factor model such as the number of factors and patterns of indicator-factor loadings"), this study adopted CFA, because results obtained from EFA alone can be unreliable (Hsu, 2010; Khong & Richardson, 2003). Another methodological implication of our study was the improvements over Awolusi (2013a) study. This is on the premise that unlike regression analysis which can only evaluate one equation at a time, the use of IBM SPSS Amos and SEM in our study allowed the examination of more than one regression equation or relationship at one time (Khong & Richardson, 2003). Consequently, using SEM was more realistic, since it also takes potential measurement errors into account (Hsu, 2010; Fields & Atiku, 2015).

Limitations and Directions for Future Research: One important limitation of this study is using perceptual data provided by senior and management staff which may not provide clear measures of profitability. Although the measurement models posited good fits, supplementary procedures might be used in future studies to minimize this potential limitation. These may include the use of objective measures like turnover, gross or net profit to measure the dependent and mediating variables. The use of manifold raters from different classes, such as consultants/ experts and customers may also be encouraged in future studies. Given diverse measures of the explanatory variables (CSFs of BPR) in previous studies, it is important that our proposed CSFs and the output may represent various levels of generalization. Nevertheless, these limitations posit restraint in generalizing the results of this study. That notwithstanding, the affirmation of our models, via various statistical packages and techniques, confirmed the efficacy and reliability of our model. Future studies may also consider the inclusion of BPR implementations in more countries. It is also important to state that the omitted variable (CSFs), due to the setting of 0.5 thresholds, does not make a factor less important to the current study, and as such this factor should be interpreted with this possible constraint in mind (Fields & Atiku, 2015; Khong & Richardson, 2003).

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Capital Structure on Profitability of Manufacturing Firms listed on the Nigerian Stock Exchange

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Abstract: This study examined capital structure on profitability of manufacturing firms listed on the Nigerian stock exchange. Specifically the study analyzed the impact of disaggregated variables of debt finance (Short term debt and long term debt) and equity finance (share capital and share premium) on profit after tax. Secondary data were gathered from annual reports of sampled firms over a period of ten years (2008-2017) and were analyzed using panel data estimators such as pooled OLS estimator, fixed effect estimator, random effect estimator, Hausman test, and Pesaran test of cross sectional dependence. The findings revealed that short term debt has insignificant positive effect on profit after tax of manufacturing firms showing in specific term a coefficient estimate of 0.114985 (p=0.5890> 0.05) long term debt exerts significant positive impact on profit after tax, with specific coefficient estimate of 0.578290 (p=0.0001< 0.05) share capital exerts significant positive effect on profit after tax, with coefficient estimate of 0.784525 (p=0.0000< 0.05) share premium exerts insignificant negative effect on profit after tax, with coefficient estimate of -0.000395 (p= 0.9924> 0.05). The study concluded that short term debt has declining effect on the profitability of manufacturing firms in the country, while the long term variable of debt finance of firms spurs the rate of profitability. In clear term disaggregated debt finance subsets exerts significant effect on the profitability of firms sampled in the study. On the other hand equity finance disaggregated into share capital and share premiums reflect that share capital has significant positive effect on profit after tax, while share premium has insignificant negative effect on profit after tax.

Keywords: *Capital structure, Debt finance, Equity finance, profitability.*

1. Introduction

It is acknowledged that an organization with a strong capital base may have better returns and value. Although, some commonly believe that a better mix of an organization's capital is the life of any firm. Manufacturing firms no doubt play a significant role in the Nigerian economy because they engage in production of goods for consumption and other needs in the Nigerian economy. Capital structure in manufacturing firms contains long term and short-term debts, retained earnings and equity (Abor (2005). The importance of capital structure to corporate financial stability, growth and adequate returns of manufacturing firms is very important. Capital structure then consists of external and internal sources of financing which includes, long term and short term debts, retained earnings and equity (Akinlo, 2011). Capital structure is the combination or mix of company's equity and debt, which ensures financial stability, profit generation, growth, and expansion. Saad (2010) view capital structure of a company as the precise mix of debt and equity used in financing firm's operations. Profitability is important in determining capital structure. The profitability of a firm depends on a firm's investment opportunities. They are able to invest using the total debt, equity or a combination of debt and equity.

This not only depend on investment expected future cash flows, but also on the cost of these funds. Profitability is one of the indispensable ways for pulling the shareholders to contribute in raising the funds for a firm. Companies with a high level of profitability may have the opportunity to expand or develop their businesses to obtain higher returns (Putrawan, Sinarwati, & purnamawati 2015). In the past, several empirical studies had been conducted in Nigeria (Aliu, 2012, Adesina, Nwidobie and Adesina, 2015, Chechet and Olayiwola, 2014, Lawal, 2014, Babalola, 2014, Akinyomi, 2013, Aremu, Ekpo, Mustapha, and Adedoyin, 2013, Ogebe, Ogbebe and Alewi, 2013, Shubita & Alsawalhah, 2012, Osuji and Odita, 2012, Chandrasekharan, 2012, Muritala, 2011, Uremado and Efobi, 2012), in the quest to ascertain what establish the effect of capital structure on organizational profit. Observably only few of these studies concisely focused on manufacturing firms (Babalola, 2013, Akinyomi, 2013, Uremado and Efobi, 2012). However, overview of approach adopted by this study relayed the extent which aggregation had been abused in the dissertation of capital structure. In clear tone, it was observed that most of the studies conducted. In the country on capital structure proxies, debt and equity on aggregation level with attempt.

2. Literature Review

Capital Structure: Capital structure is the mix of debt and equity which makes up firms total capital which is used for its business. Equity is in use means ordinary shares added to retained earnings while debt is taken to mean all fixed interest bearing stock. Gajurel (2005) described capital structure as the "different sources of funds that make up a firm's capital. According to Abor (2008), capital structure is the particular blend of equity and debt and equity a firm uses to finance its operations. Akinsurile (2008) described capital structure as the variables of debts and equity, used by a company to finance its operations, and which usually consist of ordinary share capital, preference share capital and debt capital. The debt and equity combination that maximizes the value of the firm is the firm's optimal capital structure (Ross et al., 2008), and choosing a firm's capital structure remains a crucial strategic choice that corporate managers have to make (Gatsi and Akoto, 2010). To disintegrate element of long term debt from the total debt as well as dissect equity to specifically concentrate on issue share capital and/or share premium. Therefore, this study assessed the effect of capital structure on profitability of manufacturing firms in Nigeria adapting disaggregation approach. long term debt, short term debt, share premium and share capital will be used to proxy capital structure on profitability of quoted manufacturing firms on Nigeria Stock Exchange (NSE). Capital structure decision is important since the profitability of an organization is directly affected by such decision (Kajananthan & Nimalthasan, 2012).

Equity Finance: Equity is described to be the residual left after subtracting the value of the liabilities of an accounting entity from the value of its assets, where a necessity to return contributed capital and an obligation to distribute the remains itself to particular persons are not counted as liabilities. The company would have more cash on hand for growing business and not obligated to pay back the venture if the company fails but the most difficult part of equity financing is that the company owner might have a hard time to look for the right investor that would agree on every decision the owner might make (Aftab, Ehsan, Naseer, & Awan, 2012). Also, equity component is the amount of funds left to the shareholders after full settlement of long term debts and short-term debts in the event of liquidation. Arnold (2008) asserts that ordinary shareholders are entitled to receive returns after the claims of preference shareholders and debentures are settled. Shareholders have full rights of information access, direct, and control the company via their votes. Tailab (2014) opines that shareholders (equity holders) are owners of a company and mostly bear the associated risk with the business as they receive residual claims to the resources of the firm.

