2017

# Nigerian Oil and Gas Industry Content Development Act's Perceived Performance Impact

Olakunle Thomas Ayoola
*Walden University*

# Walden University

College of Management and Technology

This is to certify that the doctoral dissertation by

Olakunle Ayoola

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Aridaman Jain, Committee Chairperson, Management Faculty
Dr. Thomas Butkiewicz, Committee Member, Management Faculty
Dr. Jules Klagge, University Reviewer, Management Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2017

Abstract

Nigerian Oil and Gas Industry Content Development Act's Perceived Performance Impact

by

Olakunle T. Ayoola

MTech, Curtin University of Technology, 2013

MS, Heriot-Watt University, 2010

BS, University of Ibadan, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Management

Walden University

February 2017

## Abstract

Petroleum-producing companies in Nigeria were forced to increase spending on Nigerian-sourced materials and services from $8 billion to $13 billion since 2010, due to the Nigerian Oil and Gas Industry Content Development Act. The act was enacted in 2010 to support local firms and improve the companies' performance. However, there is sparse research on how the act affected the companies' performance. This study was an examination of the impact of the act on the companies' performance. Bandura's social cognitive theory was the theoretical framework. The research questions of this descriptive correlational study were used to examine the act's effect on employee and organizational performance. The independent variable was employees' perception of the level of implementation of the act. The dependent variables were employees' perceived task and perceived organizational business performance. Collection of interval level survey data from 372 full-time employees of the 5 major petroleum-producing companies in Nigeria was possible by anchoring only the ends of the Likert scale with words. The Pearson product-moment correlation results indicated that the independent variable correlated positively with each dependent variable. The exploratory factor analysis results indicated that the act had a positive effect on the employees' internal competence factor and the organizations' operational performance factor. The results are significant for Nigerian government officials and managers of the companies in understanding the impact of the act on performance. The outcomes have potential implications for positive social change through improved implementation strategies to achieve the objectives of the act. Researchers could focus on examining the impact of the act on employees' internal competence factor in future studies.

# Nigerian Oil and Gas Industry Content Development Act's Perceived Performance Impact

by

Olakunle T. Ayoola

MTech, Curtin University of Technology, 2013

MS, Heriot-Watt University, 2010

BS, University of Ibadan, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Management

Walden University

February 2017

# Dedication

I dedicate this dissertation to God for giving me the strength, knowledge, and inspiration to start and complete the study. I also dedicate this dissertation to my parents, Oladapo and Adenihun Ayoola; my brother, Olaleye; and my sisters, Olakemi, Abiola, and Olabisi, without whom I would not be the man I am today. Finally, I dedicate this dissertation to my wife, Chinyere; my son, Olaleye; and my daughter, Oyindamola, who unconditionally give their love to me. I can wish for nothing better.

# Acknowledgments

I would like to show my appreciation to my committee members, Dr. Aridaman Jain, Dr. Thomas Butkiewicz, and Dr. Jules Klagge, for their time, advice, support, and invaluable feedback toward the completion of this dissertation. I would also like to thank every Walden faculty member from whom I have had the privilege of learning throughout my doctoral study. I would like to thank all my friends and professional colleagues who have supported me in different capacities throughout my dissertation and doctoral study. Finally, I would like to thank all of the respondents to the survey for taking the time to support this dissertation through their participation.

Table of Contents

List of Tables

List of Figures

# Chapter 1: Introduction to the Study

## Introduction

The implementation of the Nigerian Oil and Gas Industry Content Development Act of 2010 has led to the spending of at least 70% of the average annual expenditure of over $18 billion by the petroleum-producing companies on Nigerian-sourced materials and services in Nigeria (Chevron, 2012, 2014; Shell, 2013a, 2015). Average annual local spending has increased to $13 billion since 2010 in comparison to an average annual local spending of $8 billion before 2010 (ExxonMobil 2015a; Shell, 2013a, 2015). The increased annual spending on locally procured materials and services is a result of a change in government policy to boost local participation in the petroleum industry and improve the organizational performance of the petroleum-producing companies (Atsegbua, 2012; Ovadia, 2013).

The increase in local spending made it necessary to assess whether the companies have received commensurate returns on their investments through improved employee and organizational performance. In this study, I assessed the underresearched impact of the act on employees' task performance and organizational business performance in the petroleum-producing companies in Nigeria. The study's conclusions are useful to the government and managers of petroleum-producing companies in understanding the effects of the act on the employees' task performance and organizational business performance, and in understanding the pros and cons of the act in its current form. The study's outcomes have potential implications for positive social change through the

identification of better local content policy implementation strategies to improve the indigenous participation and wealth redistribution in Nigerian society.

## Background

In this study, I assessed the impact of the act on employees' task performance and organizational business performance in the Nigerian petroleum industry. The act was enacted in the year 2010 with the main objective of increasing local participation and improving wealth redistribution in the lucrative petroleum industry that is the mainstay of the Nigerian economy (Atsegbua, 2012). Prior to the enactment of the act, the Nigerian petroleum industry was heavily dependent on materials and services mostly procured from foreign companies specializing in petroleum industry technology and services. The dependence of the local oil and gas industry on externally sourced materials and services, and the resultant loss of income from the Nigerian economy to other countries, was a major concern to the government of Nigeria.

Furthermore, the Nigerian government was concerned about the lack of local capacity development in the area of technology development and provision of services to support the petroleum industry. Based on these concerns, the government established the act and set up the Nigerian Content Monitoring Board to establish the regulatory framework of the act and monitor the implementation and compliance of the petroleum-producing companies (Atsegbua, 2012). The act is expected to stimulate investments in the local technology development industry; lead to wealth redistribution to alleviate poverty among the people, especially in the local petroleum-producing communities;

improve the organizational performance of the petroleum-producing companies; and minimize the loss of income to other countries to the detriment of the Nigerian economy.

The implementation of local content development policies to encourage local participation in an industry dominated by foreign investors is not a new phenomenon, especially in the petroleum industry. Similar local content development policies were implemented in petroleum-producing nations such as Brazil, Saudi Arabia, Indonesia, Norway, and Kuwait (Atsegbua, 2012; Mendonça & de Oliveira, 2013). The implementation and subsequent success of a local content development initiative in achieving the local industry development objectives are challenging.

The challenges include the effective implementation and enforcement of local content development rules; the provision of financial support for local technology and expertise development, especially in small- and medium-scale enterprises (SMEs); and the provision of adequate infrastructures to support local industry development. In addition, local content development policy implementation has corporate social responsibility (CSR) implications on the part of the petroleum-producing companies (Renouard & Lado, 2012).

The implementation of local content development policies usually involves a radical change in the way of working within the affected industry. Any change in the status quo consequently has the potential to affect several aspects of the industry and the organizations involved in the industry. There are several perspectives from which to examine the impact of the act on the Nigerian petroleum industry. One major aspect that could be affected by the change is employees' adaptability to the new organizational way

of working, with the resultant impact on human capital development, employees' work performance, and organizational business performance (Cullen, Edwards, Casper, & Gue, 2014; Monday, 2015).

The impact of the local content policy on human capital development and business performance has been researched and documented for the services sector of the petroleum industry in Nigeria (Monday, 2015). In addition, there are research studies on ways to enhance the success of local content initiatives in the petroleum industries of developing countries similar to Nigeria (Arthur & Arthur, 2014; Mendonça & de Oliveira, 2013).

There is a shortage of research literature on the impact of the act on petroleum-producing companies' performance. Specifically, there is a need for a scholarly assessment of the relationship between employees' perception of the level of implementation of the act, employees' perception of task performance, and perceived organizational business performance in the petroleum-producing companies in Nigeria. The assessment is pertinent because of the huge spending by the petroleum-producing companies on the procurement of local materials and services and the development of local technology and expertise since the implementation of the act.

## Problem Statement

The petroleum-producing companies in Nigeria have been forced to increase their annual local spending by 63% since the act's implementation in 2010 (Atsegbua, 2012; Ovadia, 2013). The increase in spending from $8 billion in 2010 to $13 billion in 2015 was due to the regulatory requirement to patronize Nigerian-sourced materials and

services (Atsegbua, 2012; Nwapi, 2015a). The general management problem was that despite substantial spending by the petroleum-producing companies on local content development, there is limited research on the effects of the act on the companies' performance. The specific management problem was the need to determine the influence of employees' perception of the level of implementation of the act on employees' perceived task performance and perceived organizational business performance. I addressed the specific management problem by carrying out a quantitative correlational study. The general population group for the present study was staff of the petroleum-producing companies in Nigeria.

## Purpose of the Study

The purpose of this descriptive correlational study was to examine the relationship between employees' perceived level of implementation of the act, employees' perceived task performance, and perceived organizational business performance in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. The independent variable was employees' perception of the level of implementation of the act in the petroleum-producing companies. The dependent variables were employees' perceived task performance and perceived organizational business performance among the sample of petroleum-producing companies since the implementation of the act in 2010. The specific population group of the present study was full-time employees of the five major petroleum-producing companies in Nigeria. I used a quantitative research design and descriptive correlational method in the study. I used a survey for data collection. The

study results add to the body of knowledge on the effect of policy implementation in the Nigerian petroleum industry. The study outcomes have potential implications for positive social change through better policy generation and implementation to improve indigenous participation in the Nigerian petroleum industry and any other industry in Nigeria.

## Research Questions and Hypotheses

To assess the correlation between employees' perception of the level of implementation of the act, employees' perceived task performance, and employees' perception of organizational business performance in the petroleum-producing companies in Nigeria, the research questions and hypotheses raised were the following:

1. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance?

   *H*o1: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

   *H*a1: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

2. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance?

*H*o2: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

*H*a2: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

In the research study, I attempted to correlate the employees' perception of the level of implementation of the act with employees' perceived task performance and employees' perceived organizational business performance. I used a survey instrument to gather quantitative data on the subjective opinions of employees of the selected petroleum-producing companies. I treated the Likert-scale data as interval data by anchoring only the extreme ends of the choices on the 5-point Likert scale with words so that the middle choices could be viewed as equal intervals between the extremes (Norman, 2010). I carried out a correlation analysis and factor analysis of the quantitative data to determine if any correlation exists between the independent and dependent variables and to find groups of interconnected variables that reflect the dominant underlying factors linking the independent and dependent variables (Leedy & Ormrod, 2010, pp. 272-283).

## Theoretical Foundation

The theoretical foundation for this study was Bandura's (1989) social cognitive theory of human development. The theory links the influence of social interactions, personal experiences, and the environment to the behavior of an individual. Personality

type influences the individual's ways of learning while the peculiar social practices or prevailing societal norms influence the individual's cultivated behavior. Personal or cognitive, environmental, and behavioral factors influence each other in a reciprocal and bidirectional manner to determine human behavior (Bandura, 1989, p. 2).

Personal qualities, social belief systems, and skill-oriented self-development affect the behavior of an individual. Similarly, the individual's behavior has an effect on the personal, behavioral, and environmental aspects of the individual's society (Bandura, 1989, p. 2). In summary, social cognitive theory posits that personal factors influence behavioral factors and vice versa. Likewise, behavioral factors influence environmental factors and vice versa, and environmental factors influence personal factors and vice versa. These three interactions shape overall human behavior and development; one factor does not necessarily have more influence on individual behavior than any other factor in any bidirectional pair (Bandura, 1989, pp. 2-3).

The aim of this quantitative study was to examine employees' perceived task performance and perceived organizational business performance in the petroleum-producing companies in Nigeria due to the implementation of a government policy that changed the work environment. Social cognitive theory was, therefore, a suitable theoretical basis on which to ground the study and address the research questions because the theory links the effects of a change in the environment to changes in human behavior and development. In a related application, social cognitive theory was applied to evaluate employees' response to performance appraisal (Miller, Verbos, & Goswami, 2014). I

discuss social cognitive theory in detail in Chapter 2. I present the nature of this study in the next section.

## Nature of the Study

In this study, I examined the correlation between the independent variable and the dependent variables. I used a quantitative research design and descriptive correlational method in the study. The independent variable was employees' perception of the level of implementation of the act. The dependent variables were employees' perceived task performance and perceived organizational business performance. The quantitative method is consistent with the aim of examining the correlation between two or more variables through data measurement, analysis, and comparison (Leedy & Ormrod, 2010, p. 182). Quantitative research methods include experimental and nonexperimental methods (Leedy & Ormrod, 2010, p. 108). This study was nonexperimental and correlational in design.

I used a quantitative research design and descriptive correlational method to answer the research questions. I carried out correlation analysis and factor analysis of the responses to an email-conveyed online self-administered survey. The quantitative research design and descriptive correlational method were appropriate for the study because they are consistent with the aim of examining the correlation between two or more variables through data measurement, analysis, and comparison (Leedy & Ormrod, 2010, p. 182). The quantitative research design and descriptive correlational method are also appropriate for examining the influence of a change in the business environment on employee behavior based on social cognitive theory (Bandura, 1989).

Two other quantitative research designs were considered but rejected for the present study. An experimental design involves the selection of participants to partake in an experiment from which measurements are taken and interpreted from the direct observation of the responses of the participants to the experiment (Leedy & Ormrod, 2010, pp. 231-233). A quasiexperimental design is different from a traditional experimental design in the lack of randomness of assignment of participants to the treatment and control groups employed in the research. A quasiexperimental design is applicable to experiments where the random selection of participants or control groups is impractical (Leedy & Ormrod, 2010, pp. 233-237).

The experimental and quasiexperimental designs were rejected as inappropriate for the present study because of the nonexperimental nature of the research. In addition, qualitative techniques were not considered suitable for the present study because the focus of this study was on finding a correlation between three variables by measuring and analyzing hard data. The primary focus of qualitative research design is on revealing behaviors or studying experiences, not on measuring and analyzing hard data.

A survey was the data collection instrument. A researcher uses a survey to acquire data about one or more groups of people concerning their experiences, characteristics, or attitudes relative to a subject (Leedy & Ormrod, 2010, p. 187). A survey is suitable for a research study where it is difficult to directly observe and measure the required data, as was the case for this study (Balnaves & Caputi, 2001, p. 75). I disseminated the online self-administered survey through a link in an email to a sample population of 372

employees of the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni.

The advantage of using an email to distribute the link to the online self-administered survey for the study is the ease of distribution to a large population of respondents. The advantage of using an online self-administered survey is ease of participation and collation of the survey responses in an electronic form, thus eliminating the need to convert hard data to electronic form, which would be present if hard copies of the survey were distributed and filled in by hand.

The annual performance reports of Shell, ExxonMobil, Chevron, Total, and Eni that are available on the companies' official websites were additional sources of information for the study. Other sources of information for the study were the official Nigerian government reports on the act and other documents on local content development. I carried out correlational and inferential statistical analysis on the quantitative data obtained through survey responses with the use of IBM Statistical Package for the Social Sciences (SPSS) Statistics software. I discuss the research design for the study in detail in Chapter 3. I present definitions of terms used in this study in the next section.

## Definitions

The definitions of key terms and phrases used in the context of this study are as follows:

*Employee's perceived task performance:* A measure of the ability of an employee to carry out assigned tasks toward achieving organizational business objectives regarding

performance factors that include the employee's knowledge of the task, adaptability, cooperation, quality of work done, quantity of work done, problem solving, decision making, leadership, professional attitude, integrity, versatility, and motivation (Ahmed, Sultana, Paul, & Azeem, 2013; Cullen et al., 2014; Katamba & Salman, 2014).

*Local content development:* The development and use of local human and materials resources to supply goods and services to an industry (Monday, 2015; Ovadia, 2013).

*Nigerian Oil and Gas Industry Content Development Act:* The act enacted in 2010 to encourage local content development (Atsegbua, 2012).

*Perceived organizational business performance:* A measure of the degree to which an organization has performed relative to predetermined business objectives based on the employees' perception of performance metrics such as the efficiency of work processes, cost performance, competitiveness, profitability, growth, and customer satisfaction (Akça, Esen, & Özer, 2013; Bulak & Turkyilmaz, 2014; Hyoung & Byoung, 2014).

*Social cognitive theory:* A theory in which personal, behavioral, and environmental factors influence the behavior of an individual (Bandura, 1989).

## Assumptions

An assumption is a condition that a researcher holds as true with no demonstrable proof. A researcher makes an assumption or a set of assumptions to make a research study meaningful (Leedy & Ormrod, 2010, p. 6). I made the following assumptions in the context of this study:

1. The participants completely understood the objective of the study.
2. The participants were clear about the meaning of the survey questions.
3. The participants completed the online surveys honestly and accurately.

These three assumptions were necessary in the context of the study because they underscored the conditions that needed to be met to ensure the study outcomes' validity. The validity of the study results was fundamental to demonstrating the nature of the correlation between employees' perceived level of implementation of the act, perceived task performance, and perceived organizational business performance.

## Scope and Delimitations

Delimitations are the restrictions that a researcher enforces to limit the scope of a research study (Leedy & Ormrod, 2010, p. 57). The three delimitations for this study were (a) the petroleum industry in Nigeria as the study location, (b) the selection of the employees' perceived task performance and the perceived organizational business performance as the only dependent variables for analysis in the study, and (c) the sample population of 372 full-time employees of the five major petroleum-producing companies in Nigeria, specifically Shell, ExxonMobil, Chevron, Total, and Eni. These three delimitations were the boundaries of the research study.

The petroleum industry in Nigeria was the study location because the objective of the study was to examine the impact of the act in the local petroleum industry. There is a possibility that the impact of the act extends beyond the Nigerian petroleum industry, but the scope of this study was constrained by the Nigerian petroleum industry.

Another constraint on the scope of the study was the choice to limit the dependent variables under assessment to the employees' perceived task performance and perceived organizational business performance. These two variables were selected due to their impact on organizational profitability and business sustainability (Agwu & Ogiriki, 2014; Cullen et al., 2014; Monday, 2015). The impact of the act may go beyond these two areas of focus, but the selection of these two variables was a constraint on the study.

Another factor that defined the scope of the study was the limitation of the sample population to full-time employees of the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. Selecting full-time employees of the five major petroleum-producing companies for the present study excluded employees of the service companies and other industries that supply materials and personnel to the petroleum-producing companies in the Nigerian petroleum industry. The petroleum-producing companies contribute significantly to the Nigerian petroleum industry in terms of size of capital investment and yearly expenditure (Atsegbua, 2012; Chevron, 2012, 2013, 2014; ExxonMobil 2015a, 2015b; Shell, 2013a, 2013b, 2014, 2015). The significant financial contribution of the petroleum-producing companies informed the decision to constrain the sample population to full-time employees of the petroleum-producing companies.

Social cognitive theory was the theoretical basis for the present study (Bandura, 1989). The theory applies to the study because Bandura defined the relationship between a change in the environment and the way the change influences the behavior of the individual in the environment (p. 2). A similar theory proposed by Bronfenbrenner (1979)

is the ecological model of human development. Human development is an evolving relation between the environment, the individual, and the interaction brought about by the individual's perception of the environment (Bronfenbrenner, 1979, p. 3). Bronfenbrenner's theory is not applicable to the present study because the theory is more relevant to the development of a child in the context of specific environmental influences. Bronfenbrenner's theory is not applicable to an extensive study of human behavior in a wider social-economic context, as was the case in the present study.

Another theory that is similar to social cognitive theory is the operational theory of intelligence (Piaget, 1950). Intellectual operations, the results of the interactions of the individual with the environment, create real actions in human beings. These real actions translate to human and societal development (Piaget, 1950, p. 18). The operational theory of intelligence is not applicable to the present study because the theory is more relevant to the examination of the development of intelligence in human beings. The operational theory of intelligence is not applicable to an extensive study of human behavior in a wider social-economic context as was the case in the present study.

The highlighted constraints limit the applicability of the study outcomes to the petroleum-producing companies in the Nigerian petroleum industry. The possibility exists that the study outcomes apply to the service companies and other industries in which local content development policies are in place. I advise the reader to exercise caution in applying the study outcomes, conclusions, and recommendations to other industries.

## Limitations

The limitations to a study are the factors that constrain the study regarding research design, methodology, validity, and the definition of variables (Bernard, 2013). The limitations that arose from the execution of the present study regarding the generalizability, validity, and reliability of the research design, research methodology, and the study outcomes were the following:

1. The selection of the Nigerian petroleum industry as the study location.
2. The use of a convenient sample population of full-time employees of petroleum-producing companies in Nigeria.
3. The selection of only two dependent variables, employees' perceived task performance and perceived organizational business performance, for assessment of the impact of the act in the Nigerian petroleum industry.
4. The choice of an email-conveyed online self-administered survey as the data collection instrument.

I addressed the described limitations and biases in several ways. The study location was a consequence of the study objective. The general population for the study was full-time employees of the petroleum-producing companies in Nigeria; therefore, the study location was a natural and unavoidable limitation of the study. Consequently, the generalizability of the study outcomes is limited to the Nigerian petroleum industry. I enhanced the external validity of my study by using a real-life setting of the location and the population that I studied (Balnaves & Caputi, 2001, p. 89; Leedy & Ormrod, 2010, p. 99).

Due to the objective of the study, full-time employees of the petroleum-producing companies in Nigeria were selected as a convenient sample population for the study. The sample population was representative of the Nigerian petroleum industry because the petroleum-producing companies have the most employees and are the major financial contributors in the Nigerian petroleum industry regarding their significant level of capital investment and annual spending (Atsegbua, 2012; Chevron, 2012, 2013, 2014; ExxonMobil 2015a, 2015b; Shell, 2013a, 2013b, 2014, 2015). I enhanced the external validity of my study with the use of a representative sample size of 372 full-time employees of the petroleum-producing companies (Leedy & Ormrod, 2010, p. 100).

The choice to assess the impact of the act on only two dependent variables, employees' perceived task performance and perceived organizational business performance, was made to limit the study to a manageable scope. In addition, the choice of the two variables was representative of two of the most important factors that affect the success and sustainability of an organization (Agwu & Ogiriki, 2014; Cullen et al., 2014; Monday, 2015). Selecting more dependent variables for analysis would increase the complexity of the study and might complicate the interpretation of results. The impact of the act in the Nigerian petroleum industry could exceed the two dependent variables of the present study.

The choice of quantitative research design and survey instrument methodology made the analysis to find a correlation between the independent and dependent variables easier. The selected methodology excluded the possibility of capturing the contextual responses and facial expressions that could otherwise be captured through face-to-face

interviews (Leedy & Ormrod, 2010, p. 188). I ensured that the survey questions were clear and easy to understand to encourage open, complete, and honest answers from the participants, thus mitigating the limitation and ensuring the replicability of the research study in different contexts. This also ensured the internal validity of my study. I ensured the construct validity by testing the survey instrument in a pilot study that confirmed the adequacy of the survey instrument for use in the main study (Balnaves & Caputi, 2001, p. 89; Leedy & Ormrod, 2010, p. 92).

In addition, the completion of online self-administered survey could be affected by time constraints and categorized questions that forced participants to choose from a limited range of responses. I designed a survey with a reasonable completion time of 20 minutes and stated the required time to complete the survey in the participant consent form prior to the start of the survey, thus mitigating the limitation. I avoided the use of categorized questions by giving the respondents a wide range of possible responses to each question, including the options not to answer or to opt out of the survey (Leedy & Ormrod, 2010, p. 215).

## Significance of the Study

The present study is distinctive because it focused on an underresearched aspect of the petroleum industry in Nigeria that has significant performance and financial implications for Nigerian government officials and managers of the petroleum-producing companies in Nigeria. The study results contribute to the understanding of the applicability of social cognitive theory to the workplace in the Nigerian petroleum industry (Bandura, 1989). The outcomes of this study provide valuable insight into the

effects of the act on employees' perceived task performance and perceived organizational business performance. The outcomes also provide a basis for designing policies and implementation processes to boost the chances of achieving the objectives of the act.

The study outcomes fill the gap in knowledge on the impact of the act on employees' perceived task performance and perceived organizational business performance in the Nigerian petroleum industry. Finally, the study results have potential implications for positive social change through the identification of better local content policy implementation strategies to improve indigenous participation and wealth redistribution in Nigerian society. In the next subsections, I present in detail the significance of the present study to theory, practice, and positive social change.

**Significance to Theory**

The contributions of the study have significance for the advancement of the body of knowledge in the field of human behavior as a response to social and environmental factors. In this study, I examined the change in the performance of the employees in a business environment because of a change in policy. I carried out a factor analysis of the data from the survey responses to identify groups of interrelated variables that reflect the most important factors determining the impact of the act on employees' perceived task performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010). I used the factor analysis to demonstrate the applicability of social cognitive theory to the present study.

The outcomes of the study also have significance for the advancement of the body of knowledge in the fields of management, especially in the aspects of individual and organizational performance management and performance improvement. In addition, the

study outcomes have significance for the body of knowledge on business management for global organizations within the local context of Nigeria. Specifically, the study outcomes address the general management problem of the paucity of research on the effects of the act on employee and organizational performance in Nigeria. The study outcomes also address the specific management problem of determining the influence of the act on employees' task performance and perceived organizational business performance in the petroleum-producing companies.

**Significance to Practice**

The outcomes of the study may improve the understanding of both Nigerian government officials in charge of regulating the petroleum industry and managers of petroleum-producing companies in Nigeria on the impact of the act in the petroleum industry. Specifically, the outcomes of the study could aid Nigerian government officials and managers of petroleum-producing companies in understanding the effects of employees' perceived level of implementation of the act on employees' perceived task performance, and perceived organizational business performance since the year of implementation in 2010 (Atsegbua, 2012).

I carried out a factor analysis of the data from the survey responses to find the underlying factors that the act affected the most in the employee's perceived task performance and perceived organizational business performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010). The outcomes of the study provided a means of quantifying the impact of the act in the petroleum industry, which is a major-revenue generating industry for the government and private investors in Nigeria. The outcomes of the study

could aid Nigerian government officials in the process of identifying areas for improvement in local content policy enactment and implementation.

**Significance to Social Change**

The study outcomes have potential implications for positive social change through the identification of better local content policy design and implementation strategies to improve indigenous participation and wealth redistribution in Nigerian society. I carried out a factor analysis of the data from the survey responses to identify the most important factors that underpinned the impact of the act on employees' perceived task performance and perceived organizational business performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010). Finding potential areas of improvement in the drafting and implementation of the act through factor analysis of the impact of the act on the major workforce and organizations in the Nigerian petroleum industry could lead to improvements in employee work processes and organizational business performance.

Improvements in employee work processes and organizational business performance could, in turn, stimulate further business interactions between the petroleum-producing companies and indigenous companies that provide technology, labor, materials, and services to the petroleum-producing companies. Finally, the generation of more business opportunities could improve the economic and social conditions of the people, especially the host communities of the petroleum-producing companies, through the creation of jobs and the advancement of local technological capacity development.

## Summary and Transition

Since the implementation of the act in 2010, the petroleum-producing companies in Nigeria have reported significant increases in their annual local expenditure (Chevron, 2012, 2014; ExxonMobil 2015a; Shell, 2013a, 2015). The increase in expenditure has been due to the requirements of the act concerning the mandatory use of local materials and services to improve organizational performance, and the development of local technological capacity (Atsegbua, 2012; Nwapi, 2015a; Ovadia, 2013). The increase in local spending makes it necessary to evaluate whether the companies received any benefits in return in the form of improved employee and organizational performance. In this chapter, I have introduced the study, explained the background of the study, framed the problem statement, described the purpose of the study, and developed the research questions and hypotheses.

The general management problem was that despite substantial spending by the petroleum-producing companies on local content development, there is limited research on the effects of the act on the companies' performance. The specific management problem was the need to determine the influence of the act on the employees' task performance and perceived organizational business performance in the petroleum-producing companies. The purpose of this quantitative correlational study was to examine the relationship between employees' perceived level of implementation of the act, employees' perceived task performance, and perceived organizational business performance in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni.

I developed a theoretical foundation for the study based on social cognitive theory about the behavioral and social response of an individual to changes in the environment (Bandura, 1989). I adopted a quantitative research design and descriptive correlational method for the study. I also developed a basis for adopting the quantitative research approach for the study and using a survey instrument to gather the required data for correlational and inferential statistical analysis.

The independent variable was employees' perception of the level of implementation of the act. The dependent variables were employees' perceived task performance and perceived organizational business performance. Finally, I defined the terms and stated the assumptions made in the study; described the scope, delimitations, and limitations of the study; and highlighted the significance of the study in relation to theory, practice, and positive social change for the Nigerian people.

In Chapter 2, I carry out a review and synthesis of the literature related to the study to establish the relevance of the research problem, the selected research methodology, and the significance of the study. I present, summarize, critically compare, contrast, and synthesize the relevant research as captured in the scholarly literature. I also demonstrate and articulate the gap in the literature pertaining to the impact of the act on employee and organizational performance. I review literature from fields of research related to the scope of the study and examine diverse contexts within the related fields. I also review the literature related to the act, local content development policies, employees' perceived performance, perceived organizational performance, and performance management.

# Chapter 2: Literature Review

## Introduction

The petroleum-producing companies in Nigeria have been forced to increase their average annual local spending by a significant 63% since the implementation of the act in 2010 (Atsegbua, 2012; Ovadia, 2013). The increase in spending from $8 billion in 2010 to $13 billion in 2015 was due to the regulatory requirement to increase spending on Nigerian-sourced materials and services (Atsegbua, 2012; Nwapi, 2015a). The general management problem was that despite the substantial spending by the petroleum-producing companies on local content development, there is limited research on the effects of the act on the companies' performance. The specific management problem was the need to determine the influence of the act on employees' task performance and perceived organizational business performance in the petroleum-producing companies. I addressed the specific management problem by carrying out a quantitative correlational study. The general population group of the study was staff of the petroleum-producing companies in Nigeria.

The purpose of this quantitative correlational study was to examine the relationship between employees' perceived level of implementation of the act, employees' perceived task performance, and perceived organizational business performance in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. The specific population group of the study was full-time employees of the five major petroleum-producing companies in Nigeria. The objective of the literature review was to analyze and synthesize seminal and

contemporary literature relevant to the act, employees' perceived task performance, and perceived organizational business performance.

I present, summarize, critically compare, contrast, and synthesize the relevant research as captured in the scholarly literature. I also demonstrate and articulate the gap in the literature pertaining to the impact of the act on employee and organizational performance. In addition, I review and analyze relevant literature that relates to the theoretical foundation for the research study and the application of the quantitative survey research method, correlation analysis, and factor analysis.

In Chapter 2, I describe the search strategy employed in the literature review, including the key words and phrases searched for, the search engines used and databases accessed, and the timeline of the searched items used in the literature review. I examine the social cognitive theory proposed by Bandura (1989), which served as the theoretical foundation for the study. I also review, analyze, and synthesize relevant literature. I conclude Chapter 2 with a summary and transition to Chapter 3.

## Literature Search Strategy

The literature I searched and compiled for review included peer-reviewed scholarly journal articles, books, government documents, reports from professional organizations, and corporate documents from the petroleum-producing companies in Nigeria. The books used in the study were searched, selected, and obtained as hard copies based on their relevance to social cognitive theory (Bandura, 1989) and the quantitative survey research methodology employed in the study. Government documents were obtained from the websites of the applicable government agencies, while reports and

corporate documents were obtained from the websites of the professional organizations and the petroleum-producing companies in Nigeria, which included subsidiary companies of Shell, Chevron, ExxonMobil, Total, and Eni.

I selected peer-reviewed scholarly journal articles based on their relevance to the study. I obtained articles from several sources and databases. The year of publication of the selected articles was between 2010 and 2016. The search engine used was Google Scholar. The business and management databases searched at the Walden University Online Library were ABI/Inform Complete, Business Source Complete, ProQuest Central, SAGE Premier, and Dissertations & Theses at Walden University. The search terms used in selecting peer-reviewed scholarly journal articles included *social cognitive theory, employee performance, perceived task performance, performance assessment, performance improvement, perceived organizational business performance, organizational performance, change management, Cronbach's alpha, correlation analysis, factor analysis, local content, Nigerian content, technology development, The Nigerian Oil and Gas Industry Content Development Act*, and *quantitative survey research*.

The scope of the literature review in terms of years searched was from 1979 to 2016. The years of publication for the seminal literature used in the theoretical foundation spanned from 1979 to 1989. The years of publication for the books reviewed on quantitative and qualitative research methodology were from 2001 to 2014. The professional, corporate, and government documents used covered a period ranging from 2011 to 2015, while the years of publication for the peer-reviewed scholarly journal

articles selected for the literature review were from 2010 to 2016. Table 1 shows the categories of type of literature searched based on key words, databases and other sources, and number of documents.

Table 1

*Categories of Type of Literature Searched Based on Key Words, Databases and Other Sources, and Number of Documents*

| Category | Peer-reviewed journal articles | Books | Corporate and government documents |
|---|---|---|---|
| Key words | Employee performance<br>Perceived task performance<br>Cronbach's alpha<br>Performance assessment<br>Performance improvement<br>Organizational performance<br>Perceived organizational business performance<br>Change management<br>Correlation analysis<br>Factor analysis<br>Local content<br>Nigerian content<br>Technology development | Social cognitive theory<br>Quantitative survey research<br>Case studies | The Nigerian Oil and Gas Industry Content Development Act<br>Organizational performance<br>Local content |
| Databases and other sources | ABI/INFORM Complete<br>Business Source Complete<br>ProQuest Central<br>SAGE Premier<br>Dissertations & Theses at Walden University | Google Scholar<br>ABI/INFORM Complete<br>Business Source Complete | Official organizational websites<br>Google Scholar |
| Number of documents | 114 | 9 | 14 |

## Theoretical Foundation

### Introduction

The theoretical foundation for this study was social cognitive theory (Bandura, 1989). An individual's societal interactions, experiences, societal practices, and environment influence the individual's behavior (Bandura, 1989, p. 2). Cognitive, environmental, and behavioral factors influence each other in a reciprocal and bidirectional manner to determine human behavior (Bandura, 1989, p. 2). Figure 1 shows the triadic reciprocal determinism of human behavior based on social cognitive theory.

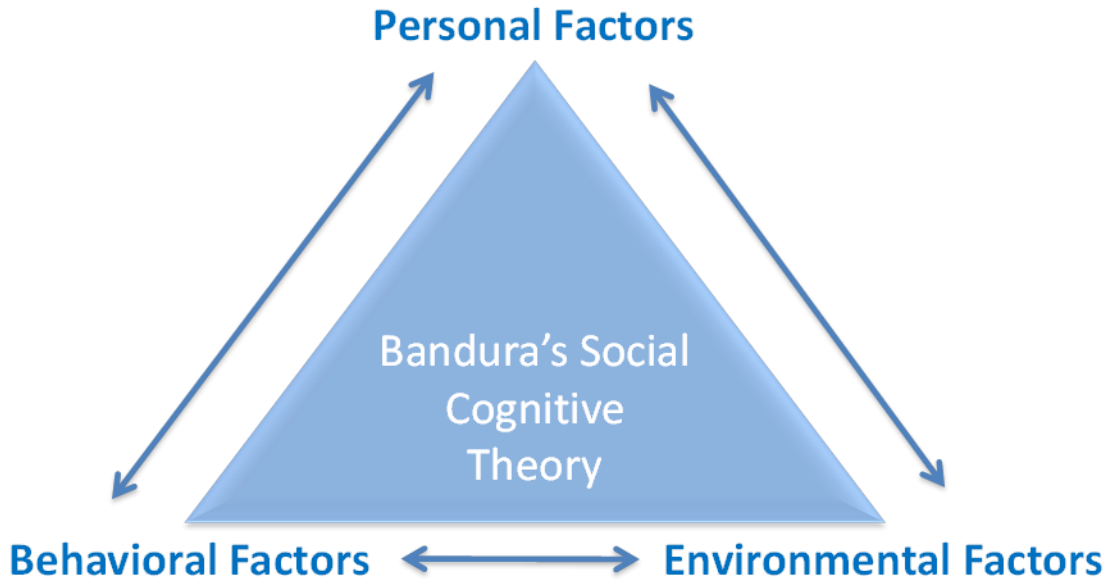



*Figure 1*. Bandura's social cognitive theory. Adapted from "Social Cognitive Theory," by A. Bandura, 1989, in R. Vasta (Ed.), *Annals of Child Development: Six Theories of Child Development* (p. 3), Greenwich, CT: JAI Press. Copyright 1989 by JAI Press.