Debt Finance: Debt financing is the capital that firms raise in the course borrowing funds that is paid at a future period. The good thing about debt financing is that the company relationship ends once the money is paid back and has no more obligations and the interest on the loan is tax deductible. Debt holders are not owners of the business, but creditors that receive a fixed percentage as return on their loan to the company. Interest on debt capital is paid in completely before payment of any dividend to equity holders because the cost of debt (Interest) forms part of the operational cost of a business. Debt financing means borrowing money from third parties and not giving up ownership. That is the financing of business operations through external sources which attracts additional cost known as 'coupon rate' (cost of borrowing). Default to meet this coupon rate may lead to negative consequences to the borrowing firm. The holders of debt capital have an initial claim on firm's assets who bear less risk than shareholders (Myers, 2005)

Empirical Review: Abeywardhana (2015) examined capital structure and profitability an empirical analysis of SMEs in the UK, this study examined the relationship between capital structure and the profitability of nonfinancial SMEs in the Uk for the period of 1998-2008. The researcher used the two stage least squares, (2sls) which showed a significant relationship with capital structure and profitability which is negatively related. The size of the firm appears to have a more important factor that determines the profitability in SMEs in the Uk. There is consistent evidence for positive size- profitability relationship. The results of this study have shown that the capital structure of the firm has a significant influence on the profitability of SMEs in the Uk. Particularly long-term debt to total assets ratio is negatively related with the profitability and this is an indication that SMEs are unenthusiastic to use more equity because of the fear. Samuel (2016) analyzed effect of capital structure on financial performance of commercial banks in Kenya, the grounds of this study was to provide insights into the relationship between capital structure and financial performance of Kenya's banking industry. The board population was the banking industry. Secondary data was used. Data was drawn from a sample of the registered banks by the central bank of Kenya in Kenya.

The study also used annual reports that were available from their websites and in the central bank of Kenya website. Data was obtained for a ten year period from 2005 to 2014. The finding showed that increase in debt would affect financial performance positively leading to improvement in profitability. If there is an increase in debt levels, the EBIT is expected to increase by 17.6% per unit measure. Kakanda, Bello and Abba (2016) examined Effect of Capital Structure on Performance of Listed Consumer Goods Companies in Nigeria. The study made use of ex-post facto research design to examine the relationship between independent and dependent variables while controlling for other variables. Descriptive statistics, correlation, and hierarchical multiple regression analyzes were carried out to test the hypotheses developed in the study. Secondary data were sourced from the annual financial reports of the sampled firms from the year 2008 – 2013, which was obtained from African Financial website and official website of Nigerian Stock Exchange. The study found that there is a positive and significant correlation between firm's capital structure and corporate financial performance.

The study specifically found that short-term debt (STD) has no significance positive effect on return on equity (ROE) while Long-term debt (LTD) has positive relation and significant effect on ROE. Foyeke, Olusola and Aderemi (2016), researched on financial structure and the profitability of manufacturing companies in Nigeria. This study employed the use of secondary data. The spearman's rank correlation and regression techniques were used for analysis, using the stats package for a sample of 25 manufacturing companies quoted on the Nigerian stock exchange for the period 2008-2012. The study showed that equity has a significant positive relationship with the profitability of manufacturing companies in Nigeria. The study recommended that managers should improve more facilities on equity capital and policymakers should encourage manufacturing companies to reduce the cost of debt. Siddik, Kabiraj and Joghee (2017) investigated the impacts of capital structure on performance of banks in a developing economy: evidence from Bangladesh. Using panel data of 22 banks for the period of 2005–2014, the study empirically established that capital structure inversely affects bank performance. The findings of this empirical study are of greater significance for the developing countries like Nigeria because it calls for the concentration of the bank management and the policy makers to pursue the policies that reduce reliance on debt to achieve the optimal level of capital structure. The results of this study are also analyzed in the light of earlier studies.

3. Methodology

Model Specification: Model used in this study specified profitability measured in terms of profit after tax (PAT) as a function disaggregated capital structure variables include short term debt (STD), long term debt (LTD), share capital (SHC), and share premium (SHP), controlling for firms size (FZ) in terms of natural log of total asset. Function presentation of the model is of given as:
PAT=f (STD, LTD, SHC, SHP, FZ)
Linear representation of the model is presented in the basic forms of panel estimations conducted in the study as:

$$PAT_{it} = \delta_0 + \delta_1 STD_{it} + \delta_2 LTD_{it} + \delta_3 SHC_{it} + \delta_4 SHP_{it} + \delta_5 FZ_{it} + \mu_{it} ------(3.1)$$

Where:
PAT=Profit after tax
STD=Short Term Debt
LTD=Long Term Debt
SHC= Share Capital
SHP=Share Premium
FZ=firm sized
μ_{it} Represent the error term, while $\epsilon_i$is the random effect term
ϵ_i= cross sectional effects subsumed into the error term of the random effect model
$\delta_0, \delta_1, \delta_2, \delta_3, \delta_4, \delta_5$are all parameter estimates of the corresponding models. $\sum_{i=2}^{5} \alpha_i D_i$, $\sum_{t=2}^{5} \alpha_t D_t$represent sum of differential intercept term across manufacturing firms sampled in the study, with exception of the reference intercept term which is represented by the intercept term.

Source(s) of Data and Method of Analysis: The study focused on five manufacturing firms in Nigeria which include includes Dangote Sugar Refinery, Guinness Nigeria Plc, Nigeria Breweries, PZ Cusson and Unilever Nigeria Plc. Secondary data used in the study were sourced from the Nigerian Stock Exchange fact books,

annual reports of firms for a period of 10 years, spanning from 2008 to 2017. Data collated were analyzed using correlation analysis, pooled OLS estimator, fixed effect estimator, and random effect estimator, alongside post-estimation tests such as restricted f-test, and Hausman test.

4. Data Analysis and Interpretation

Table 1: Correlation Matrix

	PAT	SHC	SHP	STD	LTD	FZ
PAT	1.000000					
SHC	0.398046	1.000000				
SHP	0.306715	0.230233	1.000000			
STD	0.592102	0.204151	0.375181	1.000000		
LTD	0.508574	-0.198209	0.302796	0.761893	1.000000	
FZ	0.413437	0.259793	0.593415	0.858786	0.650268	1.000000

Source: Data analysis (2018)

Correlation result presented in table 1 revealed that there is positive correlation between profit after tax, and variables including share capital, short term debt long term debt and firms size. Specifically correlation coefficient reported in table 1 stood at 0.398046, 0.306715, 0.592102, 0.508574 and 0.413437 for PAT and SHC, PAT and SHP, PAT and STD, PAT and LTD, PAT and FZ respectively. Also, result presented in table 1 reflects there is positive correlation between all pairs of explanatory variables except between SHC and LTD. In particular, reported correlation coefficient stood at 0.230233, 0.204151, -0.198209, 0.259793, 0.375181, 0.302796, 0.593415, 0.761893, 0.858786 and 0.650268 for SHC and SHP, SHC and STD, SHC and LTD, SHC and FZ, SHP and STD, SHP and LTD, SHP and FZ, STD and LTD, STD and FZ, LTD and FZ respectively.

Table 2: Pooled OLS Estimation

Dependent Variable: PAT
Method: Panel Least Squares
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.872010	1.406696	-2.752556	0.0086
SHC	0.838838	0.186726	4.492349	0.0001
SHP	0.126179	0.066224	1.905346	0.0633
STD	1.021167	0.386121	2.644683	0.0113
LTD	0.590772	0.182389	3.239077	0.0023
FZ	-0.917994	0.265357	-3.459467	0.0012
R-squared	0.621928			
Adjusted R-squared	0.578965			
F-statistic	14.47596			
Prob (F-statistic)	0.000000			
Durbin-Watson stat	1.040081			

Source: Data analysis (2018)

Table 2 showed the result of the pooled panel regression output. It was discovered from the result that a linear relationship exists between the capital structure and profitability of manufacturing firms in Nigeria. Specifically, the result showed that share capital exerts significant positive effect on profit after tax with coefficient estimate of 0.838838 ($p=0.0001< 0.05$), share premium exerts insignificant positive effect on profit after tax, with coefficient estimate of 0.126179 ($p= 0.0633> 0.05$), short term debt exerts significant positive effect on profit after tax, with coefficient estimate of 1.021167 ($p=0.0113< 0.05$), long term debt exerts significant positive effect on profit after tax, with coefficient estimate of 0.590772 ($p=0.0023<0.05$), while firms size exerts significant negative effect on profit after tax with coefficient estimate of -0.917994 ($p=0.0012< 0.05$).

R-squared (R^2) also known as the coefficient of multiple determination measures the success of the regressions predicts the value of the dependent variable within the sample and tests the goodness of fit. It appears good with the value of 0.621928 (62.2%) which implies that the variables such as share capital (SHC), share premium (SHP), short term debt (STD), long term debt (LTD) and firms size (FZ) have 62.2% variation in profit after tax (PAT). The results of other statistical tools reveal that the F-test and its probability value are 14.47596 and 0.000000 implying that the independent variables can jointly influence the dependent variable profit after tax (PAT) that is the entire regression test is statistically significant while the adjusted R-square and the Durbin-Watson statistic are considered appropriate in this study at five percent level of significance.

Table 3: Panel Least Square (Fixed Effect Model)

Dependent Variable: PAT
Method: Panel EGLS (Cross-section weights)
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	31.49928	11.78991	2.671714	0.0109
SHC	-3.942246	1.873941	-2.103719	0.0417
SHP	-0.114808	0.092695	-1.238555	0.2227
STD	0.459411	0.234780	1.956773	0.0574
LTD	-0.380626	0.262861	-1.448014	0.1554
FZ	0.046288	0.226382	0.204468	0.8390
	Effects Specification			
Cross-section fixed (dummy variables)				
DSR	0.097630			
GNP	-0.058492			
NB	0.083249			
PZ CUSSON	-0.088985			
UNP	-0.123403			

R-squared= 0.863624, Adjusted R-square = 0.832939, F-statistic = 28.14511, Prob F-statistic = 0.000, Durbin-Watson stat = 1.483602

Source: Data analysis (2018)

Table 3 presented shows the result of fixed effect estimation and it revealed that the beta coefficient of constant is positive with the value of 31.49928 and its p-value is 0.0109 indicating that when all the independent variables are held constant, there will be a positive variation up to the tune of 31.49928 units in profit after tax (PAT) and it is significant. However, share capital exerts negative significant impact on profit after tax, with coefficient estimate of -3.942246 (p=0.0417< 0.05), share premium exerts negative insignificant impact on profit after tax, with coefficient estimate of -0.114808 (p= 0.2227> 0.05), short term debt exerts insignificant positive impact on profit after tax. With coefficient estimate of 0.459411 (p=0.0574>0.05) and long term debt exerts insignificant negative impact on profit after tax, with coefficient estimate of -0.380626 (p=0.1554> 0.05), while impact of firms size on profit after tax is positive but not significant.

Thorough examinations of the result on the individual selected firms showed that capital structure positively influence the profitability of Dangote Sugar Refinery, Nigeria Breweries by 9.7%, and 8.3%respectively. However, capital structure under consideration reduced an average profit in Guinness Nigeria Plc, PZ Cusson and Unilever Nigeria Plc by 5.84%, 8.86% and 12.3%respectively in Nigeria. The R-squared (R2) value is 0.863624 that is 86.3%, implying that the independent variables such as share capital (SHC), share premium (SHP), short term debt (STD), long term debt (LTD) and firms size (FZ) have above 86% variation in the dependent variable profit after tax (PAT). However, the F-statistic value is 28.14511 and its p-value is 0.00000 indicating that the independent variables jointly can impact significantly in profit after tax (PAT). The Durbin-Watson reveals that there is no serial correlation in the variables.

Table 4: Panel Least Square (Random Effect Model)

Dependent Variable: PAT
Method: Panel EGLS (Cross-section random effects)
Periods included: 10
Cross-sections included: 5
Total panel (balanced) observations: 50
Swamy and Arora estimator of variable variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.960984	1.029169	-2.877064	0.0061
SHC	0.784525	0.138579	5.661212	0.0000
SHP	-0.000395	0.041111	-0.009604	0.9924
STD	0.114985	0.211283	0.544223	0.5890
LTD	0.578290	0.135815	4.257936	0.0001
FZ	0.539312	0.287227	5.877649	0.0141
	Effects Specification			
			S.D.	Rho
Cross-section random			0.279383	0.4741
Idiosyncratic random			0.294276	0.5259

R-squared= 0.519093, Adjusted R-square = 0.476345, F-statistic = 12.14328, Prob F-statistic = 0.000001, Durbin-Watson stat = 0.747451

Source: Data analysis (2018)

Random effect estimation result presented in table 4 revealed that share capital exerts significant positive impact on profit after tax, with coefficient estimate of 0.784525 (p=0.0000< 0.05), share premium exerts insignificant negative effect on profit after tax with coefficient estimate of -0.000395 (p=0.9924> 0.05),short term debt exerts insignificant positive effect on profit after tax, with coefficient estimate of 0.114985(p=0.5890> 0.05), effect of long term debt is positive and significant, with coefficient estimate of 0.578290(p=0.0001< 0.05), firms size exerts significant positive impact on profit after tax, with coefficient estimate of 0.539312(p=0.0141< 0.05). R-square value reported in table 4.5 stood at 0.519093, which connotes that about 51% systematic variation in profit after tax can be explained by short term debt, long term debt, share capital, share premium and firms size. Lastly, the p-value of F statistics is 0.000001, this implies that the independents variables jointly influence profit after tax (PAT).

Table 5: Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.283035	5	0.2004

Source: Data analysis (2018)

Table 5 presents the result of Hausman test. Meanwhile, the result shows the chi-square value of 7.28 alongside a probability value of 0.2004. The result shows that there is no enough evidence to reject the null hypothesis that differences in coefficients of fixed effect estimator and random effect estimation is not significant. It stands that the random effect estimation presented in table 4 is the most suitable estimation for the analysis of the impact capital structure disaggregated into short term debt, long term debt, share capital, share premium and firms size respectively.

5. Conclusion and Recommendations

The study concluded that short term debt has declining effect on the profitability of manufacturing firms in Nigeria, while the long term variable of debt finance of firms spurs the rate of profitability. In clear term, disaggregated debt finance subset exerts significant effect of the profitability of firms sampled in the study. On the other hand equity finance disaggregated into share capital and share premiums reflect insignificant

effect on profit after tax, while only share capital reflecting positive effect, while the effect of share premium is negative. Thus, the result of this study correlates with the studies by Sunday (2015) and Ahmad et al. (2012) that found a positive relation between long-term debt and return on equity. Also, Kakanda, Bello and Abba (2016) in their study on effect of capital structure on performance of listed consumer goods companies in Nigeria affirmed that short-term debt has no significant effect on capital structure, whereas, long-term debt has significant positive effect on the financial performance.

It is also in consensus with Myers and Majluf's (1984) theory, which states that a positive relationship exists between long-term debt and profitability of a firm. Thus, it specifically implies that capital structure has a significant impact on firm's performance. This result is contrary to the one obtained by Abeywardhana (2015) on capital structure and profitability of SMEs in the Uk established a Negative correlation between capital structure and profitability. Also, in the study of Samuel (2016) on the impact of capital structure on profitability of manufacturing industries in Ghana, short-term debt and long-term debt were negatively related to profitability, while equity was positively related to profitability. From these findings, the study recommended that manufacturing firms in the country should restructure their capital structure more to favor long term debt in order to bolster the level of profitability, also the fraction of short term debt should be reduced in the composition of capital structure, so as to minimum the deleterious effect it might pose on the profit prospect of the firms and more attention should be given to share capital than share premium in the make of equity finance of manufacturing firms in the Nigeria.

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Working Capital Management and Performance of Industrial and Consumer Goods Firms in Nigeria: A Comparative Analysis

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Abstract: This study conducted a comparative analysis on working capital management and performance of industrial and consumer goods firms in Nigeria. Precisely, the study compared effect of average collection period and average payment period on return on capital employed of selected industrial goods and consumer goods firms. 20 firms were randomly selected over a period of 10 years data were collected from annual report of the firms. This study used static data analyses to analyze data. Result showed average collection period and average payment period exert insignificant positive effect on return on capital employed of industrial goods firms, while both average collection period and average payment period exert insignificant negative effect on return on capital employed of consumer goods firms. Independent t-test result showed significant mean difference between coefficient estimate corresponding to industrial and consumer goods firms. This study concluded that there exists significant difference between the effect of working capital management on performance of industrial goods firms and consumer goods firms when performance is measured in terms of return on capital employed. Hence firms in both sub-sectors should be strategic when managing working capital, by setting higher average payment period in a manner that will not crowd-out their credit worthiness.