### Social Cognitive Theory

Personal qualities, social norms, and the process of competence development affect the behavior of an individual. Similarly, an individual's behavior has an effect on

the cognitive or personal (P), behavioral (B), and environmental (E) aspects of the social system to which the individual belongs (Bandura, 1989, p. 2). To summarize, the cognitive or personal factors influence the behavioral factors and vice versa (P-B), the behavioral factors influence the environmental factors and vice versa (B-E), and the environmental factors influence the cognitive or personal factors and vice versa (E-P). These bidirectional pairs of interactions operate in a triad that influences overall human behavior and development, although the level and timing of the influence of any one factor are not necessarily the same as those of the other factors (Bandura, 1989, pp. 2-3).

In the P-B bidirectional pair of influence, the individual's reflections, belief systems, feelings, aspirations, and expectations influence his or her behavior. Similarly, the individual's thought patterns and emotional responses influence the outcomes of an individual's actions (Bandura, 1989, p. 3). In the E-P bidirectional pair of influence, the influences of the social environment where the individual belongs modify the individual's expectations, belief systems, emotions, and cognitive abilities through modeling, training, and other social stimulants (Bandura, 1989, pp. 3-4).

In the B-E bidirectional pair of influence, the individual's behavior modifies the conditions of the social environment. Consequently, the social conditions created by the modification change the behavior of the individual and others within the environment in the course of their daily activities. The immediate environment is a system that can modify behavior by itself only if the mobility of the people within the environment is restricted (Bandura, 1989, p. 4).

The bidirectional nature of the influence between behavior and the environment makes people simultaneously products and inventors of their social environment. In the creation of situations and activities based on individual capabilities and personal preferences, people collectively influence their environment by creating new environments or preferentially selecting specific environments. Human behavioral development is related to the effects of activated environmental influences. The consequently activated environmental influences determine the aspects of human behavior that are further developed or cultivated (Bandura, 1989, pp. 4-6).

**Application of Social Cognitive Theory**

Several researchers have applied social cognitive theory in research studies similar to the present study. For example, Miller et al. (2014) conducted a study to evaluate employees' response to performance appraisal processes as situated cognitions and to propose intervention techniques to improve employee satisfaction with performance appraisal processes. A finding of the study was that the availability of adequate job resources for employees to carry out their tasks is essential to employees perceiving the appraisal process positively and consequently holding a fair performance appraisal process (Miller et al., 2014).

Another example was a study examining the impact of challenging on-the-job experiences on employee learning and development. By examining subordinate-supervisor dyads in several service sector organizations, the researchers concluded that there is evidence in support of the benefits of challenging on-the-job experiences for employee learning and development. The researchers also concluded that perceived

challenging on-the-job experiences are directly related to improvements in employee task performance and are indirectly related to improvements in task-specific personal effectiveness (Aryee & Chu, 2012).

Another example of the application of social cognitive theory was an examination of the effectiveness of a social cognitive theory-based intervention to increase physical activity among working mothers. The results showed short-term increases in physical activity because of the behavior-modifying qualities of the social cognitive theory-based intervention. The increases in physical activity were mediated by increases in self-regulation and self-efficacy in the sample population of working mothers (Mailey & McAuley, 2014).

Another application of social cognitive theory occurred in a study to develop effective methods for teaching piano concertos to young students. Piano instructors applied social cognitive theory to provide models and demonstrations of piano music and to enhance visual memories in students using sound effects, patterns, structure, imagery, and stories. Piano instructors also used social cognitive theory to improve concerto practices and to support and motivate the young students through repetitive practices until they achieved mastery in playing the piano concerto (Briscoe, 2014).

The results of a study to investigate if social cognitive theory-framed interventions are effective for improving condom use and reducing sexually transmitted diseases showed that the theory predicted the relationship between condom use behavior and self-efficacy after the administration of social cognitive theory-framed interventions (Snead et al., 2014). Another example was the application of social cognitive theory to

examine the relationship between the consumer's intentions to purchase cloud computing services and the consumer's perceived ease of use, perceived usefulness, and online privacy concerns related to cloud computing technology. A finding of the study was that the consumer's intentions to purchase cloud computing services are related to the consumer's cognitive perception of the ease of use, the usefulness, and the security of cloud computing technology (Ratten, 2015).

Another application of social cognitive theory was an assessment of the effects of cultural intelligence on team knowledge sharing from the perspective of social cognition. The conclusion of the study was that metacognitive, cognitive, and motivational cultural intelligence across several cultural and multinational contexts directly influences knowledge sharing (Chen & Lin, 2013). Similarly, the theory was applied to investigate the effects of fundamental and supplemental interactions within the environment of virtual communities on users' knowledge sharing. A finding of the study was that fundamental interaction, such as communication, discussion, and collaboration, directly affects users' knowledge acquisition and contribution, whereas supplemental interaction, such as shared private information on user ability and needs, negatively affects users' knowledge acquisition and positively affects users' knowledge contribution (Zhou, Zuo, Yu, & Chai, 2014).

Another example of the application of social cognitive theory was an investigation into the change in physical activity of adolescent girls from low-income communities in response to an effort to prevent obesity. An outcome of the study was that self-efficacy was associated with physical activity over a 12-month period in the

adolescent girls in line with social cognitive theory (Dewar et al., 2013). Another application of social cognitive theory with Ajzen's theory of planned behavior was an examination of the moderating role of self-identity in influencing the intentions of business students toward taking elective ethics courses. A finding of the study was that although the theory of planned behavior was a better predictor of behavioral intentions in the students, social cognitive theory successfully predicted the relationship between the outcome expectancy and behavioral intentions (Cheng & Chu, 2014).

Another example involved examining the antecedents of individual corporate accountants' perceived personal fit with their organization's ethical climate and empirically testing how the antecedents affected organizational attitudes. The results indicated that higher internal levels of locus of control, greater numbers of prior job changes, and higher perceptions of an increasingly better fit with the firm's ethical climate were the three significant antecedents relating to ethical climate fit. The results also indicated that higher levels of perceived job satisfaction and organizational commitment related to higher levels of perceived fit with the firm's ethical climate (Domino, Wingreen, & Blanton, 2015).

A final example of the application of social cognitive theory was a study to test whether personal resources predict self-rated job performance through job resources and work engagement. The study outcomes indicated that personal resources, such as self-efficacy, mental aptitudes, and emotional capabilities, positively related to job resources, defined as job control and supervisor social support, and consequently led to improved work engagement and self-rated performance (Lorente, Salanova, Martinez, & Vera,

2014). These research examples indicated a wide range of applicability of social cognitive theory to examining the effects of diverse environmental factors on human behavior in various social and professional contexts.

**Social Cognitive Theory's Applicability to the Present Study**

Social cognitive theory applied to the present study because an aspect of the theory explained the impact of a change in the environment on the behavior of the individuals operating in that environment. The examination of the effect of an environmental change on behavior was the aim of the present study that was to examine the perceived task performance of employees and the perceived organizational business performance of the petroleum-producing companies since the implementation of the act in 2010. The selected theory applied to the present study from the perspective of examining human behavior as a response to a change in social and environmental factors.

The specific change was a major change in the way of working or the business environment due to the implemented act. The impact of this change on employee's perceived task performance and perceived organizational business performance was an examination of an aspect of social cognitive theory. I treated the Likert scale data as interval data by anchoring only the extreme ends of the choices on the 5-point Likert scale with words so that the middle choices could be viewed as equal intervals between the extremes (Norman, 2010). I carried out a factor analysis of the data from the survey responses to identify clusters of highly connected variables that reflect the most important factors determining the impact of the act on employee's perceived task performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010).

I used the factor analysis to establish the applicability of social cognitive theory to the present study. The research questions relate to social cognitive theory regarding an examination of the impact of a change in environmental factors, in this case, the perceived level of implementation of the act, on individual behavior, in this case, changes in employees' perceived task performance and perceived organizational business performance. I carried out a review and synthesis of current literature in the next section to demonstrate what is known and to identify the gap in the literature.

## Literature Review

### Global Petroleum Industry Local Content Development Initiative History

**Introduction.** The development and implementation of local content development initiatives are not new. Local content development policies are usually implemented to encourage local participation in any industry predominantly run by foreign stakeholders. The same is true for the petroleum industry in Nigeria that is dominated by foreign petroleum-producing and services companies. To improve indigenous investments and participation in any such industry, governments usually impose a strict local content development policy. Local content development policies have been implemented in petroleum-producing nations such as Brazil, Ghana, Saudi Arabia, Indonesia, Norway, and Kuwait (Arthur & Arthur, 2014; Atsegbua, 2012; Mendonça & de Oliveira, 2013; Ryggvik, 2015), among others.

**Historical development and success of local content initiatives.** Various factors influence the development and level of success of local content initiatives in diverse uses across different countries in the global petroleum industry. The emergence of Norway as

a global force in petroleum production is due largely to the successful implementation of a local content development policy (Ryggvik, 2015). The people of Norway developed the capability to create highly effective and profitable petroleum-producing companies and an internationally competitive petroleum services industry. The capability was developed in two distinct phases of Norway's petroleum industry development. The two development phases had the greatest impact on the rise to prominence of the country as a major global oil player. The phases are the protectionist phase and the liberalization phase (Ryggvik, 2015).

In the protectionist phase that commenced around 1972 and ended around 1986, there was a strong focus on local content development as a means of fostering the skill and technical capability required of Norwegian companies. At the same time, there was government support for the development of more effective and efficient Norwegian oil companies and the national oil services industry (Ryggvik, 2015). In the phase of liberalization or openness of the economy to foreign investment that started around 1986, the Government of Norway shifted to a more market-driven oil policy. The market driven oil policy encouraged international investors to participate in the country's booming petroleum industry, and that allowed the Norwegian companies to leverage on increased funding to further develop their capabilities to compete in the global oil production and services industry (Ryggvik, 2015).

The Norwegian local content development innovation system was successful because it was based on a decentralized industrialization process with a strong local participation, especially in farming and fishing. The Norwegian local content

development initiative was further supported by adequate infrastructural development, especially electricity generation. The petroleum industry was developed and integrated with small local firms focused on research and development as a means of boosting local participation and technological capacity development (Mendonça & de Oliveira, 2013).

In the 2000s, the Government of Brazil embarked on the development of a framework for a local content policy designed for implementation in the Brazilian petroleum industry from the context of a system of innovation. The Government of Brazil used the Norwegian local content policy as a reference to compare and contrast the Brazilian local content policy. Several stakeholders were important in the successful implementation of the local content development initiative. The stakeholders include the national oil company, the subsidiaries of the national oil company, the legal sector, the regulatory agencies, and the government (Mendonça & de Oliveira, 2013).

The Brazilian local content development model was inadequate as a means of developing local capacity due to the separation of the local firms from the technological competencies of the national oil company. The separation was due to the subcontracting process that prevented any direct interaction between the local companies vying for contracts and the national oil company. The absence of a relationship between the major stakeholder, the national oil company, and suppliers, universities, and research centers also hampered the success of the Brazilian local content development system of innovation (Mendonça & de Oliveira, 2013).

In Africa, the Government of Nigeria implemented the act in 2010 to boost local participation in the oil and gas industry. The major stakeholders involved in the

implementation of the act were multinational companies, indigenous companies, educational and research institutions, the Nigerian legal system, financial institutions, regulatory agencies, and the government. The effective management of the roles and interrelationships of the stakeholders was crucial to achieving the country's local content development objectives, especially regarding the assurance of clear legal and industrial regulatory guidelines, and the provision of adequate funding to support the business of indigenous firms. It was also important to ensure knowledge transfer from multinational companies to indigenous firms to support the development of the local technical capacity for the petroleum industry (Arthur & Arthur, 2014; Monday, 2015).

Also in Africa, the Government of Ghana passed a local content law in 2013. The aim of the law was to encourage and improve the development of internal and external connections between Ghana's petroleum industry and the broader national economy. Ghana's Ministry of Energy set up a project to enhance the capacity of indigenous Ghanaian firms and promote their participation in the petroleum industry. The project was funded with the assistance of the international oil companies (IOCs) who do business in the Ghanaian petroleum industry (Arthur & Arthur, 2014).

The project was used to support the participation of indigenous enterprises in the local petroleum industry through the setting of standards and requirements for participation, and the provision of information, training, and consultancy service. A lowlight in the local content policy implementation in Ghana was that very few well-established medium and large-scale local firms were able to take advantage of the opportunities available through the project to do business in the petroleum industry. The

low participation of the medium and large-scale local firms was due to the inability of the majority of the relatively new and small local companies to meet the administrative and financial requirements for participation in the local petroleum industry (Arthur & Arthur, 2014).

International organizations have provided guidelines on improving the success of local content policy development and implementation in the petroleum industry. The International Petroleum Industry Environmental Conservation Association (IPIECA), a global oil and gas industry association for environmental and social issues formed in 1974, set up a local content task force with the purpose of updating the related guidelines on local content development in the petroleum industry. In the organization's Local Content Strategy document, IPIECA provided guidance on effectively developing and implementing local content policies based on the examination of some local content case studies in Norway, Brazil, Yemen, Russia, Trinidad & Tobago, Angola, and Nigeria (IPIECA, 2011).

IPIECA provided recommendations for developing countries in developing and implementing local content strategies. IPIECA's task force on local content development observed that local content strategy is not a quick fix or a route to achieving short-term benefits but is rather a long-term improvement program that can be achieved only through the application of comprehensive planning, coordination, resources and diligence. The task force recommended that for a local content policy to be successful, the implementation process must go beyond merely meeting regulatory and reporting requirements but rather strategically set realistic human and industrial development

targets that are within the existing capacity of the local industry. IPIECA also recommended the development of policies that will contribute to sustainable benefits in the long term for the host country. The task force emphasized the primary objective of an effective local content strategy as the building up of the technical capabilities of the local workforce and the development of supplier capacity of the local industrial sector (IPIECA, 2011).

Similarly, the International Gas Union (IGU) issued a report on local content strategy development in the petroleum industry. The IGU was founded in 1931 to promote the use of gas as an important global sustainable energy option and to promote the political, technical, and economic development of the gas extraction and processing industry (IGU, 2015). The IGU's 2012-2105 Triennium Work Reports contained the recommendations on how to maximize the benefits of local content strategies to host communities of petroleum-producing companies. One major recommendation was that the oil-producing nations should intensify effort on the creation of collaborative relationships between the petroleum industry and the domestic economy. Another recommendation was that the oil producing nations should develop local content policies with a focus on reversing the problems of socio-economic underdevelopment, corrupt governments, and civil conflicts that are prevalent in the developing nations (IGU, 2015).

It is beneficial for petroleum-producing companies to build long-lasting and sustainable relationships with the host countries to safeguard their investments in the long term, as friendly, mutually beneficial relationships would mitigate the risk of unrest and discontent within the host communities against the petroleum-producing companies

(IGU, 2015). In addition, the success of local content development policies depends on the context of the location of implementation, with factors such as the level of infrastructural development and the quality of education or skilled labor vital to the success of local content development initiatives. Other factors such as political stability and the potency of legal and regulatory frameworks are also vital to sustaining the gains of local content development initiatives (IGU, 2015).

The development of a collaborative approach between the government and the petroleum-producing companies will improve the chances of success of local content initiatives. The government and oil-producing companies should collaborate to ensure the setting of realistic local content development targets to be achieved within a certain timeline based on a detailed assessment of current local capacity and the local content potential of the host country. The collaborative approach will provide a more accurate assessment of existing capacities and needs of the petroleum-producing companies as well as develop the most effective way to establish connections between local firms and the petroleum-producing companies to meet the identified needs through local sources (IGU, 2015).

The government of host countries should take a long-term view of implementing local content development initiatives by setting a series of realizable short-term targets that would gradually build up local content without hampering the competitiveness of the local industry on the global stage. In addition, the government must have a plan to know when to phase out local content development and expose the local firms to global competition as a way to prepare them to seek and execute contracts in other markets

outside of the host country. The government of host countries should create an enabling environment for local content development to grow in terms of providing effective regulations and financial support for local technical capacity development. The government should also build up local businesses participating in the local petroleum industry, and improve social infrastructures and energy generation to meet the demands of the local petroleum services industry (IGU, 2015).

**Summary.** The Norwegian sector of the North Sea recorded the first success story of the application of a local content development policy to improve indigenous participation in the petroleum industry (IGU, 2015; Ryggvik, 2015). Several other countries have also implemented local content development initiatives to varying degrees of success while facing various challenges depending on the peculiarities of each country's petroleum industry setup (Arthur & Arthur, 2014; IPIECA, 2011; Mendonça & de Oliveira, 2013). The major factors critical to the success of local content development initiatives are comprehensive and contextual planning, stakeholders' collaboration, adequate infrastructural development, effective legal and regulatory frameworks, availability of local skilled manpower, and adequate financial support for indigenous firms (IGU, 2015; IPIECA, 2011; Mendonça & de Oliveira, 2013).