Keywords: *Working Capital Management, Firm's Performance, Comparative Analysis.*

1. Introduction

In business, especially manufacturing sector, effective working capital management is a means of enhancing performance, in order to gain competitive advantage in the manufacturing sector. Performance is the ability of a firm to use its assets to improve competitiveness (Iswatia, 2007). Effective and efficient working capital management is needed to achieve performance. In Nigeria, there are many shareholders who have invested heavily in manufacturing firms; due to the emergence of market that have been created domestically and internationally for manufactured products as pointed out by the activities in the stock market. Ogundipe, Idowu & Ogundipe (2012) opined that, an improper management of working capital components that is account payables, account receivables and inventories will affect firm's operation. As witnessed in Nigeria, many manufacturing firms are shutting down among other factors, owing to poor working capital management. Few examples of such manufacturing firms are, Kastina steel, Aba textile mill Ltd, Golden guinea breweries Umuahia and Ajaokuta steel complex which reduced its staff from 5000 to 1000 in year 2008 (Jegede, 2017). This study was motivated by the evident problems of improper management of working capital components and the need for improve performance of the manufacturing sector in Nigeria, in the face of economy challenges as pointed out by Jegede (2017), the performance of the manufacturing sector.

In Nigeria, has not been significant due to improper management of working capital. According to Oladunjoye (2011), the performance of the manufacturing sector in Nigeria has been grounded among other things due to inadequate management of resources. Visibly, most previous studies in examination of working capital management and performance of quoted manufacturing firms, did not take into cognizance the uniqueness across sub-sectors of manufacturing sector (heterogeneity effects); this means that, previous studies treated firms across sub-sectors of the manufacturing sector as the same, with no consideration of the possible heterogeneity effects based on differences in operation and contribution of each sub-sector to the manufacturing output as a whole, examples of previous studies are; Ajayi, Abogun & Odediran, 2017; Madugba & Ogbonnaya, 2016; Eya, 2016; Akindele & Odusina, 2015; Osundina, 2014; Angahar & Alematu, 2014; Ojeani, 2014. Hence, this study conducted a comparative analysis, to compare the effect of working capital management on performance of industrial goods sub-sector with that of consumer goods sub-sector of the Nigerian manufacturing sector. Objectively, this study analyzed and compared the effect of average collection period and average payment period on return on capital employed of industrial goods sub-sector with that of consumer goods sub-sector of the manufacturing sector in Nigeria.

2. Literature Review

Working Capital Management: Working capital management involves planning and controlling current assets and current liabilities in a manner that eliminates the risk of inability to meet short term obligation on one hand and avoid excessive investment in these assets, on the other hands (Elejelly, 2004). Lamberson (1995) opined that working capital management has become one of the most important issues in organization where many financial managers find it difficult to identify the important drivers of working capital and the maximum level of working capital. Firms can maximize risk and enhance financial performance where there is thorough understanding of the importance and drivers of working capital. The objective of working capital management is to achieve desired tradeoff between liquidity and profitability (Raheeman & Nasr, 2007). To buttress the importance and drivers of working capital, Howorth & Westhead (2003); Deloof (2003); Afza and Nazir (2007), stated that; efficient management of working capital is an important strategy which aims at increasing the market value of a firm. To increase market value of a firm management of firms will use the combinations of working capital policies and working strategies for working capital management. Uyar (2009) stated that, working capital policy is the key policy area which relate to the level of investment in working capital for a given level of operation and the extent to which working capital is financed from short-term funds such as a bank overdraft. A company should have working capital policies on the management of inventory, trade receivables, cash and short-term investments in order to minimize the possibility of illiquidity and inefficiency (Chittenden, Poutziouris & Micheal, 1998). Mathur (2003) opined that working capital policy can broadly be divided into three categories as: Conservatives policy, Aggressive policy and Moderate policy.

The Conservative policy is used when a firm prefers to hold rather heavy cash and bank balance in current account or investments in readily marketable securities and as such having higher stock of raw materials and finished goods, so as to reduce the risks of out of stock and loss of sales while the aggressive know as restrictive working capital policy is used when a firm choose to operate with lower levels of inventory trade receivables and cash for a given level of activity or sales (Chittenden et al., 1998). It may result in disproportional losses because of the risk of stock out and subsequently loss of production as well as losing sales which can negatively have effect on the financial performance (Profitability) of the firm. Under the Moderate policy, the firm tends to tread a middle path between the aggressive and conservative approaches of working capital policy. That is the level of working capital will be moderate neither too high nor too low but just proportionately. However, a firm can choose to employ both policies in order to maintain a satisfactory level of working capital (Charitou, Lois & Christoforou, 2016). According to Chittenden et al. (1998), the working capital policies of a company can be characterized as aggressive, moderate or conservative only by comparing them with the working capital policies of similar companies. Working Capital Management policy deals with the first decision of "how much to invest in current assets to achieve the targeted Revenue" while working capital management strategies or approaches deal with the second decision of how should current asset investment be financed, that is, the mix of long- and short-term finance. Also working capital strategies are divided into Aggressive Conservative and Hedging (Maturity Matching). Effective working capital management is vital to the stability and survival of a business, just as the human heart is vital to the life of any human being. Effective working capital management forms a crucial basis for well performing and growth-oriented firms (Jagongo & Makori, 2013; Knauer & Wohrman, 2013).

Account Receivables Management: According to Aminu & Zainudin (2015), receivables represent unpaid credit extended to customer by the business. That is, account receivables are customers who have not yet made payments for goods or services which a firm has provided. Account receivables are also called debtors arise from sales on credit (Van Hore, 2001). Since the purposes of offering credit are to maximize profitability, the cost of debt collection should not be allowed to exceed the amount recovered. Therefore, account receivable management constitutes the management of firm's debtors. Firms should put in place policies that will afford them the ability to monitor their receivables. Firms that are not diligent in managing their credit operations can suffer large losses from bad debt, especially during recession, when customers may have trouble paying their bills (Moles, Parriso & Kidwell, 2011). For account receivables to be effectively managed, credit policy and collection period play very vital roles, since this credit policy and collection period largely influence the management of account receivable. Moles et al. (2011), advice that, it is very important for firms to consider the credit rating of a customer before granting credit to avoid bad debts.

Shim & Siegel (2000) pointed out that, accounts receivable management includes selecting the good customers and speeding up the collections from such customers. Efforts should be made by firms to put proper measures in place that will enable them go after late payers and also have a regular trade receivables analysis. Van Hore & Wachowicz (2004) stated that, some thoughts could also be given to charging interest on overdue accounts to encourage timely payment depending on the likely response by customer to reduce the risk of bad debt it is imperatives for firms to carefully assess the credit worthiness of new customers before credit is granted to them. Also, a firm needs to review on regular interval the credit worthiness of existing customers. Firms need to have necessary information about the company it is to have business dealing with, so as to make informed decision and judgement (Padachi, 2006). The necessary information a firm need, can be gotten from variety of sources such as asking new customers to provide bank references to confirm their financial standings and trade reference to indicate satisfactory conduct of business affairs. Other sources could be audited accounts and report of prospective customers, past experience with similar companies can serve as a useful basis of making decision etc. Furthermore, Brealey, Myers & Allen (2006), described account receivables management to involve the following steps: first firms should decide the sales terms on which firms sell their goods to their customers, secondly firms should make decision on what evidence a firm requires from their customers who owes the payments, thirdly firms should analyze the risky customers and non-risky customers who are likely to pay their bills, this is termed trade receivables analysis. Fourth, firms should draw up the credit policy that will show to what extent the firms will allow their customers to pay their bills on credit terms. Fifth, firms should design a collection policy that will enable those makes sales on credit and advert, the problems of collecting the payment when the bills become due.

Account Payables Management: This is one of the major sources of secured short term financing (Gitman, 2009). It is the major single class of short-term debt. Account payables are said to arise as a result of when firms purchase on credit and the debt is recorded as Account payable. This is to say that account payables are suppliers whose invoice for goods or services have been processed but have not yet been paid. Most organization often regard the amount owes to creditors as a source of free credit, it is free when firms make payment within the discount period, while it is said to be costly when firms forego available discounts and decide to make payment after the due date thereby incurring substantial additional costs. Utilizing the value of relationship with payee is a sound objective that should be highlighted as important as having the optional level of prevention. This is to say that a sound healthy relationship between firms and their supplier should be regarded as very important as trying to prevent excessive and unwanted debt. According to Singh (2004), the liquidity of position firms mainly depends upon, accounts receivable collection and payable deferred policing as well as inventories conversion period of firms. As such, trade credit is used as a marketing tool to facilitate the selling process and to compete in the market. Also credit terms are integral part of firms pricing policy, placing credit terms favorably, such as lengthening a credit period or increasing a cash discount is equivalent to a price cut, thus enabling the firm to evade price restrictions, and this subtle technique, also provides the seller a more flexible approach to pricing without fear of competitor retaliation (Schwartz, 1994; Cheng Pike, 2003).