## The Nigerian Oil and Gas Industry Content Development Act Implementation

**Introduction.** Nigeria is one of the world's top 10 biggest oil-exporting countries, and the local oil industry contributes 80% and 95% of Nigeria's revenues and foreign exchange, respectively (Atsegbua, 2012). The oil and gas deposit in the oil-rich Niger Delta region of the country has been the mainstay of the Nigerian economy and a major

source of crude oil to meet part of the global demand for energy over several decades. The Nigerian petroleum industry is also a means of creating jobs for the people (Abdulkabir, Sidique, Rahman, & Hook, 2015).

Consequently, it is important that the Nigerian government seeks greater control of the country's most valuable natural resource as well as seeks to redistribute the wealth accruing from the exploitation of oil and gas reserves in the country through increased indigenous participation in the lucrative local petroleum industry. The quest for greater control resulted in the enactment of the act in 2010 (Nwapi, 2015a; Ovadia, 2013). A review of the literature on the development, implementation framework, and critical success factors of the act in the Nigerian oil and gas industry follows.

**The challenges of implementing the act.** The enactment of the act in 2010 was a significant development in the efforts of the Nigerian government to improve local control of the petroleum industry and to add value to the local economy (Nwokoma, 2015). Another significant development was the concurrent establishment of the Nigerian Content Development and Monitoring Board (NCDMB). The NCDMB has the responsibility to manage the implementation and monitoring of industry compliance with the act. The Nigerian oil and gas industry accounts for over 40% of Nigeria's annual gross domestic product. The industry is heavily reliant on the use of foreign goods and services. The low participation level of indigenous companies is the reason for the high level of importation of goods and services used in the industry (Atsegbua, 2012; Ovadia, 2013).

The act is a way to improve the indigenous participation by enforcing the use of a minimum level of locally produced goods and services. The act is also a way of promoting the training and employment of more Nigerians in the local petroleum industry, thereby boosting local technical capacity development (Oyewale, Adeyemo, & Ogunleye, 2013) and reducing the number of unemployed Nigerians (Abdulkabir et al., 2015). The act is a necessary and positive development for the Nigerian petroleum industry and could achieve the same objectives similar to Saudi Arabia, Venezuela, and Kuwait, where local content development initiatives have led to improved indigenous participation, wealth redistribution, and technical capacity development in the local petroleum industry (Atsegbua, 2012).

Despite the highlighted positives, there are factors that could derail the achievement of the objectives of the act. One such factor is corruption. Corruption is a major socio-economic problem in Nigeria (Idris & Salisu, 2016; Nwapi, 2014). There are aspects of corruption vulnerabilities inherent in the provisions of the act. The aspects include the potential for conflict of interest among the various stakeholders involved in ensuring compliance with the provisions of the act and the high likelihood of political influence either with discretionary power or with the influence wielded by the multinational petroleum-producing companies (Nwapi, 2015b). The aspects of corruption vulnerabilities intrinsic in the provisions of the act also include the lack of transparency in the contract management process of the petroleum industry, and the potential of the act to encourage the proliferation of facilitation payments to the NCDMB, thereby

potentially compromising the integrity of the monitoring body (Nwapi, 2015b; Ovadia, 2013).

Another factor that could delay the realization of the objectives of the act is the general lack of infrastructural development across Nigeria, especially at the grassroots level of the society (Kanayo, Kizito, & Udefuna, 2013). The low level of social and economic infrastructural development affected the development of several businesses and industries in Nigeria, including the manufacturing industry (Sola, Obamuyi, Adekunjo, & Ogunleye, 2013), the small and medium scale enterprises (Agwu & Emeti, 2014; Ikharehon, 2014), and the financial sector (Nkechi & Okezie, 2013). The Government of Nigeria must take resolving the persistent lack of infrastructural development across the country as an important goal.

The absence of a strong accountability culture and the ineffective enforcement of regulatory guidelines, especially on environmental protection and community development, could also diminish the benefits of implementing the act (Hassan & Kouhy, 2015). Access to funds for setting up local businesses is another factor that could affect the realization of the objectives of the act. The local petroleum industry needs to be supported by local businesses that are financially stable, innovative, employ well-trained staff and are technologically-advanced to cope with the demands of the industry (Goddy & Odivwri, 2014; Nkechi & Okezie, 2013; Oyewale et al., 2013).

Another factor that could affect the successful implementation of the act is the potential alienation of the indigenes of the oil-rich Niger Delta region from participating directly in the implementation of the act. The persistent social conflicts and agitations for

resource control in the region show that the indigenes wish to increase their participation in the local petroleum industry and to take control of the hydrocarbon resource they perceive as theirs (Ingwe, 2015; Nwapi, 2015a). The success of achieving the objectives of the act depends on the ability of the Nigerian government to adopt an all-inclusive approach in the implementation of the act to pacify the indigenes of the Niger Delta region (Nwapi, 2015a).

There are other obstacles in the way of indigenous companies in their bid to increase participation in the local petroleum industry. The major obstacles relate to three major capabilities: restricted access to funds, low technical competence, and low service delivery capacity. The recognition and effective management of the interdependencies between the major stakeholders associated with these capabilities will eliminate the barriers (Arthur & Arthur, 2014, Ovadia 2013; Renouard & Lado, 2012). Another obstacle is the lack of effective government monitoring and control of the implementation process. The historically ineffective government control in ensuring compliance with the regulations could lead to potential exploitation by the few domestic elite to further enrich themselves with proceeds from the nations' petroleum wealth to the detriment of the poor majority (Ovadia, 2013).

**Summary.** The act, enacted in 2010, was implemented with the main objective of improving the local economy of the Niger Delta region and the national economy of Nigeria through increased indigenous participation in the local petroleum industry (Atsegbua, 2012; Nwokoma, 2015). The other objectives of the act include local worker development, employment generation, technology transfer, and local industrial capacity

enhancement to support the Nigerian petroleum industry (Abdulkabir et al., 2015; Oyewale et al., 2013). The NCDMB has the responsibility of implementing the act and monitoring the companies in the petroleum industry to ensure compliance with the requirements of the act (Atsegbua, 2012). The major challenges facing the success of the act in achieving the objectives of Nigerian content development are the poor state of social and industrial infrastructures, inadequate power generation, low level of skilled manpower, weak regulatory and monitoring structures, potential for detrimental political influence, and corruption (Idris & Salisu, 2016; Kanayo et al., 2013; Nwapi, 2014; Nwapi, 2015b; Ovadia, 2013).

## Employee's Perceived Task Performance and Perceived Organizational Business Performance

**Introduction.** Several researchers studied the subjects of employee performance and organizational business performance in various organizational contexts. The researchers highlighted various criteria for evaluating employee and organizational performance (Agwu & Ogiriki, 2014; Ahmed et al., 2013; Akça et al., 2013; Ali & Zia-ur-Rehman, 2014; Bacha, 2014; Blazovich, 2013; Bulak & Turkyilmaz, 2014; Caillier, 2014; Campbell, 2015; Chinomona, 2013; Cullen et al., 2014; Dar, Bashir, Ghazanfar, & Abrar, 2014; Devonish, 2013; Hyoung & Byoung, 2014; Ismail, 2015; Katamba & Salman, 2014; Laihonen, Jääskeläinen, & Pekkola, 2014; Maley, 2014; Mensah, 2015; Mishra & Sarkar, 2013; Mohammad & Alaskari, 2014; Mousavi, Hosseini, & Hassanpour, 2015; Nafei, 2013; Öcal & Koçak, 2015; Oumar & Mbonigaba, 2014; Petros, 2014; Piza et al., 2016; Sahin & Uslu, 2014; Sanjeev & Singh, 2014; Suliman &

Harethi, 2013; Vela-Jiménez, Martínez-Sánchez, Pérez-Pérez, & Abella-Garcés, 2014; Young, Kwon, & Kim, 2013).

**Criteria for evaluating employee performance.** Several researchers evaluated employee performance in the contexts of working alone and working in a team in various industries and professions (Ahmed et al., 2013; Ali & Zia-ur-Rehman, 2014; Bacha, 2014; Blazovich, 2013; Caillier, 2014; Cullen et al., 2014; Devonish, 2013; Katamba & Salman, 2014; Mishra & Sarkar, 2013; Nafei, 2013; Suliman & Harethi, 2013; Vidat, 2015; Young et al., 2013). The most important criteria in determining employee performance relate to the employee's motivation, attitude, communication, and positive workplace relationships (Katamba & Salman, 2014; Sahin & Uslu, 2014; Sanjeev & Singh, 2014).

The criteria in determining employee performance include the employee's knowledge of the job, work quality and quantity, coaching and mentoring new colleagues, problem-solving and decision-making skills, teamwork and collaboration skills, leadership skills, communication skills, and the ability to take initiative and generate innovative solutions (Ahmed et al., 2013; Bacha, 2014; Caillier, 2014; Campbell, 2015; Farahani & Yarahmadi, 2015; Katamba & Salman, 2014; Mensah, 2015; Petros, 2014; Rangriz & Pashootanizadeh, 2014; Vidat, 2015). Other criteria for determining employee performance are task and time management, absenteeism and punctuality, professionalism, commitment, adaptability, steadiness under pressure, ethics and integrity, confidence, dependability, and versatility (Ahmed et al., 2013; Bacha,

2014; Jacobs, Belschak, & Den Hartog, 2014; Khan, 2015; Mishra & Sarkar, 2013; Öcal & Koçak, 2015; Osibanjo, Akinbode, Falola, & Oludayo, 2015).

Other researchers evaluated employee performance from a different perspective concerning aspects of work performance: initiation, communication, cooperation, quality of performance, quantity of performance, and contribution to the achievement of organizational goals (Ayers, 2013; Ayers, 2015; Cullen et al., 2014; Donovan, Dwight, & Schneider, 2014; Humborstad, Nerstad, & Dysvik, 2014). Some researchers measured employee performance regarding the employee's effort toward completing own task and effort toward helping colleagues to complete their tasks (Blazovich, 2013; Young et al., 2013). Another researcher evaluated task performance based on the in-role job behaviors directly related to the performance of an employee's job assignments. The behaviors include task performance behavior, individual-targeted citizenship behavior, and interpersonal counterproductive work behavior (Devonish, 2013).

Employee's task performance is the employee's level of understanding of role expectations, level of work skills, level of job performance, level of innovation, level of enthusiasm, effectiveness of application of cultural knowledge to task performance, ability to influence others to complete tasks, and ability to effectively use verbal and non-verbal behavior meet the expectations of others (Mishra & Sarkar, 2013; Nafei, 2013; Suliman & Harethi, 2013). Job design characteristics that increase job satisfaction and employee performance are skill variety, task significance, task identity, job autonomy and feedback (Ali & Zia-ur-Rehman, 2014).

**Criteria for evaluating organizational performance.** Researchers presented several organizational performance indicators from diverse industries. The major organizational performance criteria are profitability, growth, customer satisfaction, cost effectiveness, productivity, efficiency, environmental, social, and financial performance (Agwu & Ogiriki, 2014; Bulak & Turkyilmaz, 2014; Hyoung & Byoung, 2014; Jang-Ho & Khan-Pyo, 2013; Maley, 2014; Mohammad & Alaskari, 2014; Mousavi et al., 2015; Piza et al., 2016). Employee's perceived organizational performance is the employee's perception of the organization's financial performance, market performance, and economic performance (Akça et al., 2013; Chinomona, 2013; Dar et al., 2014; Yusoff, Imran, Qureshi, & Kazi, 2016).

Market performance is a company's market share regarding increase in sales, level of customer satisfaction, product quality, new product presentation, and a favorable comparison with rivals' performances (Ismail, 2015). Customer satisfaction is an important measure of organizational performance (Oumar & Mbonigaba, 2014). Financial performance includes the operating effectiveness of a company and how a company productively transforms market demands into profitable products. Economic performance includes costs, competitiveness, pure profit, returns on investment, increase in income and sales, and earnings per stock (Akça et al., 2013; Rowland & Hall, 2013; Vela-Jiménez et al., 2014). Customer-perceived organizational performance is the ability of a service organization to meet customer expectations and achieve organizational goals (Laihonen et al., 2014).

**Summary.** Several researchers presented the criteria for evaluating employees' perceived task performance and perceived organizational business performance in various contexts (Agwu & Ogiriki, 2014; Ahmed et al., 2013; Akça et al., 2013; Ali & Zia-ur-Rehman, 2014; Bacha, 2014; Blazovich, 2013; Caillier, 2014; Campbell, 2015; Cullen et al., 2014; Devonish, 2013; Hyoung & Byoung, 2014; Mishra & Sarkar, 2013; Laihonen et al., 2014; Maley, 2014; Mohammad & Alaskari, 2014; Mousavi et al., 2015; Nafei, 2013; Öcal & Koçak, 2015; Oumar & Mbonigaba, 2014; Piza et al., 2016; Sahin & Uslu, 2014; Sanjeev & Singh, 2014; Suliman & Harethi, 2013; Young et al., 2013). The most common criteria for measuring employee performance are employee's knowledge of the job, completed work quality and quantity, employee's problem-solving, decision-making and leadership skills, teamwork and collaboration, employee's motivation and enthusiasm, ethics and integrity, effective communication and information sharing, and the employee's task and time management (Ahmed et al., 2013; Bacha, 2014; Cullen et al., 2014). Other criteria for measuring employee performance are the level of innovativeness, punctuality, dependability, adaptability, versatility, and ability to support and influence others to complete tasks (Blazovich, 2013; Öcal & Koçak, 2015; Young et al., 2013).

The most common criteria for measuring perceived organizational performance are stakeholders' perception of the level of achievement of organizational goals regarding company productivity, financial profits, market share, growth, and customer satisfaction (Agwu & Ogiriki, 2014; Dar et al., 2014; Hyoung & Byoung, 2014; Ismail, 2015; Mohammad & Alaskari, 2014; Mousavi et al., 2015; Oumar & Mbonigaba, 2014; Piza et

al., 2016). Other criteria for measuring perceived organizational performance are product or service quality, cost performance, competitiveness, environmental preservation, and return on investment (Akça et al., 2013; Bulak & Turkyilmaz, 2014; Maley, 2014; Rowland & Hall, 2013; Vela-Jiménez et al., 2014). Similar criteria for measuring employees' perceived task performance and perceived organizational business performance apply to the petroleum industry.

An area of both aspects of performance for future study is the impact of a government policy, the act, on either employee task performance or organizational business performance. In the present study, I examined the impact of employees' perceived level of implementation of the act on employees' perceived task performance, and perceived organizational business performance from the context of the petroleum-producing companies in Nigeria.

## Nigerian Oil and Gas Industry Content Development Act's Impact on the Nigerian Petroleum Industry

**Introduction.** Several researchers have evaluated the impact of the act on different aspects of the Nigerian petroleum industry. The executive managers of the petroleum-producing companies have also issued reports documenting the impact of the act on their companies' operations and business performance.

**Impact reported in the research literature.** The IOCs are developing and implementing effective CSR initiatives in support of the objectives of the act. The development of effective CSR initiatives will ensure the social and infrastructural development of Nigerian communities, especially the host communities of the petroleum-

producing companies in the Niger Delta region of the country (Ngoasong, 2014; Renouard & Lado, 2012). Cultural and socio-economic inequalities and imbalances are the major reasons for the insecurity and violence in the Niger Delta region (Renouard & Lado, 2012). The IOCs need to do more than just pay corporate tax. The IOCs need to participate directly in the development of their host communities to address the problem of social and economic inequality (Renouard & Lado, 2012).

The IOCs contributed to the achievement of the objectives of the act through workforce development, host community investments, supplier capacity development, research and development, stakeholder engagement, local technological capacity building, and preferential selection of local contractors for project execution (Monday, 2015; Ngoasong, 2014). Local content development contributed to the development of the local economy through increased indigenous participation in productive economic activities in the petroleum industry. The domiciliation of economic activities in the petroleum industry of Nigeria is a sustainable model for retaining control of the most valuable natural resource in the hands of the indigenous people (Ovadia, 2013). Improving the interactions among the most important stakeholders in the Nigerian petroleum industry beyond the unidirectional interaction between the government and the IOCs will also support the realization of the objectives of the act (Monday, 2015).

**Impact reported by the major petroleum-producing companies.** The five major IOCs in Nigeria are (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. Since the implementation of the act in 2010, the IOCs commit a large part of their annual spending on meeting the requirements of the act and executing initiatives to boost local

technological capacity development in Nigeria (Atsegbua, 2012; Ovadia, 2013). In addition to meeting the reporting requirements of the act directly to the NCDMB, the IOCs also issue annual performance reports to the public that include sections on local content development. The IOCs reported significant achievements in their efforts to contribute to Nigerian content development.

The management of Chevron, the third largest IOC operating in the Niger Delta region and offshore in the deep water of Nigeria, invested over $4 billion in the Niger Delta region of Nigeria in 2012 in support of local content development. The investment was 40% of the company's spending on contracts awarded to local firms for goods and services, remunerations for employment of the indigenes, and regulatory fees paid as part of the development of a gas-to-liquids (GTL) project. A significant part of the employed indigenes worked on the construction of the GTL facility. The management of Chevron contributed to local technical capacity development by providing training and practice opportunities in the construction of petroleum processing facilities (Chevron, 2012).

The management of Chevron started a welders training program in 2010 to build the capacity of local youths in welding and fabrication skills. The management of the company provided assistance to the youths in acquiring international certification to improve their ability to participate in the petroleum industry. Chevron's management initiated the operations and maintenance training program to train academically qualified graduates from the local communities and other parts of Nigeria on the operation and maintenance procedures of the technically sophisticated facilities required for petroleum production and processing projects. The company's management funded research into the

development of corrosion-resistant paint for application in the local petroleum industry, and supported a local firm that specializes in marine vessel acquisition and leasing services to develop its fleet of marine vessels to support Chevron operations in the Niger Delta (Chevron, 2012).