Firms are advised to strike a balance when trying to main maximum cash flow by delaying payments as long as it is reasonably possible and when trying to create and maintain positive credit ratings as well as good relationships with supplies and creditors. Although credit is a vital part of effective cash positioning and purchasing initiate cash outflows but overzealous purchasing function can create liquidity problems (Duru & Okpe, 2016). That is why account payable should be seen at all times as debts that must be paid off within a given period to avoid default. Uyar (2009) stated that, account or trade payables deferral period is the average time taken by a company to pay its trade payable (supplies). This trade payables deferral period is computed by dividing account payables by net purchases multiplies by 365 days (Raheeman & Nasr, 2007). The number of days account payables, reflect the average time it takes firms to pay their supplies, the higher the number; the longer firms take to settle their payment commitments to their suppliers. The average payables period is used as a proxy for account payables period which is a partial component of the cash conversion cycle and this cycle is used to measure the efficiency of working capital management (Brigham & Ehrhardt, 2004). While the account payables turnover ratio is a short-term liquidity measure used to quantify the rate at which a company pays off its suppliers. It is calculated by taking the total purchase made from suppliers or cost of sales and dividing it by the average account payables amount during the same period. This measure shows investors how many times per period the company pays it average payables amount.

The account payables are listed under a company current liability on its balance sheet. Note that if the account payables turnover ratio is falling from one period to another this is a sign that the firm is taking longer to pay off its suppliers than it was in previous time periods, but if is increasing from one period to another it means that the firms paying off suppliers at a faster rate. So the effective management lies on whether the firm is enjoying the actual credit period offered by the suppliers and how positively it has impacted the firm's liquidity position/financial performance.

Industrial Goods Sub-Sector: Industrial goods sub-sector is a sub-sector of manufacturing sector that is responsible for the production of raw materials, equipment, or product components (industrial goods) required by businesses for the production or distribution of goods or other services (Chete, Adeoti, Adeyinka & Ogundele, 2016). Currently in Nigeria, the industrial goods sub-sector has seventeen companies as listed in the Nigeria stock exchange. According to Central Bank of Nigeria economic report (2000), before independence in 1960, the Nigerian economy was mainly agrarian both in production for domestic consumption and exports. But post-independence, after the discovery of oil and its exploration and exportation in commercial quantities, the fortunes of agriculture gradually diminished and industrialization sprang up. Based on Central Bank of Nigeria Purchaser's manager's Index report (PMI) 2017, firms in the industrial goods sub-sector contributed to the growth of the manufacturing sector, which in turn led to the expansion of the Nigerian economy. Based on Central Bank of Nigeria PMI report, one can assert that, firms of the industrial goods sub-sector have an effective management of their working capital components due to their contributions to the economy.

Consumer Goods Sub-Sector: Consumer goods sub-sector is the sector that deals with the finished products that are available for public consumption (Aluko, 2018). This implies that, this sub-sector deal primarily with the process of manufacturing goods for consumption by end users. It is also regarded as a sub-sector which creates goods that are consumed rather than goods that are used for production. Based on Central bank of Nigeria PMI report, firms of the consumer goods sub-sector, contributes positively to economic growth in Nigeria. Adebayo (2016) stated that, the consumer goods sub-sector in Nigeria is home to many giant multinational companies and host to domestic companies who serve its over 170 million people. Consumer goods sub-sector remains one of the most attractive sub-sectors of the manufacturing sector because of the number of people it serves and its contribution to the economy, this implies that; firms of the consumer goods sub-sector also have an effective management of their working capital components due to their contribution to the economy.

Empirical Review: Niresh (2012) examined working capital management and financial performance of manufacturing sector in Sri Lanka. Where return on asset and return on equity were used as proxies for financial performance. The study employed correlation and regression analysis models for analyzing data and result of the analysis revealed that, there is no significant relationship between cash conversion cycle and performance measures and hence the study concluded that manufacturing firms in Sri Lanka should follow conservative working capital management policy. Caballero, Teruel, & Solano (2014), conducted a study on working capital management, corporate performance and financial constraints in United State of America. The purpose was to examine the relationship between working capital management and corporate performance. The researchers used financial ratios and simple linear regression analysis to analyze data and the result showed that, there is a high statistically significant U-shaped inverted relationship between firm's performance and working capital management.

The researchers concluded that, when a firm has an ideal level of investment in its working capital then it will balance expenses and benefits which ultimately maximize the firm's performance. Naeem, Malik, Muhammed & Mehbood (2014), examined the effect of working capital management on firm's performance. The purpose of the study was to investigate whether, working capital management affect the performance of non-financial firms listed on Pakistan stock exchange. Panel data model was used to analyze data. The researchers used three variables to proxy performance, they are; gross profit margin, return on asset and return on equity. While average inventory period, average collection period and average payment period, where the working capital variables tested. The study revealed that, working capital management statistically insignificantly has effect on firm's performance. Osundina (2014) conducted a study on the relationship between working capital management and profitability of quoted food and beverages manufacturing firms in Nigeria.

Operating profit was used to measure profitability. The researcher made use of primary data through survey research and regression analysis (OLS) was used to establish the relationship between profitability and working capital components. The result revealed that, working capital management has significant positive relationship with profitability. Salman, Oyetayo & Oriowo (2014), conducted a study on working capital management and profitability of selected listed manufacturing companies in Nigeria. Data were sourced from audited financial statements of the firms selected. Data were analyzed using Pearson correlation coefficient and multiple regression analysis, while ordinary least square (OLS) was used for estimation. The result revealed that, working capital has significant negative effect on return on assets (ROA) and return on equity (ROE). The researchers concluded that, firm's performance can be increased with short size of cash conversion cycle. Akindele & Odusina (2015) examined the relationship between working capital management and firm's profitability of quoted companies in Nigeria. Data were sourced from audited financial statements of the companies. Data collected were analyzed using multiple regression analysis and the result revealed that, there is a negative relationship between working capital component (cash conversion cycle) and firm profitability that was proxy by return on asset (ROA). Mun & Jang (2015) examined working capital management and profitability of United State of America restaurants. The researchers employed simple linear regression analysis to analyze data collected and the findings revealed a significant inverted U-shape relationship between working capital.

Management and a firm's profitability (Return on Assets) and this indicated the existence of an optimal working capital management level for United State of America restaurants. The researchers concluded that a firm's cash level is an essential element for an efficient working capital management. Eya (2016) examined the effect of working capital management on performance of food and beverages industries in Nigeria, using Nestle Food Nigeria plc as a case study. The researcher made use of Ordinary Least Squares (OLS) estimation and regression analysis, to analyze data used in the study. The significant of the study was to show how companies manage their working capital. The findings revealed that, working capital management have a positive effect on performance. The researcher concluded that, the management of working capital is important to business organization performance and among other variables management of Nestle Food Nigeria plc should pay more attention to the quick ratio as its management indicates the best way of measuring the amount of the most liquid current assets. Haruna (2016) conducted a study on the effect of working capital management on performance of small and medium enterprises in Nigeria. The significant of the study was to show the need to properly manage the available financial resources. The researcher made use of regression models to analyze data. The findings revealed that, working capital management have positive effect on performance of Small and Medium Enterprises. Li (2016) conducted a research on working capital management and its effect on the profitability of Chinese listed firms. The researcher analyzed data, using both descriptive statistical analysis and regression analysis. The researchers concluded that efficient working capital management increases financial performance.

The purpose of the study was to show the main factors that impact working capital practices of some listed firms in China across the different industries and their effect on the firm's performance. The findings revealed that, Chinese listed firm's working capital policy is different across industries and stable over the research period. The researcher concluded that firms in China are prone to choose conservative working capital policy, which was shown to be positively associated to the firm's profitability. Madugba & Ogbonnaya (2016) conducted a study on working capital management and financial performance: Evidence from manufacturing companies in Nigeria. These researchers used multiple regression analysis to analyze data sourced from published financial statement of the firms under study. The findings of the study revealed that, average payable period and average collection period have effect on the earnings per share (EPS) of manufacturing companies. Therefore, it was concluded in the study that working capital management have effect on financial performance of manufacturing companies in Nigeria. Ajayi, Abogun & Odediran (2017), conducted a study on the effect of working capital management on financial performance of quoted consumer goods manufacturing firms in Nigeria. Secondary data were used, which was obtained from annual financial statements. Descriptive statistics was used to measure variations, while data was analyzed using correlation and panel regression analysis. The result revealed that, there exist a negative relationship between cash conversion cycle and financial performance while there a positive relationship between average collection period and financial performance. The researchers concluded that efficient working capital management increases financial performance.

3. Research Method

Model Specification: The model used in this study specified return on capital employed (ROCE) as a function of average collection period (ACP), and average payment period (APP), alongside control variables including firm's size (FZ) and asset tangibility (ATANG). The model for the study is specified in function and linear forms below:

Functional and linear forms below:

ROCE=f (ACP, APP, FZ, ATANG)

Linear representation of the models:

$ROCE_{it} = \delta_0 + \delta_1 ACP_{it} + \delta_2 APP_{it} + \delta_3 FZ_{it} + \delta_4 ATANG_{it} + \mu_{it} ----(3.1)$

Scope and Source of Data

This study sample twenty (20) manufacturing companies in Nigeria cutting across consumer goods sub-sector, and industrial goods sub-sector in Nigeria. Sampled industrial goods firms included Cutix Plc, Meyer Plc, Lafarge Africa plc, Berger Paints Plc, First Aluminium Nigeria Plc, Postland Paints and Products Nigeria Plc, Beta Glass Plc, Premier Paints Plc, Paints and Coatings Manufactures Plc, and Dangote Cement Plc, while sampled consumer goods firms included Unilever Nigeria Plc, PZ Cussons Nigeria Plc, Guinness Nigeria Plc, Nigerian Breweries Plc, Dangote Sugar refinery Plc, Nascon Allied Industries Plc, Dangote Flour Mills Plc, Flour Mills Nigeria Plc, Nestle Nigeria Plc, Vitafoam Nigeria Plc. The study employed static panel data analyses and pooled OLS estimator (fixed effect estimator, and random effect estimator), alongside post-estimation tests such as restricted f-test, Hausman test.

Analytical Framework: Samples used in this study were selected, using random sampling technique to establish the study area. The model used in this study showed that, the independent variables can cause a change (effect) in the dependent variables and the model was designed to test the significance of the population variance and as well as to evaluate the relationship among variables, with significance of beta value at 5% was interpreted using the probability values (P-value).

4. Data Analysis and Results

Pooled OLS Estimation

Table 1: Pooled OLS Estimation for Industrial and Consumer Goods Sub-Sectors
Series: ROCE ACP APP FZ ATANG

ESTIMATION FOR INDUSTRIAL GOODS			ESTIMATION FOR CONSUMER GOODS		
	ROCE			ROCE	
Variables	**Coefficients**	**Probability (P-value)**	**Variables**	**Coefficients**	**Probability (P-value)**
C	118.713	0.000	C	114.6776	0.000
ACP	-.0740812	0.178	ACP	.014213	0.746
APP	-.0224144	0.516	APP	-.0130166	0.528
FZ	-4.785711	0.000	FZ	-5.299746	0.002
ATANG	-1.459307	0.916	ATANG	28.02316	0.008
R-squared=0.5590			R-squared=0.6342		
Adjusted R-Squared=0.5236			Adjusted R-Squared= 0.5978		
F-Statistics=4.49			F-Statistics=3.68		
Probability(F-Statistics)= 0.0023			Probability(F-Statistics)= 0.0078		

Source: Authors Computation (2019)

Estimation results presented in table 1 revealed that both average collection period and average payment period exert negative effect on return on capital employed of industrial goods firms sampled in the study, with coefficient estimation of -0.0740812(P-value=0.178 > 0.05), and -0.0224144(p=0.516 > 0.05). For consumer goods firms, while average collection period exerts insignificant positive effect on return on capital employed with coefficient estimation of 0.014213(P-value=0.746 > 0.05), average payment period exerts insignificant negative impact on return on capital employed with coefficient estimation of -0.0130166 (P-

value=0.528 > 0.05). Reported R-squared stood at 0.5590 and 0.6342 for industrial goods and consumer goods respectively.

Table 2: Fixed Effect Estimation for Industrial and Consumer Goods Sub-Sectors
Series: ROCE ACP APP FZ ATANG

ESTIMATION FOR INDUSTRIAL GOODS			**ESTIMATION FOR CONSUMER GOODS**		
	ROCE			**ROCE**	
Variables	**Coefficients**	**Probability (P-value)**	**Variables**	**Coefficients**	**Probability (P-value)**
C	132.8605	0.072	C	186.2147	0.000
ACP	.019889	0.666	ACP	-.0046292	0.890
APP	.0218892	0.374	APP	-.0008444	0.961
FZ	-7.480904	0.134	FZ	-6.549103	0.001
ATANG	13.25505	0.466	ATANG	-29.9852	0.009
Cross-Sectional Effects			**Cross-Sectional Effects**		
MEYER	48.06133	0.000	PZ CUSSONS	-46.39357	0.000
WAPCO	11.17615	0.701	GUINNESS	-6.495728	0.252
BERGER	25.96821	0.008	NIGBREW	-4.226315	0.496
FIRSTALUM	-21.45898	0.140	DANGSUGAR	-24.58557	0.000
PORTPAINT	40.61835	0.000	NASCON	-18.02632	0.019
BETAGLAS	-4.110097	0.816	DANGFLOUR	-34.37387	0.000
PREMPAINT	-22.77673	0.039	FLOURMILLS	-39.23654	0.000
PAINTCOM	-10.42224	0.231	NESTLE	-2.846786	0.584
DANGCEM	34.21057	0.317	VITAFOAM	-40.08782	0.000
R-squared=0.7496			R-squared=0.6455		
Adjusted R-squared=0.7118			Adjusted R-squared= 0.5920		
F-statistics=19.80			F-statistics= 12.05		
Probability(F-statistics)= 0.0000			Probability(F-statistics)= 0.0000		

Source: Authors Computation (2019)

Estimation results presented in table 2 revealed that both average collection period and average payment period, exert insignificant positive effect on return on capital employed of industrial goods manufacturing firms, with coefficient estimation of .019889 (P-value=0.666 > 0.05) and -0.0218892 (P-value= 0.374 > 0.05) respectively. On the other hand, estimation result for consumer goods sub-sectors revealed that both average collection period and average payment period exert insignificant negative effect on capital employed, with coefficient estimation of -0.0046292 (P-value= 0.890 > 0.05), -0.0008444 (P-value=0.961 > 0.05) respectively.

Table 3: Random Effect Estimation for Industrial and Consumer Goods Sub-Sector
Series: ROCE ACP APP FZ ATANG

ESTIMATION FOR INDUSTRIAL GOODS			**ESTIMATION FOR CONSUMER GOODS**		
	ROCE			**ROCE**	
Variables	**Coefficients**	**Probability (P-value)**	**Variables**	**Coefficients**	**Probability (P-value)**
C	118.0787	0.025	C	120.2984	0.000
ACP	.0134621	0.762	ACP	-.017534	0.622
APP	.0191908	0.419	APP	-.0080715	0.654
FZ	-5.906343	0.058	FZ	-4.633044	0.009
ATANG	15.00001	0.334	ATANG	-5.357673	0.606
R-squared=0.6248			R-squared=0.6386		
Wald chi2(5) = 17.10			Wald chi2(5) = 8.23		
Probability> chi2 = 0.0018			Probability> chi2 =0.0434		

Source: Authors Computation (2019)

Estimation results presented in table 3 revealed that both average collection period and average payment period exert insignificant positive effect on return on capital employed of industrial goods manufacturing firms, with coefficient estimation of 0.0134621(P-value=0.762 > 0.05) and 0.0191908(P-value=0.419 > 0.05) respectively. On the other hand, estimation result for consumer goods sub-sector revealed that both average collection period and average payment period exert insignificant negative effect on return on capital employed, with coefficient estimation of -0.017534(P-value=0.622 > 0.05) and -0.0080715(P-value=0.654 >0.05) respectively.