The management of Chevron built local contractor capability through the provision of technical support to prospective suppliers and investors, sale and leaseback arrangements to increase major equipment and asset ownership by Nigerian companies, and registration and revalidation of contractors for provision of goods and services to the industry. The company's management also sponsored training programs, including executive management training, technical and professional skills training, on-the-job training, and Nigerian Content Human Capacity Development Initiative (NCHCDI) training (Chevron, 2013).

The management of Chevron provided financial support to Nigerian contractors through selective advance payments backed by bank guarantees and accelerated payments. The company's management awarded catering contracts worth around $99 million to five Nigerian contractors. Chevron's management also awarded contracts to 15 Nigerian companies for the supply of highly skilled manpower valued at over $132 million, and another set of contracts to 16 Nigerian companies for supply of semi-skilled manpower valued at over $260 million. The board of Chevron reported a total expenditure of $4.69 billion on Nigerian Content and Local Community Contracts in 2013 (Chevron, 2013).

In 2014, and following a similar trend of activities and expenditure as was done in 2013, the management of Chevron designed and implemented capacity building programs to help local companies meet global petroleum industry standards and provide goods and services to Chevron and other petroleum-producing companies in Nigeria. Chevron's management partnered with indigenous petroleum services companies to grow their technical capacity to supply both onshore and offshore oilfield equipment and services. Chevron's management assessed the capacity of local businesses and supply chains in the development of national and local content for major capital projects in 2014 (Chevron, 2014).

The management of Chevron completed over 258 projects worth more than $83 million in about 400 communities in the Niger Delta region of Nigeria in 2015. The company's management completed the projects using a new approach to community engagement and development called the Global Memorandum of Understanding (GMoU), in which the local communities have a higher level of participation in determining the needs for which Chevron community development programs are designed to address. Chevron's management also set up a local community content development team to demonstrate the company's commitment to local content development and to foster strong business partnerships with the local service providers and product suppliers to increase their technical and professional capabilities (Chevron, 2015).

The board of Shell reported significant results on local content development. In 2013, Shell's management reported a workforce comprising 90% of Nigerians as part of

the company's commitment to indigenous manpower development for the benefit of the local petroleum industry. Shell's management made use of local contractors and service suppliers as a business strategy to gain competitive advantage. The management of the company promoted the use of locally manufactured goods and Nigerian service companies in production operations, projects, and well engineering. Shell's management provided technical and financial support for indigenous asset ownership of marine vessels, rigs, and transport vessels. The management of the company also supported the local equipment and pipe manufacturing companies in setting up facilities and getting internationally recognized certification for the local production of equipment and line pipes for use in the Nigerian petroleum industry (Shell, 2013a).

The management of Shell supported local manpower development in 2013. The company's management equipped the Nigerian Institute of Welders (NIW) Laboratories as a means of providing welding and product testing training to Nigerian welders, with the purpose of replacing the predominant expatriate workforce of welders in the local petroleum industry. Shell's management supported the Federal College of Marine Technology (FCMT) in developing the facilities to aid domestication of divers training and increase the quota of Nigerian divers employed in the local petroleum industry. The company's management also trained Nigerians from the Niger Delta region in the provision of world-class catering services and subsequently employed the trainees to run the catering facility in one of the company's production terminals (Shell, 2013a).

The management of Shell promoted research and development through the funding of local universities to research the possibility of local production of drilling

fluid for application in oil and gas wells delivery. The company's management also launched a $5 billion Contractor Support Fund Scheme in partnership with five Nigerian financial institutions. The Contractor Support Fund Scheme allows local firms that secure contracts from Shell companies in Nigeria to access affordable credit to support the execution of the contracts. Shell's management also setup networking events to assist local firms in developing networking opportunities with international technical partners that could lead to mutually beneficial business opportunities (Shell, 2013a). Shell's management facilitated loan awards to 17 Nigerian contractors worth than $175 million to execute awarded contracts in 2014 (Shell, 2014).

The management of Shell awarded 96% of the total number of contracts in 2012 to Nigerian firms. The awarded contracts were worth $2.4 billion and represented an increase of about 70% over the worth of contracts awarded to Nigerian firm in 2011. The worth of the awarded contracts represented 64% of the company's total spending on contracts in 2012. Shell's management also signed domestication agreements with six equipment manufacturers and their Nigerian partners in 2012 to establish assembly and manufacturing facilities in Nigeria. The company's management focused on job creation for the local population through several local content development projects (Shell, 2013b).

The management of Shell awarded 90% of the total number their 2014 contracts to Nigerian firms as a contribution to indigenous human capital development, technological capability building, and capacity development for contract execution. The company's board reported that out of its entire global operation, Nigeria is the biggest

beneficiary of social investment expenditure with over $125 million spent on meeting technical development requirements and executing social investments projects in 2014 (Shell, 2015).

Similarly, the board of Eni reported gains in local content development. Eni's management added local content requirements to its global procurement guidelines as a means of adding value to the economy of the host country. The company's management mandated each subsidiary to develop a framework suitable for the local content development requirements and regulations of the host country. Eni's management also gave due consideration to the capacity of the local market, the risk assessment of doing business locally, and the potential for satisfying the procurement needs of the company for local operations (Eni, 2015).

The management of Eni implemented a Vendor Management System (VMS) for the provision of support and training to local companies to achieve international certification in standards and performance levels and improve their capability to execute new supply contracts. In 2014, Eni's management procured 58% of the company's overall goods and services from local markets, an amount equal to around 25 billion euros. Eni's operations exceeded 50% level of locally procured goods and services in several host countries including Nigeria (93%), Republic of the Congo (70%), Ghana (50%), Kazakhstan (62%), Indonesia (98%), and Ecuador (96%) in support of the local content strategies in place within the company and from each host country's government (Eni, 2015).

The board of ExxonMobil invested over $1 billion in Nigerian content development as a way of demonstrating the company's commitment to local labor and technological capacity development. ExxonMobil's management was the first to approve and use Nigerian made pipes in the construction of over 30 kilometers of pipe network in 2011. The company's management achieved this milestone by working with a Nigerian pipe-manufacturing firm to develop new specifications and processes for making high-quality pipes for use in low pressure and shallow water environments. In 2012, ExxonMobil's management supported the design, fabrication, and commissioning of the first offshore wellhead platforms constructed in Nigeria (ExxonMobil, 2015a).

The management of ExxonMobil, in partnership with 12 Nigerian banks, launched a contractor finance scheme to provide contractors with affordable credit facilities to execute the contracts to support company operations. The contractor finance scheme launched in 2013 to improve the success of contract execution and to boost local supplier capacity and technical development. Since inception, 24 Nigerian firms have benefitted from the $8.6 billion credit scheme (ExxonMobil, 2015b).

Finally, the board members of Total reported significant contributions to the development of local content in Nigeria through the company's offshore Egina field development project. The project is the first major petroleum production and processing project executed by the management of the company in Nigeria since the implementation of the act. Total's management reported that the project would require 2,000 jobs a year to execute. The company's operations will require 60,000 tons of materials and equipment fabricated in Nigeria in the project.  The engineering design for the project

done in Nigeria was a first for the management of Total in Nigeria. Total's management will use the project to contribute further to local content development through collaborative technology transfer between international and Nigerian companies involved in the project (Total, 2014).

**Summary.** Researchers and the management of petroleum-producing companies in Nigeria reported several positive results and significant business gains demonstrating the impact of the act since its implementation in 2010 (Monday, 2015; Ngoasong, 2014; Ovadia, 2013; Renouard & Lado, 2012; Chevron, 2012, 2013, 2014; Eni, 2015; ExxonMobil 2015a, 2015b; Shell, 2013a, 2013b, 2014, 2015; Total 2014). The major results reported in the literature are the infrastructural and economic development of the host communities (Renouard & Lado, 2012). Researchers also reported improvements in human capital development, supplier capacity development, and local technological capacity building as the benefits of the act (Monday, 2015; Ngoasong, 2014). The major results reported by the management of the petroleum-producing companies are improved relations with the host communities, local manpower development, community development initiatives, and the development of local technological capacity to support the petroleum industry (Chevron, 2012, 2013, 2014; Eni, 2015; ExxonMobil 2015a, 2015b; Shell, 2013a, 2013b, 2014, 2015; Total 2014).

## Gap in the Literature

Researchers conducted some studies on the impact of the act on the Nigerian petroleum industry (Monday, 2015; Ngoasong, 2014; Ovadia, 2013; Renouard & Lado, 2012). The major benefits are the increased spending on Nigerian-sourced goods and

services by the IOCs, the development of local expertise and capacity, and the improvement of the local and national economy. Other benefits are the improvements in community development initiatives and the economic boost given to the allied industries and sectors of the Nigerian economy such as the manufacturing industry and financial sector.

A major gap in the literature is the absence of scholarly research on the impact of the employees' perception of the level of implementation of the act on employees' perceived task performance and perceived organizational business performance in the petroleum-producing companies in Nigeria. Such a study is important to the IOCs because of their huge annual financial commitment to meeting the requirements of the act since 2010. The study is also useful to Nigerian government officials in improving policy development and implementation processes in the local oil and gas industry. I addressed the identified gap in the literature in the present study.

**Research Methodologies Adopted for Studies on Individual and Organizational Performance**

In the reviewed literature, most of the researchers demonstrated a preference for quantitative research design and survey research methodology. The quantitative survey approach was employed in different contexts such as survey instrument (Akça et al., 2013; Ali & Zia-ur-Rehman, 2014; Caillier, 2014; Nafei, 2013; Öcal & Koçak, 2015), survey questionnaire (Bacha, 2014; Sahin & Uslu, 2014; Suliman & Harethi, 2013), face-to-face interview and survey questionnaire combination (Cullen et al., 2014), cross-sectional survey design (Dar et al., 2014; Devonish, 2013), descriptive survey design

(Agwu & Ogiriki, 2014), and partial least squares analyses using opinion survey data (Hyoung & Byoung, 2014).

The strength of using the survey methodology is the capacity to quickly acquire a huge volume of data about a set of measured variables about a subject matter (Leedy & Ormrod, 2010, p. 187). Surveys are also suitable in research circumstances where it is challenging to directly observe and measure the required data (Balnaves & Caputi, 2001, p. 75). The weakness of the different applications of the survey methodology is the inability to directly observe the reactions or measure the responses in the environmental context of the respondents.

I carried out a correlation analysis and factor analysis of the quantitative data obtained from the survey responses. The outcome of a research study validated the use of a correlation analysis and factor analysis on Likert scale data (Norman, 2010). The researcher established that Likert scale data that are anchored with words only on the extreme ends of the choices so that the middle choices could be viewed as equal intervals between the extremes can be treated as interval data. Therefore, a correlation analysis and factor analysis can be used (Norman, 2010).

Other research designs and methodologies used in the reviewed literature are experimental study (Blazovich, 2013), structural equation modeling (Campbell, 2015; Jacobs, 2014; Mousavi et al., 2015; Vela-Jiménez et al., 2014; Young et al., 2013; Yusoff et al., 2016), the application of a fuzzy logic model (Ahmed et al., 2013), and qualitative design using case study methodology (Khan, 2015; Laihonen et al., 2014). These other designs and methodologies are more applicable to studies that are conceptual or empirical

in nature. I used a quantitative research design and descriptive correlational method in the present study.

## Summary and Conclusions

I reviewed the most relevant peer-reviewed scholarly journal articles, books, government documents, reports from professional organizations, and corporate documents from the petroleum-producing companies in Nigeria. Social cognitive theory was the theoretical foundation for the study (Bandura, 1989). The most common criteria for evaluating employees' perceived task performance based on the reviewed literature are the employee's knowledge of the job, completed work quality and quantity, the employee's problem-solving, decision-making and leadership skills, teamwork, motivation, ethics and integrity, effective communication and information sharing, and task and time management (Ahmed et al., 2013; Bacha, 2014; Cullen et al., 2014).

The most common criteria for evaluating employees' perceived organizational business performance based on the reviewed literature are the level of achievement of organizational goals regarding company productivity, financial profits, growth, and customer satisfaction. Other criteria for evaluating perceived organizational business performance are service quality and cost performance (Agwu & Ogiriki, 2014; Akça et al., 2013; Hyoung & Byoung, 2014). I also reviewed the literature on the impact of the act on natural resource management, supply chain management, and human capital development in Nigeria (Monday, 2015).

A major gap in the literature is the absence of scholarly research on the impact of the perceived level of implementation of the act on employees' perceived task

performance and perceived organizational performance in the petroleum-producing companies in Nigeria. The petroleum-producing companies spend an average of $13 billion annually since 2010 on locally procured goods and services to meet the requirements of the act (Atsegbua, 2012; Nwapi, 2015a; Ovadia, 2013). There is no research study on the impact of the act on the performance of the petroleum-producing companies despite the significant annual expenditures of the companies. I addressed the identified gap in the literature in the present study.

In Chapter 3, I described a quantitative research design and descriptive correlational method for the study. I also presented the survey I designed as the data collection instrument for the study. I described the planned correlational and inferential statistical analysis to examine the effect of employees' perceived level of implementation of the act on employees' perceived task performance, and perceived organizational business performance.

# Chapter 3: Research Method

## Introduction

The purpose of this quantitative correlational study was to examine the relationship between employees' perceived level of implementation of the act, employees' perceived task performance, and perceived organizational business performance in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. The independent variable was employees' perception of the level of implementation of the act in the petroleum-producing companies. The dependent variables were measures of employees' perception of task performance and perceived organizational business performance among the sample petroleum-producing companies since the implementation of the act in 2010. The specific population group of the present study was full-time employees of the five major petroleum-producing companies in Nigeria.

In this chapter, I describe the quantitative research design and rationale and the descriptive correlational method that I selected for the study. I provide details on population selection, sampling, and data collection. I round up with a description of the data analysis techniques and how threats to validity and ethical issues were addressed in the study.

## Research Design and Rationale

In this study, I used a quantitative research design and descriptive correlational method to examine the correlation between the independent and dependent variables as

stated in the research questions. The research questions and the hypotheses were the following:

1. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance?

   *H*o1: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

   *H*a1: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

2. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance?

   *H*o2: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

   *H*a2: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

The independent variable was employees' perception of the level of implementation of the act. The dependent variables were employees' perceived task performance and perceived organizational business performance. I used an email-

conveyed online self-administered survey to gather the required data in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. I analyzed the data to determine the correlation between the independent and dependent variables.

The quantitative research design and descriptive correlational method were appropriate for the study because they are consistent with the aim of examining two or more variables through data measurement, analysis, and comparison (Leedy & Ormrod, 2010, p. 182). A quantitative research design using an online survey allows a researcher to collect a high volume of data in a short time period from a high number of respondents over a large geographical area without incurring significant expenses in the process of data collection (Leedy & Ormrod, 2010, p. 203; Rea & Parker, 2014, p. 7).

I considered and rejected two other quantitative research designs for the present study. An experimental design involves the selection of participants to take part in an experiment. The researcher directly observes the responses of the participants in the study environment and interprets the responses in the experiment (Leedy & Ormrod, 2010, pp. 231-233). A quasiexperimental design is different from a traditional experimental design in the lack of randomness of assignment of participants to the treatment and control groups in the research. A quasiexperimental design applies to experiments where the random selection of participants or control groups is impractical (Leedy & Ormrod, 2010, pp. 233-237).

I rejected the experimental and quasiexperimental designs as inappropriate because of the nonexperimental nature of the present study. In addition, I rejected

qualitative techniques for the present study because the focus of this study was on finding a correlation between three variables by measuring and analyzing hard data. The primary focus of qualitative research design is on revealing behaviors or studying experiences, not on measuring and analyzing hard data. I selected the five major petroleum-producing companies in Nigeria for the study because they are the major investors in the Nigerian petroleum industry in terms of employee size, capital investment, and annual expenditure (Atsegbua, 2012; Ovadia, 2013).

## Methodology

The research methodology chosen for this quantitative study was the descriptive correlational method. Researchers use the correlational research method to examine relationship between two or more variables (Leedy & Ormrod, 2010, p. 108). In a correlational study, the researcher gathers and analyzes data on the variables of interest for a particular group to determine if a change in one variable relates to changes in the other variables (Leedy & Ormrod, 2010, pp. 183-184). I used an email-conveyed online self-administered survey as the data collection instrument in the study. The survey was appropriate for data collection in the present study due to the nature of the study. In the following sections, I describe the population, sampling and sampling procedures, and data collection process for the study.

### Population

I drew the primary sample from full-time employees of the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. The target population of full-time employees of the five major petroleum-

producing companies in Nigeria consisted of about 12,000 employees, based on the corporate reports of the companies as of December 2015. The roles of the employees included entry-level workers, experienced technical and business professionals, and management roles.

The technical professionals were engineers and technicians from the field of engineering, which included petroleum, mechanical, industrial, civil, chemical, electrical, and other aspects of engineering. The business professionals were social scientists and business discipline professionals from various fields that included human resource management, accounting and finance, health and safety, law, and contracting and procurement. The management-level employees occupied positions such as team leader, project manager, and senior executive.

**Sampling and Sampling Procedures**

The sampling strategy I employed in this study was purposive sampling, a form of nonprobabilistic sampling. Nonprobabilistic sampling involves the selection of components from a predetermined population group without any consideration for the randomness of selection of the components (Leedy & Ormrod, 2010, p. 211). Purposive sampling involves the selection of people or units for a particular purpose because the particular people or units selected are representative of the wider group (Leedy & Ormrod, 2010, p. 212).

The sampling strategy was appropriate for the study because the study was specific to the petroleum-producing companies in the Nigerian petroleum industry. I purposively selected the participants from among full-time employees of the five major

petroleum-producing companies, who are part of a wider group of workers in the Nigerian petroleum industry. The main weakness of a purposive sampling strategy is the intentional exclusion of some members of the larger population group from the study (Leedy & Ormrod, 2010, p. 211).

I drew the population sample from full-time technical and business professionals working in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. I asked for the support of the management of the selected petroleum-producing companies to disseminate the invitation email on my behalf to prospective participants. The management of the selected petroleum-producing companies disseminated the invitation email to full-time employees. I used the invitation email to request voluntary participation in the study by completing an online survey. I involved only full-time employees in the study. The decision to participate or not was completely up to the employee.

The sampling frame is the sequence of steps that leads to the selection of a representative sample from a general population or universe (Rea & Parker, 2014, p. 30). The general population for the present study consisted of full-time employees of the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. The sample population of employees included technical and business professionals at diverse work experience levels and in various roles across the operations of the five petroleum-producing companies, including engineering, health and safety, human resource management, contracting and procurement, accounting and finance, and legal services.

I contacted the employees who qualified as full-time staff members of each company through an invitation email disseminated by their company's management to request voluntary participation in the study. The sampling frame excluded service companies' contractor employees and employees on short-term assignments with the selected companies. This was because none of the five major petroleum-producing companies was the parent company for these classes of employees, though these employees worked on the worksite and offices of the petroleum-producing companies.

The equation I used for determining sample size from a population (Rea & Parker, 2014, p. 169) was the following:

$$n = \frac{Z_{\alpha}^{2}[p(1-p)]N}{Z_{\alpha}^{2}[p(1-p)] + (N-1)ME_{p}^{2}}$$

where

$n$ = sample size

$Z_{\alpha}$ = standardized $Z$ score for various levels of confidence, α

$p$ = established standard proportion/true population proportion

$N$ = true population size

$ME_p$ = margin of error regarding proportions

Therefore, for $Z_{\alpha} = 1.96$ ($\alpha = 95\%$), $p = 0.5$, $N = 12{,}000$ and $ME_p = \pm 5\%$, I calculated the sample size to be the following:

$n$ = 372 employees

The use of 95% level of confidence in this study was in line with the general use of that level of confidence by researchers to balance the risk between Type I and Type II errors. *Type I error* is the error associated with making a decision based on the data from

a sample. *Type II error* is the error derived from the researcher being too conservative and not taking action based on the results of sample data (Rea & Parker, 2014, p. 166). In addition, broadening the confidence interval to 95% mitigated the risk of making an error in the generalization of the study outcomes to the general population (Rea & Parker, 2014, p. 148).

The use of 5% margin of error was in line with the tendency of researchers to use a similar value in the design of surveys (Rea & Parker, 2014, p. 171). The use of an established standard proportion (or true population proportion) of 50% ($p = 0.5$) was an assumption based on the expectation that at least half of the general population were sufficiently knowledgeable about the perceived level of implementation of the act and its perceived impact on employee task performance and organizational business performance. This assumption was valid because all of the petroleum-producing companies in Nigeria have implemented the act in their operations as required by law, and the employees have all been working within the context of the implemented act. The calculated sample size of 372 full-time employees was, therefore, sufficient to address the research questions on the correlation between the independent and dependent variables in the petroleum-producing companies in Nigeria.

The calculated sample size of 372 full-time employees out of a target population of 12,000 full-time employees of the five major petroleum-producing companies in Nigeria was fit-for-purpose and easy to manage regarding cost, time, and ease of conducting the online survey and collating the survey responses for analysis. The nature of the present study and the data collection mechanism were completely harmless to the

participants in the study because there was no direct application of any material intervention to any participants in the study. Furthermore, the survey had no element that might cause anxiety, fear, or any other physical or psychological harm to the respondents.

The calculated sample size was sufficiently large enough to provide generalizable outcomes that were representative of the target population. The calculated sample size took into account the recommended practices in sample size estimation to ensure the detection of a real relationship between the employees' perception of the level of implementation of the act, employees' perceived task performance, and perceived organizational business performance. The sample size calculation method that I used in the present study was consistent with the methods used in other survey research literature on similar studies (Ali & Zia-ur-Rehman, 2014; Leedy & Ormrod, 2010, p. 214; Nafei, 2013; Sahin & Uslu, 2014; Suliman & Harethi, 2013).

**Procedures for Recruitment, Participation, and Data Collection (Primary Data)**

I used a survey as the data collection instrument. I administered the survey through an invitation email, with a link to the online survey provided in the email (Appendix A). The participants, who were full-time employees of the five major petroleum-producing companies in Nigeria, received the invitation email disseminated by their management on my behalf. The invitation email contained a link to the online survey portal where the participants voluntarily completed a series of questions in a survey. The decision to participate in the study was strictly up to each participant.

To ensure voluntary participation in the survey, I sought consent from each participant at the start of the survey with a participant consent form stating the purpose of

the study, the objectives of the survey, the risks and benefits, and the request to provide online consent. I informed the participants of the approval I received to conduct the research study from Walden University's Institutional Review Board (IRB). I provided the IRB approval number 09-19-16-0298710 with expiry on September 18, 2017.

The options to either participate in the study or not were chosen by each participant by clicking on the provided buttons at the start of the survey. A participant's decision to participate by clicking on the *next* button took the participant to the survey, whereas a decision not to participate by clicking on the *exit survey* button allowed the employee to exit the survey. The *exit survey* button was also available at any point in the survey.

In Part A of the survey instrument, I addressed the first research question. I collected data from the respondents on the relationship between their perception of the level of implementation of the act and their perceived task performance. In Part B of the survey instrument, I addressed the second research question. I gathered data from the respondents on the relationship between their perception of the level of implementation of the act and their perceived organizational business performance.

In Part C of the survey instrument, I gathered demographic information from the participants on age, gender, level of education, role in the company, and number of years of work experience with the company. I used the demographic information to provide background information on the personal and professional characteristics of the participants in the study. I provided the participants with my email and the contact details of Walden University's Research Participant Advocate for the purpose of answering any

questions related to the study or responding to any concerns that they might have about their rights as participants before, during, and after the data collection process. I also informed the participants that the outcome of the study would be shared with each participant who wished to know.

I collected the data to correlate the impact of employees' perceived level of implementation of the act on employees' perceived task performance, and perceived organizational business performance from the respondents to the survey. I used email as the mode of transmission of the request to participate voluntarily in the survey because of the ease of distribution to a large population of participants.

I used an online survey instrument because of the ease of collation of the survey responses in electronic form. Participants completed the survey by clicking a *submit* button to save and submit their responses to the online survey database. After submitting the survey response, a message to thank the respondents for participating in the survey appeared. Due to the nature of the present study, there was no requirement for a follow-up procedure after the completion of the survey.

The data collection procedure was as follows:

1. Obtained the support of the management of Shell Nigeria to disseminate the invitation email on my behalf to the prospective participants in the pilot study (Duration: 1 day).
2. Participants voluntarily completed the pilot study survey (Duration: 7 days).

3. Obtained the support of the management of the five major petroleum-producing companies in Nigeria to disseminate the invitation email on my behalf to the prospective participants in the main study (Duration: 1 day).
4. Participants voluntarily completed the main study survey (Duration: 30 days).

I made follow-up calls to the management of the five major petroleum-producing companies to confirm the distribution of the invitation email to a population greater than the sample size of 372 full-time employees to ensure the achievement of the target number of responses in the main study.

**Pilot Study**

I conducted a pilot study to test if the respondents fully understand the survey questions prior to using the instrument in the main study. I used the pilot study to check for any potential ambiguity in the construction of the survey questions. I also used the pilot study to test the validity and reliability of the survey instrument regarding the consistency of the responses from the participants in the study to the survey questions. I conducted the pilot study using a smaller sample size of 20 full-time employees of Shell, one of the major petroleum-producing companies in the Nigerian petroleum industry. The participants in the pilot study did not participate in the main study to assure the independence of the pilot study outcomes for improving the survey instrument and to safeguard the integrity and reliability of the outcomes of the main study (Balnaves & Caputi, 2001, p. 87).

I conducted the Cronbach's coefficient of alpha test on the responses from the pilot study to test the internal consistency and reliability of the survey instrument (Raggi

et al., 2014; Silva, Taveira, Marques, & Gouveia, 2015; Tavakol & Dennick, 2011; Villeneuve et al., 2015). The pilot study served as a test of the suitability and sufficiency of the researcher instrument as a data collection mechanism for application in the main study. The pilot study also provided an indication of the level of time and resources required to conduct the survey for the main study and to collate the responses across the five major petroleum-producing companies in Nigeria. I selected Shell Nigeria for the pilot study based on my familiarity with the company, and consequently the ease of conducting the pilot study in the company. The other four petroleum-producing companies were kept as alternatives to Shell Nigeria for the pilot study.

I ensured voluntary participation in the pilot study. I asked for the support of the management of Shell Nigeria to disseminate the invitation email on my behalf to the participants in the pilot study. The participants in the pilot study received the invitation email with a link to the online survey portal where they completed the pilot survey (Appendix B). I explained the purpose of the pilot study in a participant consent form at the start of the survey. I informed the participants of the approval I received to conduct the research study from Walden University's IRB and provided the IRB approval number in the consent form.

I requested voluntary consent to participate from each participant by clicking on either a *next* or an *exit survey* button at the start of the survey. A participant's decision to participate by clicking on the *next* button took the participant to the pilot survey while a decision not to participate by clicking on the *exit survey* button allowed the employee to exit the pilot survey. The *exit survey* button was also available at any point in the pilot

survey. The pilot study procedure and survey instrument were completely harmless to the participants in the study because there was no direct application of any material intervention to any participants in the study. Furthermore, the survey had no element that might cause anxiety, fear, or any other physical or psychological harm to the respondents.

I collected demographic data strictly for providing background information on the participants in the pilot study. I provided the participants with my email and the contact details of Walden University's Research Participant Advocate for the purpose of answering any questions related to the study or responding to any concerns that they might have about their rights as participants before, during and after the pilot study. I also informed the participants that the outcome of the pilot study would be shared with each participant that wished to know. Participants completed the pilot survey by clicking a *submit* button to save and submit their responses to the online survey database. After submitting the survey response, a message to thank the respondents for participating in the pilot survey appeared.

**Instrumentation and Operationalization of Constructs**

I designed the survey instrument because of the scarcity of previous quantitative correlational research studies on the impact of the act on the Nigerian petroleum industry. I originally designed the survey instrument based on the purpose of the study, the knowledge gained from the outcomes of the literature review, and the nature of the research questions. I finalized the design of the survey instrument based on the outcome of the pilot study. I called the final survey instrument the Nigerian Petroleum Industry Perceived Performance Survey (NPIPPS). Appendix C shows the survey instrument.

The four levels of measurement, according to Frankfort-Nachmias, Nachmias, and DeWaard (2008) are (a) nominal, (b) ordinal, (c) interval, and (d) ratio levels of measurement. At the nominal level of measurement, objects are classified using numbers, categories or symbols for representation, for example, hair colors or blood types. At the ordinal level of measurement, researchers measure variables through defined relationships between the variables. It is possible to order the variables based on the pre-defined relationship, for example, a series of degrees of interest in an object by an individual from *not interested* to *very interested*. At the interval level of measurement, researchers measure variables in fixed and equal units between each variable, for example, temperature measured in degrees centigrade. At the ratio level of measurement that is the highest level of measurement, researchers measure variables in absolute values that have fixed zero points, for example, height and weight of objects.

I used the nominal level of measurement to measure some of the demographic data gathered in the study such as gender and role in the company. I treated the Likert scale data obtained from the survey responses as interval data. I achieved the treatment of Likert scale data as interval data by anchoring only the extreme ends of the choices on the 5-point Likert scale with words so that the middle choices could be viewed as equal intervals between the extremes. By treating the Likert scale data as interval data, I was able to conduct parametric statistical analysis of the data (Norman, 2010).

I used the interval level of measurement to measure the correlation between the independent variable and the dependent variables. This was an example: The act has increased my knowledge of the tasks I perform. This was another example: The act has

improved the cost performance of my current place of employment. I also used the interval level of measurement to measure applicable aspects of the demographic data such as the age range of the respondents.

I ensured that I demonstrated content, empirical, and construct validity by measuring the right variables, outputs, or results in the present study. Content validity is the degree to which a research or measurement represents all aspects of a given social construct or natural phenomena (Leedy & Ormrod, 2010, p. 92). I ensured that the study addressed and measured all aspects affecting the response of the dependent variable to changes in the independent variable to demonstrate content validity. I ensured measurements were taken that truly reflected pre-defined levels of the dependent variables of the employees' perceived task performance and perceived organizational business performance concerning the effects of the independent variable, the employees' perception of the level of implementation of the act.

I also ensured content validity by carrying out a factor analysis of the quantitative data obtained from the survey responses to identify the most important interrelated group of variables or factors that support the impact of the act on employees' perceived task performance and perceived organizational business performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010). By carrying out a factor analysis, I was able to contribute to the literature on the application of the social cognitive theory to the performance-related impact of the act in the Nigerian petroleum industry. I was also able to identify the most important factors of the employee and organizational performance that were

affected the most by the act. I was able to find potential areas of improvements in the drafting and implementation of the act by carrying out a factor analysis of the data.

Empirical or statistical validity is a measure of how well the results of a research or experiment correspond to observed responses in a wider context. Empirical validity is the applicability of the results of a study to a wider population beyond the sample size used in the study (Balnaves & Caputi, 2001, p. 176). I addressed empirical validity by using a sample size of 372 full-time employees from different areas of the business operations of the five major petroleum-producing companies to adequately represent the wider population of employees of petroleum-producing companies in Nigeria. I used this sampling strategy to address the empirical validity of the study by ensuring that the responses of the participants were representative of the responses of the wider population (Balnaves & Caputi, 2001, p. 176). I addressed the adequacy of the respondents to represent the wider population of the employees of the petroleum-producing companies by calculating the sample size from the true population size of the study (Rea & Parker, 2014, p. 169).

I also addressed the issue of external validity and generalizability of the study outcomes by following up with the management of the selected petroleum-producing companies to ensure that the invitation email is distributed to all the business areas and employee roles of the petroleum-producing companies. The distribution of the invitation email to a wide and diverse population of the workers in the selected petroleum-producing companies validated the generalizability of the outcomes of the study to the

entire petroleum-producing companies in the Nigerian oil and gas industry (Leedy & Ormrod, 2010, p. 100; Rea & Parker, 2014, p. 198).

Construct validity is a measure of how well observations or measurement tools represent or measure the variable under investigation (Leedy & Ormrod, 2010, p. 92). It is a means of ascertaining whether the measured variable behaves in a way the theory predicted it would or a measure of how well the measured responses represent what the researcher aim to measure in the research study. I addressed construct validity by constructing the survey questions in a way that maximized the possibility of determining any correlation between the independent and dependent variables. I constructed the questions on the correlation between the independent and dependent variables in terms that were easy to understand by the participants in the study.

In this study, the employees' perception of the level of implementation of the act was the independent variable. The dependent variables were the employee's perceived task performance and perceived organizational business performance. I defined an employee's perceived task performance as the measure of the ability of the employee to carry out assigned tasks towards achieving organizational business objectives.

I measured the employee's perceived task performance regarding the employee's knowledge of the task, adaptability, cooperation, quality of work done, quantity of work done, problem-solving, decision-making, leadership, professional attitude, integrity, versatility, and motivation (Ahmed et al., 2013; Bacha, 2014; Caillier, 2014; Campbell, 2015; Cullen et al., 2014; Farahani & Yarahmadi, 2015; Jacobs et al., 2014; Katamba &

Salman, 2014; Mensah, 2015; Osibanjo et al., 2015; Petros, 2014; Rangriz & Pashootanizadeh, 2014; Vidat, 2015).

I defined perceived organizational business performance as the measure of the degree to which an organization has achieved the predetermined business objectives regarding the employees' perception of organizational performance metrics. I measured the perceived organizational business performance regarding the performance metrics such as the efficiency of work processes, cost performance, competitiveness, profitability, growth, and customer satisfaction (Agwu & Ogiriki, 2014; Akça et al., 2013; Bulak & Turkyilmaz, 2014; Chinomona, 2013; Dar et al., 2014; Hyoung & Byoung, 2014; Jang-Ho & Khan-Pyo, 2013; Maley, 2014; Mohammad & Alaskari, 2014; Mousavi et al., 2015; Piza et al., 2016; Yusoff et al., 2016). I expressed both dependent variables regarding their specific context of usage in the petroleum industry to ensure the target participants fully understood the meaning of the variables I measured in the research study.

I addressed the reliability measurement of the survey instrument regarding the internal consistency and test/retest by initially designing the survey questions based on the recommended best practices in the literature. The survey instrument was then administered in a pilot study to a very small sample size of 20 full-time employees of Shell Nigeria. The objective of the pilot study was to test run the survey instrument. I used the feedback from the pilot study to confirm the overall adequacy of the survey instrument to address the research questions. I also ensured the reliability of measurement

by seeking the opinion of experienced peers in my professional industry in the design of the survey instrument to suit the purpose of my study.

**Operationalization of Variables**

The operationalization of the variables in this study based on the applicable levels of measurement was as follows:

1. Non-manipulated independent variable

   The employees' perception of the level of implementation of the act in their company was the independent variable. The employees' perception of their company's level of implementation of the requirements of the act required the interval level of measurement (Norman, 2010). I measured the perception level on a 5-point Likert scale, for example: 1: Very low to 5: Very high in response to the question: Rate your perception of how well your current place of employment has met the requirements of the act since its implementation in 2010. High scores indicated a high level of compliance with the requirements of the act.