Post Estimation Test

Table 4: Restricted F Test of Heterogeneity (Cross-Sectional and Time Specific)

	F-Statistics	Probability
Consumer Goods	13.78	0.0000
Industrial Goods	22.54	0.0000

Source: Authors Computation, (2019)

Table 5: Hausman Test

	Chi-Square Stat	Probability
Consumer Goods	2.13	0.7118
Industrial Goods	0.58	0.9655

Source: Authors Computation, (2019)

Post-estimation test result presented in table 4 revealed that incorporating fixed effect into the intercept term of the model to track firm's heterogeneity effect among sampled firms is justified for both industrial goods and consumer goods sub-sector, with estimation statistics of 13.78 (P-value=0.0000 < 0.05) and 22.54 (P-value=0.0000 < 0.05) respectively. In the same vein Hausman test result presented in table 5 revealed that, there is no enough evidence to reject the null hypothesis that difference between fixed effect and random estimation result is not significant for industrial goods and consumer goods sub-sector. Hence, the most consistent and efficient estimation for both industrial goods and consumer goods sub-sector is the random estimation as contained in table 3.

Table 6: Independent T-Test of Coefficient Estimates for Industrial and Consumer Goods Sub-Sectors

WORKDING CAPITAL MANAGEMENT AND RETURN ON CAPITAL EMPLOYED					
Subsectors	**Mean**	**T-test calculated**	**DF**	**Probability**	**Remark**
Industrial goods	0.0163	5.267	2	0.034 < 0.05	Reject H_0
Consumer goods	-0.0128				

Source: Authors Computation (2019)

Independent t-test statistics presented in table 6 for working capital management and return on capital employed revealed that there is enough evidence to reject the null hypothesis that there is no significant difference between the effects exerted by working capital management variables on firms performance measured in terms of return on capital employed, hence the test result established that there is significant difference between the effect of working capital management on performance of industrial good firms and consumer good firms, when performance is measured by return on capital employed.

Discussion: Test results presented in tables 4, 5 and 6 revealed that, there is significant difference between the effect of working capital management on performance of industrial good firms and consumer good firms when performance is measured by return on capital employed. Specifically both average collection period and average payment period exert insignificant positive effect on return on capital employed of industrial goods manufacturing goods firms, with reported coefficient estimation of 0.0134621(P-value=0.762 > 0.05) and 0.0191908(P-value=0.419 > 0.05) respectively, while both average collection period and average payment period exert insignificant negative effect on return on capital employed of consumer goods industrial, with reported coefficient estimation of -0.017534(P-value=0.622 > 0.05) and -0.0080715(P-

value=0.654 >0.05) respectively. Observably, discoveries made in this study are equivalent with the findings of previous researches such as Naeem, Malik, Muhammed and Mehbood (2014), Akindele and Odusina (2015), Madugba and Ogbonnaya (2016).

5. Conclusion and Recommendations

The study established that there is significant difference between the effect of working capital management on performance of industrial good firms and consumer good firms when performance is measured by return on capital employed. Hence, firms in both industrial goods sub-sector and consumer goods sub-sector of the manufacturing sector in Nigeria should be strategic in harnessing the capacity of average payables period to manage working capital, so as to ensure that setting higher average payables period to better position working capital for improved firm's performance does not crowd-out their credit worthiness.

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How Promotional Advertisements Can Change the Buying Behavior of Children

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Abstract: This study aims to highlight the impact of promotional advertising on children's buying behavior. Promotions are tools that maximize the sales of any organization. Retailers or manufacturers apply this tool to invite consumers to buy more products. The proposed study aims to focus the advertising impact on child purchases in the Pakistani capital. It is convenient to sample 500 respondents and collect data with the help of the questionnaire. The results show that there is a negligible correlation between the purchase behavior and coupons. On the contrary, buying one-to-one free, the physical environment impacts significantly on the purchase behavior. The proposed research helps marketers recognize most effective promotional ads that can significantly affect a child's buying behavior.

Keywords: *Promotions, coupons, children buying behavior, discount, free sampling.*

1. Introduction

A promotion or advertisement is a basic tool used by a retailer or manufacturer to invite customers to purchase additional products. The output results one get from the promotion are high income, new customer invitations and more sales growth. Growth leads to more customer acquisition and increased mediation or efficiency, as well as supplier cooperation. When a trader conducts very little cognitive activity, the purchase conditions are normal. Of course, it is difficult to encourage changes to the brand or increase the purchase of equipment. Increasing interest in marketing campaigns has led to increased research in this area. For example, due to increased sales, there is a large body of literature on customer response. Increased interest in the use of key marketing promotions has led to unprecedented growth in research in this area (MOULAND, 2002). Promotional sales have a comprehensive promotional tool designed to create easy-to-use conversations (Gilbert & Jackaria, 2002). They said that sales promotion tools are encouraging consumers to think and at the same time evaluate brands and buying opportunities. Therefore, advertising tools and advertising strategies are used by traders to be able to know the initial opportunities of their customers and to increase their sales. This fact shows that many consumers can easily be squeezed when they recognize the term "sales promotion." In addition to reducing discounts or promotions of credit cards offered by retailers and other marketing tools such as free purchases and payments received without indicating that they make consumers buy additional advertising strategies used by vendors to attract customers and increase sales (Gilbert & Jackaria, 2002).

Previous research has shown that creative advertising and price information affect consumers' perceptions of value and readiness to buy (Das, 1992). The aim of this study to highlight the impact of different instruments on consumer purchasing behavior, therefore learning tools are very important for recognizing the most powerful tools to compete with their competitors. The purpose of this study is to carefully review the client's love of the advertising tools. Using this information, retailers and retailers can plan their resources for the most profitable. The purpose of this study is to study the bias of the media consumption device, and retailers will be able to understand buyers' behavior to use the most effective and successful customer engagement techniques. Ads usually include discount free coupons and a guarantee package, but in this study, we are going discuss the impact of the discount voucher and stocks on buyer behavior. The natural environment is a factor that affects customer behavior when purchasing. These advertising techniques influence the buyer's behavior when purchasing goods. Previous studies have shown that these factors have a significant impact on purchasing behavior. The effects of these instruments vary from country to country. So our findings can lead to different results from previous studies (Sinha & Smith, 2000). There are several types of short-term equipment that are used to make buyers and / or dealers accelerate purchases or increase sales volumes. Sales promotion is an integral part of the commercial mix and marketing tool. The result of this sale is the promotion of the use of high-quality stocks, attracting new customers and increasing sales.

2. Literature Review

Advertisement is a tool that is used by retailers or manufacturers to attract customers to buy multiple services or products or trials. Sinha and Smith (2000), have pointed out that rising sales may be beneficial to users who plan to advertise at a reasonable price. Many of them use trademark change so they can buy big deal and create their own smart products and these users have been popularized. These users have tested new products or services that are installed. For example, lowering prices within a deadline to attract new customers is called "price promotions." Promoting sales means that the manufacturer uses any activity to provide retail (wholesale or wholesale) retail networks and to enable customers to buy the brand and increase their sales. Sales promotion refers to a variety of incentives and methods to create immediate sales efficiency (Totten & Block, 1994). Sales are increased by 75% of total market budget as stated by the packaging stats (Neslin, 2013). Compared to the traditional sales increases, improving online sales of goods has almost similar goals, goals and actions even in a particular environment. Promoting online sales is an activity that uses any incentives to target targeted users and increase their goal of purchasing specific products / services. Early market research both, theory and experiment, focuses on how sales have influenced consumer behavior, especially their purchasing decisions.

Most studies come to the conclusion that sales promotion can have serious consequences for behavior of users and purchasing decisions, although the effects of different compounds differ. Like retailers on the Internet, there are some advertising tools such as logos, pop-ups, pop-ups, emails, and hyperlinks to websites. These types of ads have a positive impact on online purchases (Thota, Song, & Larsen, 2010). The terms of coupon apply to the customer who is eligible for a subsidy for a normal product (Thota et al., 2010). Coupons are actually the certificates or vouchers that help consumers reduce prices for specific products (Cuizon, 2009). Discounts or reduced prices are limited and the coupon is displayed when the customer purchases the product. According to Thota et al. (2010) are easy to understand by customers and can be very useful for buying. Cards are a way for manufacturers to communicate with customers and can be used as converters. Park, Kim, Funches, and Foxx (2012), stated that for several years, as a way to show consumers how to reduce their costs and build brand awareness and loyalty for that purpose, they are being used as an important advertising tool. Indeed, the party changing the brand and brand trade suggests that consumers are influenced by the concessions announced in the party. It was noticed in a previous research that even after six months of having one of the stated proposals, the customer was more likely (even up to two to five times) to buy and use the trademark.