2. Dependent variables

   a. I defined the employee's perceived task performance as a measure of the ability of an employee to carry out assigned tasks towards achieving organizational business objectives. I measured the employee's perceived task performance regarding the employee's knowledge of the task, adaptability, cooperation, quality of work done, quantity of work done, problem-solving, decision-making, leadership,

professional attitude, integrity, versatility, and motivation (Ahmed et al., 2013; Bacha, 2014; Caillier, 2014; Campbell, 2015; Cullen et al., 2014; Farahani & Yarahmadi, 2015; Jacobs et al., 2014; Katamba & Salman, 2014; Mensah, 2015; Osibanjo et al., 2015; Petros, 2014; Rangriz & Pashootanizadeh, 2014; Vidat, 2015). The effect of the perceived level of implementation of the act on each component of the employees' perceived task performance required the interval level of measurement (Norman, 2010). I measured the effect on a 5-point Likert scale, for example: 1: Strongly disagree to 5: Strongly agree in response to the question: The act has increased my knowledge of the tasks I perform. High scores indicated a strong positive correlation between the perceived level of implementation of the act and the employee's knowledge of the tasks.

b. I defined perceived organizational business performance as a measure of the degree to which an organization has achieved the predetermined business objectives based on the employees' perception of organizational performance metrics. I measured the perceived organizational business performance regarding the performance metrics such as the efficiency of work processes, cost performance, competitiveness, profitability, growth, and customer satisfaction (Agwu & Ogiriki, 2014; Akça et al., 2013; Bulak & Turkyilmaz, 2014; Chinomona, 2013; Dar et al., 2014; Hyoung & Byoung, 2014; Jang-Ho

& Khan-Pyo, 2013; Maley, 2014; Mohammad & Alaskari, 2014; Mousavi et al., 2015; Piza et al., 2016; Yusoff et al., 2016). The effect of the perceived level of implementation of the act on each component of perceived organizational business performance required the interval level of measurement (Norman, 2010). I measured the effect on a 5-point Likert scale, for example: 1: Strongly disagree to 5: Strongly agree in response to the question: The act has improved the cost performance of my current place of employment. Low scores indicated a strong negative correlation between the perceived level of implementation of the act and the organization's cost performance.

## Data Analysis Plan

I used the IBM SPSS Statistics 24 version software to carry out the statistical analysis of the data gathered from the responses to the survey. IBM developed the SPSS Statistics software for both descriptive and inferential statistical analysis. I used descriptive statistics to summarize the demographic data of the respondents to the survey. I presented a summary of the demographic data as background information characterizing the respondents to the survey.

I applied measures of central tendency such as the mode to the gender distribution of the survey respondents. I also applied the mode to the demographic data on the level of education attained by the survey respondents. I presented the range for applicable aspects of the demographic data such as the age and number of years of work experience of the survey respondents (Rea & Parker, 2014, p. 124). I also conducted the Cronbach's

coefficient of alpha test on the responses from the main study to reconfirm the internal consistency and reliability of the survey instrument (Raggi et al., 2014; Silva et al., 2015; Tavakol & Dennick, 2011; Villeneuve et al., 2015).

I used a correlation analysis and factor analysis to examine the correlation between the independent and dependent variables. I treated the 5-point Likert scale data as interval data by anchoring only the extreme ends of the choices on the scale with words so that the middle choices could be viewed as equal intervals between the extremes. By treating the Likert scale data as interval data, I was able to conduct parametric statistical analysis of the data (Norman, 2010).

I used the Pearson product-moment correlation to determine the correlation between employees' perceived level of implementation of the act, employees' perceived task performance, and perceived organizational business performance (Leedy & Ormrod, 2010, p. 273). In addition to the correlation analysis, I used the exploratory factor analysis to identify the most interrelated variables or underlying factors that supported the impact of the act on employees' perceived task performance and perceived organizational business performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010).

Researchers applied correlation analysis and factor analysis techniques to survey data captured at the interval level of measurement in research studies in diverse subjects and fields such as medicine, biological sciences, human development, psychology, behavioral science, nursing, financial services, geography, sociology, statistics, earth sciences, and technology (Bai & Dixon, 2014; Chang & Zelihic, 2014; Dong et al., 2014; Gardner & Neufeld, 2013; Georgiades et al., 2014; Gomez, Vance, & Gomez, 2014; Guo,

Wang, Liu, & Randall, 2014; Harris et al., 2013; Jenkins & Van Kerm, 2014; Loew, 2014; Martin, Hamshere, O'donovan, Rutter, & Thapar, 2014; Maruvka, Tang, & Michor, 2014; Miyawaki et al., 2015; Najafian & Sedighi, 2016; Nazir, Ichinomiya, Miyamura, Sekiya, & Kinosada, 2014; Revicki et al., 2014; Ryman et al., 2014; Sipes & Matson, 2014; Toua, de Kock, & Welzel, 2016; Vukovic, 2013; Wilmoth, Hanlon, Ng, & Bruner, 2014; Xi, Ren, Liang, Zhang, & Lin, 2014; Xu, Liu, Sharma, & Zhao, 2015; Yu et al., 2015; Zargar et al., 2015; Zhang, Noor, & Savalei, 2016; Zhang et al., 2015; Zhou, Zhang, Singh, & Xiao, 2015; Zimmermannova, Skalickova, & Siroky, 2016).

I used the outcome of the correlation analysis to accept or reject the null hypothesis (Leedy & Ormrod, 2010, p. 273). I used the outcome of the factor analysis to identify groups of interrelated variables that reflected the most important factors determining the impact of the act on employees' perceived task performance as an application of social cognitive theory. I also used the outcome of the factor analysis to identify the major underlying themes that underpinned the impact of the act on employees' perceived task performance and perceived organizational business performance to find potential areas of improvements in the drafting and implementation of the act (Leedy & Ormrod, 2010, p. 282; Norman, 2010).

I used only the fully completed survey responses in the statistical analysis. Likewise, I did not consider participants who chose not to complete the survey as part of the number of respondents to the survey. The research questions and hypotheses were the following:

1. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance?

   *H*o1: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

   *H*a1: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

2. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance?

   *H*o2: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

   *H*a2: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

I relied primarily on the collection of quantitative data for analyses to test the hypotheses in this study. I adopted the narrow-angle lens focus in the sense that I analyzed only a few selected variables to test the hypotheses. I selected one independent variable and two dependent variables to limit the study to a meaningful and manageable scope. The two dependent variables were part of the most important factors that affect an

organization's success (Agwu & Ogiriki, 2014; Cullen et al., 2014; Monday, 2015). Selecting more dependent variables for analysis would increase the complexity of the study and might complicate the interpretation of results. I used the outcomes of the statistical analysis to accept or reject the null hypothesis, and to identify the major underlying factors determining the impact of the act on employees' perceived task performance and perceived organizational business performance in the petroleum-producing companies in Nigeria. I reported and supported the outcomes of the statistical analysis with tables and figures in addition to the explanatory text on the outcomes of the investigation.

## Threats to Validity

### External Validity

The external validity of a research study is the extent of generalizability of the study results and the conclusions from the sample size to a wider population (Balnaves & Caputi, 2001, p. 89). Researchers enhance the external validity of a study by using a real life setting of the location or population to be studied (Balnaves & Caputi, 2001, p. 89; Leedy & Ormrod, 2010, p. 99). Researchers also enhance the external validity by using a representative sample size of the wider population for study, and by ensuring the ability of other researchers to replicate the research study in different contexts (Leedy & Ormrod, 2010, p. 100).

I addressed the adequacy of the respondents to represent the wider population of the employees of the petroleum-producing companies by calculating the sample size from the true population size of the study (Rea & Parker, 2014, p. 169). I also addressed the

issue of external validity and generalizability of the study outcomes by following up with the management of the selected petroleum-producing companies to ensure the distribution of the invitation email to all the business areas and employee roles of the petroleum-producing companies. The distribution of the invitation email to a wide and diverse population of the workers in the selected petroleum-producing companies validated the generalizability of the outcomes of the study to the entire petroleum-producing companies in the Nigerian oil and gas industry (Leedy & Ormrod, 2010, p. 100; Rea & Parker, 2014, p. 198).

In this research study, I enhanced the external validity of the survey outcomes by selecting the five major petroleum-producing companies in Nigeria as the location of the study. The full-time employees of the five major petroleum-producing companies were the target population of the study. After taking into account the best practices in the literature, I calculated a representative sample size of 372 employees for the study.

I designed the survey instrument to ensure clarity and full understanding of the questions to improve the replication of the research study using the same or similar instrument in different contexts, and to enhance the external validity of the study. I also designed the survey instrument to ensure adequacy and appropriateness to address the research questions. The survey questions were sufficiently diverse to cover all aspects of the impact of employees' perceived level of implementation of the act on employees' perceived task performance, and perceived organizational business performance.

**Internal Validity**

The internal validity of a research study is the extent to which researchers draw accurate conclusions about associations, correlations, or cause-and-effect relationships from the study design and the data collection mechanism (Balnaves & Caputi, 2001, p. 89; Leedy & Ormrod, 2010, p. 97). Researchers ensure the internal validity of a research study by taking precautions to eliminate other possible explanations for the observed results apart from the correlation between the variables under consideration. The issue of ensuring internal validity is a very important consideration for experimental studies. Internal validity is also an important consideration for nonexperimental studies in which other factors could explain the same observed results in the measured variables (Leedy & Ormrod, 2010, p. 98).

I ensured that I could draw accurate conclusions from the present study by constructing easily understandable survey questions to address only the possible correlation between the independent and dependent variables. I ensured that any other factors that could affect the outcome of the study or create ambiguity were not included or implied in the survey questions. I also ensured that the conclusions I drew from the statistical analysis reflected only the correlation between the variables under consideration in the study, and not any other factors that were not part of the scope of the current study.

**Construct Validity**

Construct validity is a measure of how well observations or measurement tools represent or measure the variable under investigation. Construct validity is the degree to

which the measured responses represent what the researcher aims to measure in the research study. Construct validity is also a measure of how well the constructs in the study are operationalized and how well the constructs represent the phenomenon being studied (Balnaves & Caputi, 2001, p. 89; Leedy & Ormrod, 2010, p. 92).

I addressed construct validity by writing the survey questions to clearly define the constructs and variables under investigation in the study. I conducted a pilot study to test the clarity and sufficiency of the survey instrument to address the research questions and the dependent variables under investigation. I finalized the survey instrument for application in the main study after the pilot study outcome showed that there was no confusion or ambiguity in the construct or variable meaning. I clearly defined the independent and dependent variables in common terms used in the petroleum industry to avoid misunderstanding and ambiguity of meaning, and to maximize the possibility of determining any correlation between the independent and dependent variables.

**Ethical Procedures**

I considered the ethical issues of participants' protection from harm, informed consent, participants' right to privacy, and honesty with professional colleagues in the present study (Leedy & Ormrod, 2010, p. 101). The nature of the present study and the data collection mechanism were completely harmless to the participants in the study. There was no direct application of any material intervention to any participants in the study. Furthermore, the survey had no element that might cause anxiety, fear, or any other physical or psychological harm to the respondents. I provided a participant consent form addressed to the respondents stating the purpose of the study and the role of the

respondents in the study. I included a statement in the participant consent form to ask the respondents for voluntary consent to participate in the study. I also stated in the participant consent form that there was no financial reward or any incentives for participating in the study.

I sought informed consent from the respondents by asking them to click on the provided buttons to accept to participate or decline to participate at the start of the survey. A participant's decision to participate by clicking on the *next* button took the participant to the survey while a decision not to participate by clicking on the *exit survey* button allowed the participant to exit the survey. I informed the respondents that they could stop and discontinue the survey at any point in the survey without any negative consequence. I excluded nonresponsive participants and incomplete survey responses from the demographic information and statistical analysis, respectively.

Another major ethical consideration related to the present research study was the participants' right to privacy. I addressed the anonymity of respondents by the complete exclusion of personal information from the survey design. The study report was devoid of any form of reference to personal data or data presented in such a way as to identify the respondent. I kept the nature of individual responses to the online survey strictly confidential. The survey data was stored on my personal laptop and on a secure external drive. Both devices required a password only known to me to access. I will store the data for 5 years and subsequently delete and erase the data using specialized software such as Eraser or CCleaner.

I adhered to the policy of being honest with professional colleagues who volunteered to participate in the research study. I provided at the start of the survey all the information required by the participants to understand the study and to make an informed decision to accept or decline to participate in the study. I informed the participants of the approval I received to conduct the research study from Walden University's IRB and provided the IRB approval number in the consent form. I also informed the participants that the role of the IRB is to ensure that researchers follow the highest ethical standards and regulatory guidelines in their research studies.

## Summary

I described the quantitative research design and descriptive correlational method that I selected for the study. The target population for the study was full-time employees of the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. The sample size for the study was 372 full-time employees of these five major petroleum-producing companies in Nigeria. The sample size was representative of the target population. I calculated the sample size based on the recommended best practices in the survey research literature (Rea & Parker, 2014, p. 169).

I designed a survey as the data collection instrument. I provided explanations on how I addressed the issues of external, internal, and construct validity in the study. I also provided explanations on the ethical issues pertinent to my study and how I addressed these ethical issues. I also designed a pilot study to test my survey instrument and to ensure that the instrument was appropriate for addressing the research questions.

For the data analyses, I selected measures of central tendency to summarize the demographic data of the study participants (Rea & Parker, 2014, p. 124). I treated the 5-point Likert scale data as interval data by anchoring only the extreme ends of the choices on the scale with words so that the middle choices could be viewed as equal intervals between the extremes, making the data amenable to parametric statistical analysis (Norman, 2010).

I selected the Pearson product-moment correlation to examine the correlation between the study variables of the employees' perception of the level of implementation of the act, employees' perceived task performance, and perceived organizational business performance (Leedy & Ormrod, 2010, p. 273). I selected the exploratory factor analysis to identify the most interrelated variables or underlying factors that supported the impact of the act on employees' perceived task performance and perceived organizational business performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010).

In Chapter 4, I provide the results of the pilot study, the outcome of the data collection exercise, and the results of the main study. I provide the results of testing hypotheses related to the research questions. I also include a summary of the chapter.

# Chapter 4: Results

## Introduction

The purpose of this descriptive correlational study was to examine the relationship between employees' perceived level of implementation of the act, employees' perceived task performance, and perceived organizational business performance in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (b) Chevron, (d) Total, and (e) Eni. The research questions and hypotheses raised were as follows:

1. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance?

   *H*o1: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

   *H*a1: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

2. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance?

   *H*o2: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

*H*a2: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

Chapter 4 contains the results of the pilot study and the outcome of the data collection exercise for the main study. The chapter also includes the results of the statistical analysis and how I used the results to test the hypotheses and to answer the research questions.

## Pilot Study

I conducted a pilot survey to assess the internal consistency and reliability of the survey instrument. The purpose of the pilot study was to test whether the respondents fully understood the survey questions and to identify and resolve any potential ambiguity in the construction of the survey questions prior to using the instrument in the main study. I conducted the pilot study using a smaller sample size of 20 full-time employees of Shell, one of the major petroleum-producing companies in the Nigerian petroleum industry.

I conducted the pilot study over a period of 10 days, against a plan of 7 days. I obtained the required number of 20 fully completed responses out of 27 submitted responses from full-time employees of Shell Nigeria. I obtained the required number of 20 fully completed responses over a period of 10 days against a plan of 7 days because the 10-day period included a weekend when some employees were off work and could not access the survey until the next work day. Appendix D contains the details of the 20 fully completed survey responses that I used in the pilot study.

I analyzed the demographic data of the 20 respondents in the pilot study. The results showed that the majority of the respondents (65%) were within the age range of 31-40 years old. Furthermore, 75% and 25% of the respondents were male and female, respectively. The data on the level of education of the respondents showed that 60% of the respondents had a master's degree while 35% had a bachelor's degree. No respondent reported an educational qualification outside of the specified range of options in the pilot survey.

The majority of the respondents (60%) were technical professionals, while 20% were in management roles in their current place of employment. Finally, the majority of the respondents (55%) had over 10 years of work experience. Table 2 shows the demographic characteristics of the 20 respondents in the pilot study.

Table 2

*Demographic Characteristics of the Respondents in the Pilot Study*

| Category | Number of respondents | % |
|---|---|---|
| Age range | | |
| 18-30 | 2 | 10 |
| 31-40 | 13 | 65 |
| 41-50 | 3 | 15 |
| Over 50 | 2 | 10 |
| Gender | | |
| Male | 15 | 75 |
| Female | 5 | 25 |
| Level of education | | |
| Polytechnic/Technical college | 0 | 0 |
| Bachelor's degree | 7 | 35 |
| Master's degree | 12 | 60 |
| Advanced graduate study or PhD | 1 | 5 |
| Others | 0 | 0 |
| Role in my current place of employment | | |
| Entry level | 1 | 5 |
| Technical professional | 12 | 60 |
| Business professional | 3 | 15 |
| Management role | 4 | 20 |
| Number of years of work experience | | |
| 0-5 | 3 | 15 |
| 5-10 | 6 | 30 |
| 10-15 | 6 | 30 |
| 15-20 | 2 | 10 |
| Over 20 | 3 | 15 |

In relation to the respondents' perception of how well the current place of employment had met the requirements of the act since its implementation in 2010, the majority of the respondents (70%) reported either a high or a very high level of compliance. No respondent reported a low or very low level of implementation of the act in their current place of employment. Figure 2 shows the responses of the respondents in the pilot study regarding their perception of the level of implementation of the act at their current place of employment.