Customers do not get a card. Customers who received the card also had twice to show that they will buy a brand in the future. In the survey, new customers of three new credit card programs have shown that brands that accelerate sales profits by expanding and buying unsuccessful coupons. They also said that coupon promotion was among the less used and incomparable market instruments (MOULAND, 2002). One Free Get Free is a sales promotion approach that offers customers additional products at a normal price with improved package improvements. Customers can easily influence purchases of products as they do not receive additional costs and should be highly valued by consumers (Kim, 2002). Parks and schools say that large packaging and advertising of appropriate products increase the attractiveness of the program. When additional production is loaded without added value, consumers can persuade them to buy the product if the customer believes the money can be retained under the agreement. Bonus packages encourage consumers to buy products (Gilbert & Jackaria, 2002). Bonus packages are preferred by manufacturers or manufacturers because they need to increase product testing and store stores. According to scientists, advertising technology will have tremendous advantages for the manufacturer as it should help retailers clean up warehouses when prices are high (Bakewell & Mitchell, 2003).

3. Methodology

Descriptive type of research is used in this study. It can be explained in a specific situation, telling something or some obvious fact. Studies that explain the status quo rather than interpretation and judgment are descriptive. The core goal of descriptive research is the establishment of an accurate study of developmental hypotheses that project current state. Pilot studies have been completed prior to conducting actual research. The core study of the pilot study was that the sample of 500 respondents with computational reliability was

selected from different shopping centers in Islamabad. The questionnaire was used as a research tool for current research. The questionnaire consists of two main sections. The initial part contains the previous background of the respondent who is currently responding the questionnaire; the second part is the awareness about various promotional tools and the purchasing behavior of that person. In the first part, each person answering the questionnaire is asked to provide his/her current age, gender, education, monthly income, and status. Five items were selected in order to measure each variable. Each variable is calculated based on five items. To calculate the buyer purchase behavior, total eight items are used. Buy one get one free, coupons and an environmental factor, the physical environment has been tested. In this study, 5 points likert scale was used, 1 (strongly agree), and 5 (strongly disagree).

4. Results and Discussion

Core purpose of this section is to analyze and interpret data relevant to research questions in the survey. Univariate analysis explores each variable in the data set separately. It looks at the range and central tendency of the values at the same time. It describes each variable response mode on its own. It represents each variable by itself. The univariate descriptive statistics describe the individual variables. The descriptive analysis is based on the personal data of the respondents in the table below:

Table 1: Percentage-Wise Average Distribution of the Respondents in Correspond the Gender

Gender	Freq.	Percentage
Female	284	57
Male	216	43
Total	**500**	**100**

Table 1 illustrates that majority of the respondents i.e. 43 percent were female, while 57 percent of the respondents were male.

Table 2: Percentage-Wise Spread of Volunteers With Respect to their Age

Age	Freq.	Percentage
5-8	81	16.2
9-12	185	37
13-18	234	46.8
Total	**500**	**100**

Table 2 represents that 16.2% of respondents falls between the age group of 5-8, 37 % were belonging to 9-12, while 46.8% of the respondents fit in the age group of 13-18.

Table 3: Percentage Distribution of the Respondents With Respect to Educational Status

Educational Status	Frequency	Percentage
1-3 class	80	16
4-7 class	186	37.2
8-10& HSSC	234	46.8
Total	**500**	**100.0**

Table 3 points out that 16 percent of the respondents from 1-3 class, 37.2 percent had up to 4-7 level of education, most of the respondents 46.8 percent had 8-10& HSSC.

Table 4: Percentage Distribution of Respondents According to their Household Income

Income (Rs.)	Frequency	Percentage
Up to 35000	153	30.6
35001-45000	109	21.8
45001-55000	94	18.8
55001 or above	141	28.2
Total	**500**	**100**

Table 4 above describes the household income of respondents for all resources. The table shows that 36.7% of respondents reached the rupee. 35,000 households have monthly income, and 21.8% have rupees.

Household income from all sources is 35001-45000, of which 18.8% is Rs. 45001-55000, 28.2% have rupees more than 55001 monthly incomes from all aspects.

Table 5: Distribution of Variables With Respect to their Mean and Standard Deviation

Variables	Mean	Standard Deviation
Education	2.7333	1.03934
Gender	1.3167	0.46910
Income	2.5833	1.51032
Age	1.4833	0.65073

Table 5 depicts the relation of standard deviation and mean with respect to the average distribution of the variables. The values of the mean and standard deviation describe the mean of the variable being greater than its standard deviation. It highlights that the data is close to its average, so we can say that there is a difference between the data, so the attributes are good and the error probability is very low

Inferential Statistics: In this study, multi-line growth rates were made to examine the effects of the independent variables on the response rate. Regression modelling is an important method of analysis to identify causal links between variables and explanatory variables. This model is used to study the effects of more than two variables on the response variable. However, the determinants of the life assurance community behaviour are analysed by the regression model. Linear relationships are analysed by graphs, and the correct lines indicate that the model can be applied. The coefficient of this variable has a positive sign and the value of 0.288 has a strong significant correlation at the 1 and 5% significance levels. The regression analysis is performed using the regression method step by step. This procedure only includes those variables whose p-values of their regression coefficient are less than or equal to 0.05. As an alternative, this procedure only includes those variables in the sample that have a significant impact on the variable based on 1% or 5%. The entire regression analysis is performed using the Social Science Statistics (SPSS) version 17.0. The results of the gradual decrease regression analysis show that the above variables have a significant impact on the response threshold.

Table 6: Influence of Various Independent Variables on Dependent Variable: A Multiple Linear Regression Model

Variables	Unstandardized Coefficient		Standardized coefficient	T	Sig.
	B	Std. Error	Beta		
Constant	1.053	0.178		4.684	0.000**
Sale Promotion	0.540	0.085	0.288	3.373	0.000**
B1 G1	0.286	0.050	0.312	4.659	0.000**
Coupons	0.133	0.072	0.081	1.738	0.003*
Dependent Variable:	Consumer Behavior				
R^2 = 0.87	**F-value = 22.45 Sig. = 0.000****				

The value of R-Square is 0.87. This suggests that 87% of customer satisfaction is explained by three variables, such as promotional B1 G1 and coupons. The overall meaning of the model can also be judged by the F test. The F value is 22.45, which is significantly below the significant level of 5%. This also shows that the model is very important. The coefficient of this variable has a positive value with a value of 0.312 and a high significance at the 5% significance level. Sales promotions or the environment have a major impact on consumer buying behavior. Therefore, the results of this study indicate that the promotion and environment of retail stores are also an important factor affecting consumers' willingness to purchase, and have a strong and significant relationship with consumers' purchasing behavior. The coefficient of this variable has a positive sign and the value of 0.288 has a strong significant correlation at the 1 and 5% significance levels. It illustrates the strong positive impact a person has on consumer buying behavior. It pointed out that most of the respondents were affected by such proposals, which increased the sales of the products. It shows that useful product advertisements appeal to customers. The coefficient of this variable has a positive sign and the value of 0.143 is significant at the level of significance of 5%. It points out that promotional tools like the

coupons and sales options used by marketing companies are very important. These tools draw the attention of the customer if the tool's performance is higher than the customer's purchase level.

5. Conclusion

Advertising promotes the important role of merchants and retailers in marketing programs. By using promotional devices, promotional sales can generate more revenue and sales. Traders use many marketing techniques to give consumers more incentive to buy their products and then advertise in a classic way. The study, supported by research by Cuizon (2009), said that sales growth is not only effective in obtaining short-term sales, it is also a very effective tool compared to marketing communications, including advertising. A review of this study is that we have a positive attitude towards a positive buying behavior market. The survey confirms that buyers' attitudes can be promoted through various types, including promotional techniques such as free coupons and the body. In addition, the structure provides a new perspective on how different customers respond to the various multimedia devices offered by the market and their impact on consumer buying behavior, which may be a key market for your use of perfect strategies, promotions and advertising tools.

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