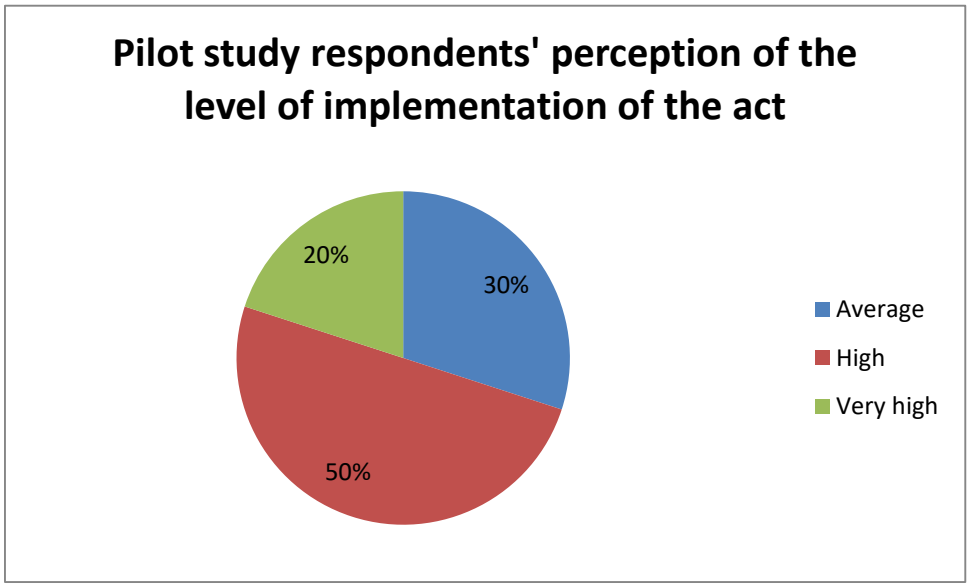



*Figure 2.* Pilot study respondents' perception of the level of implementation of the act in their current place of employment.

I conducted the Cronbach's coefficient of alpha test on the responses from the pilot study to test the internal consistency and reliability of the survey instrument. The first set of responses was related to the questions on the respondents' perception of the level of implementation of the act and its impact on their perceived task performance. The Cronbach's coefficient of alpha for the first set of questions was 0.91. The second set

of responses was related to the questions on the respondents' perception of the level of implementation of the act and its impact on their perceived organizational business performance. The Cronbach's coefficient of alpha for the second set of questions was 0.83.

Table 3 shows a summary of the Cronbach's coefficient of alpha results of the pilot study. Appendix E contains the SPSS results of the Cronbach's coefficient of alpha analysis of the pilot study.

Table 3

*Cronbach's Coefficient of Alpha Results of the Pilot Study*

| Category | Cronbach's coefficient of alpha | Number of questions | Number of respondents |
|---|---|---|---|
| Respondents' perception of the level of implementation of the act and its impact on their perceived task performance | 0.91 | 12 | 20 |
| Respondents' perception of the level of implementation of the act and its impact on their perceived organizational business performance | 0.83 | 6 | 20 |

The results of the statistical analysis showed that the Cronbach's coefficient of alpha is greater than 0.70 for the two sets of questions addressing the dependent variables. I used the results to confirm the internal consistency and reliability of the survey instrument in its current form for application in the main study (Raggi et al., 2014; Silva et al., 2015; Tavakol & Dennick, 2011; Villeneuve et al., 2015). I also used the

results of the pilot study to confirm the sufficiency of the survey instrument to address the research questions, as the survey questions were clear to the respondents and no suggestion was made by any respondent to improve the survey questions. Based on the outcome of the pilot study, I made no change to the survey instrument or the data analysis strategies of the present study.

## Data Collection

I conducted the main study over a period of 15 days against a plan of 30 days. I obtained the required number of 372 fully completed responses out of 404 submitted responses from the full-time employees of the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. The completion rate considering the fully completed 372 responses against the total number of 404 submitted responses was 92%. I closed the survey after I obtained the target number of 372 fully completed responses in 15 days. Appendix F contains the details of the 372 fully completed survey responses that I used in the main study.

I examined the demographic characteristics of the 372 respondents in the main study. The results showed that about half of the respondents (49%) were within the age range of 31-40 years old. Furthermore, 66% and 34% of the respondents were male and female, respectively. The information on the level of education of the respondents showed that the majority of the respondents (95%) had either a bachelor's degree or a master's degree. No respondent reported an educational qualification outside of the specified range of options in the main survey.

The majority of the respondents (63%) were technical professionals, while 17% were in management roles in their current place of employment. Finally, the majority of the respondents (67%) had over 10 years of work experience. On how well the respondent's current place of employment had met the requirements of the act since its implementation in 2010, the majority of the respondents (91%) reported either a high or a very high level of compliance.

I calculated the respondent sample size of 372 full-time employees out of a target population of 12,000 full-time employees of the five major petroleum-producing companies in Nigeria based on a recommendation in the survey research literature (Rea & Parker, 2014, p. 169). The calculated sample size was also similar to the sample size used in similar survey research studies in the literature (Ali & Zia-ur-Rehman, 2014; Leedy & Ormrod, 2010, p. 214; Nafei, 2013; Sahin & Uslu, 2014; Suliman & Harethi, 2013). The calculated sample size for the present study was proportional to the larger population and therefore ensured external validity. The calculated sample size was also sufficient to address the research questions on finding the correlation between the independent and dependent variables in the five major petroleum-producing companies in Nigeria.

I also ensured the external validity and generalizability of the study outcomes by following up with the management of the five major petroleum-producing companies to confirm the distribution of the invitation email to the qualified employees in all business areas and employee roles of the petroleum-producing companies. By confirming the distribution of the invitation email to a wide and diverse population of the workers in the

selected petroleum-producing companies, I validated the generalizability of the study outcomes to all petroleum-producing companies in the Nigerian oil and gas industry (Leedy & Ormrod, 2010, p. 100; Rea & Parker, 2014, p. 198).

There was no discrepancy between the data collection plan that I presented in Chapter 3 and the actual data collection exercise that I conducted in the main study. I obtained the required number of 372 fully completed responses from the target population of full-time employees of the five major petroleum-producing companies in Nigeria, specifically Shell, ExxonMobil, Chevron, Total, and Eni. I obtained the required number of 372 fully completed responses in 15 days against a plan of 30 days due to the distribution of the invitation email by the management of the selected petroleum-producing companies to a large pool of qualified employees.

I also obtained the required number of 372 fully completed responses in 15 days against a plan of 30 days due to the interest of the respondents in participating in the study by completing the survey. I downloaded the survey responses from the online survey database and deleted all uncompleted surveys to retain only the 372 fully completed survey responses. I conducted the statistical analysis and obtained results and findings that represented the target population of full-time employees of the five major petroleum-producing companies in Nigeria, specifically Shell, ExxonMobil, Chevron, Total, and Eni.

## Study Results

### Cronbach's Coefficient of Alpha Test

I conducted the Cronbach's coefficient of alpha test on the responses from the main study to reconfirm the internal consistency and reliability of the survey instrument. The first set of responses was related to the questions on the respondents' perception of the level of implementation of the act and its impact on their perceived task performance. The Cronbach's coefficient of alpha for the first set of questions was 0.92. The second set of responses was related to the questions on the respondents' perception of the level of implementation of the act and its impact on their perceived organizational business performance. The Cronbach's coefficient of alpha for the second set of questions was 0.75.

Table 4 shows a summary of the Cronbach's coefficient of alpha results of the main study. Appendix G contains the SPSS results of the Cronbach's coefficient of alpha analysis of the main study.

Table 4

*Cronbach's Coefficient of Alpha Results of the Main Study*

| Category | Cronbach's coefficient of alpha | Number of questions | Number of respondents |
|---|---|---|---|
| Respondents' perception of the level of implementation of the act and its impact on their perceived task performance | 0.92 | 12 | 372 |
| Respondents' perception of the level of implementation of the act and its impact on their perceived organizational business performance | 0.75 | 6 | 372 |

The results of the statistical analysis showed that the Cronbach's coefficient of alpha is greater than 0.70 for the two sets of questions addressing the dependent variables. I used the results to reconfirm the internal consistency and reliability of the survey instrument (Raggi et al., 2014; Silva et al., 2015; Tavakol & Dennick, 2011; Villeneuve et al., 2015). I also used the results to reconfirm the sufficiency of the survey instrument to address the research questions.

**Descriptive Statistics of the Respondents**

I analyzed the demographic data of the 372 respondents in the main study. The results showed that about half of the respondents (49%) were within the age range of 31-40 years old. Thirty-one percent of the respondents were within the age range of 41-50 years old. Eleven percent of the respondents were within the age range of 18-30 years

old, while 9% of the respondents were over 50 years old. Figure 3 shows the age range of the respondents in the main study.

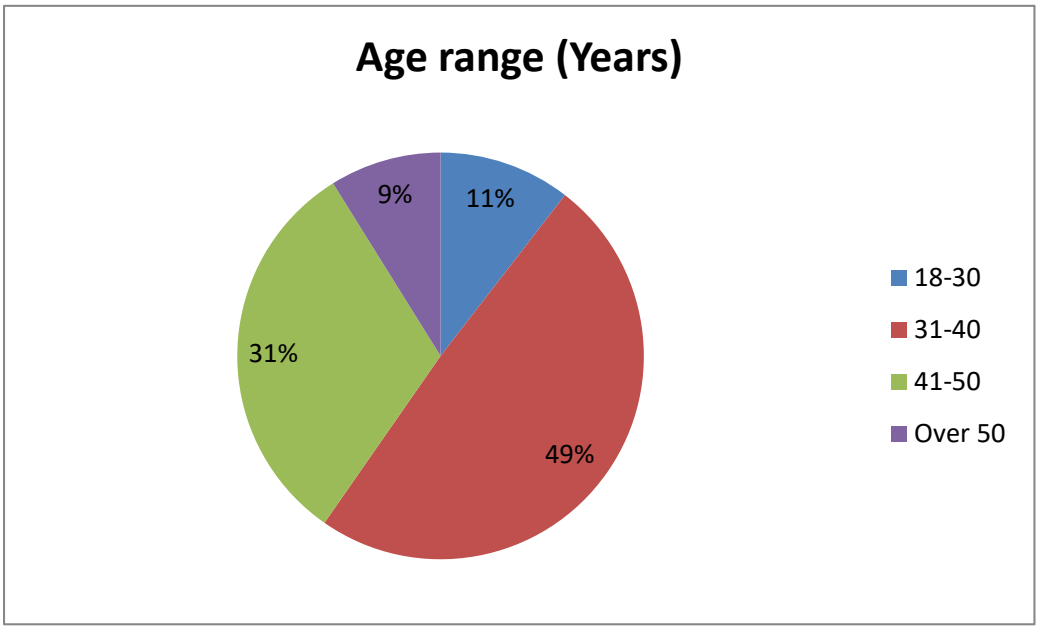



*Figure 3.* Age range of the respondents in the main study.

Furthermore, 245 of the respondents (66%) and 127 of the respondents (34%) were male and female, respectively. Figure 4 shows the gender distribution of the respondents in the main study.

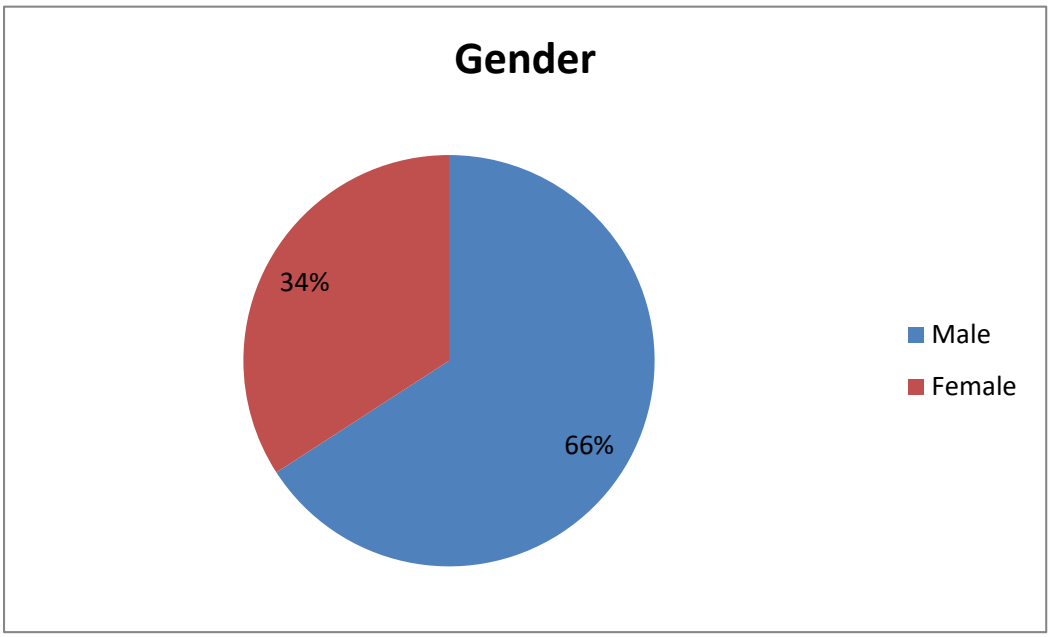



*Figure 4.* Gender distribution of the respondents in the main study.

The data on the level of education of the respondents showed that 54% of the respondents had a Bachelor's Degree while 41% had a Master's Degree. Four percent of the respondents had an Advanced Graduate Study or PhD Degree while only 1% had a Polytechnic/Technical College qualification. No respondent reported an educational qualification outside of the specified range of options in the main survey. Figure 5 shows the level of education of the respondents in the main survey.

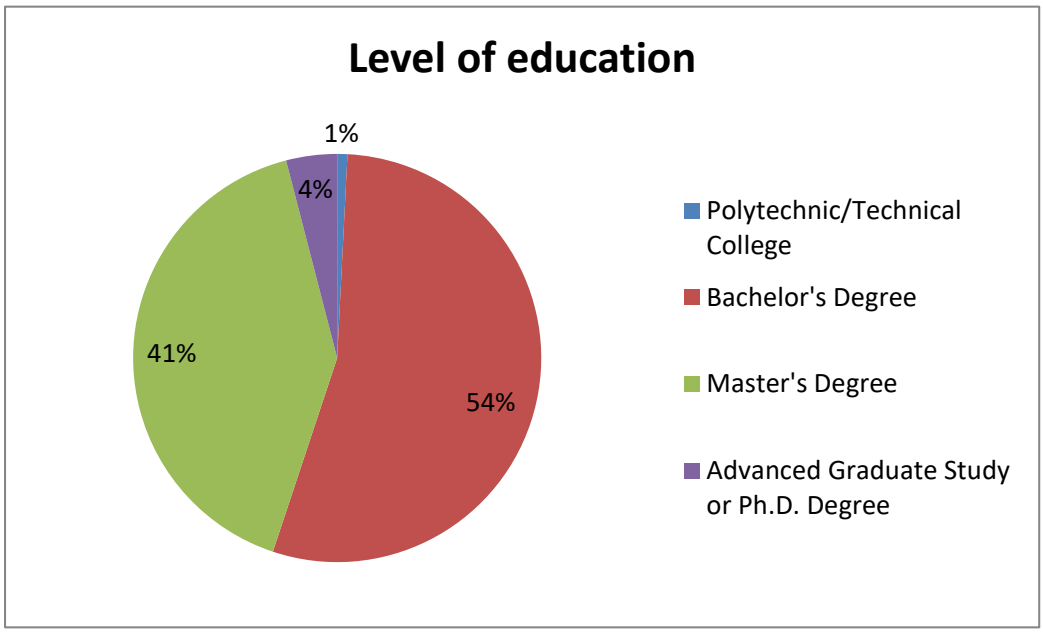



*Figure 5.* Level of education of the respondents in the main study.

The majority of the respondents (63%) were technical professionals while 17% were in management roles in their current place of employment. Fourteen percent of the respondents were business professionals while 6% were entry level employees. Figure 6 shows the distribution of the role of the respondents in their current place of employment.

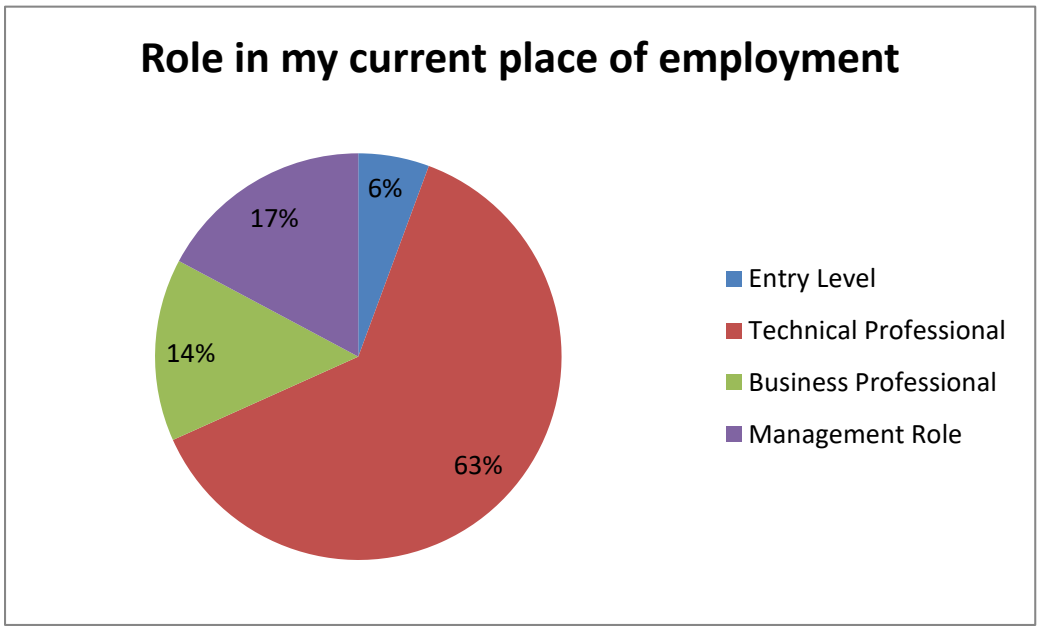



*Figure 6.* Role in the current place of employment of the respondents in the main study.

On the number of years of work experience of the respondents, 32% of the respondents had 10-15 years of work experience while 24% had 5-10 years of work experience. Twenty percent of the respondents had 15-20 years of work experience while 15% had over 20 years of work experience. Nine percent of the respondents had 0-5 years of work experience. Figure 7 shows the number of years of work experience of the respondents in the main study.

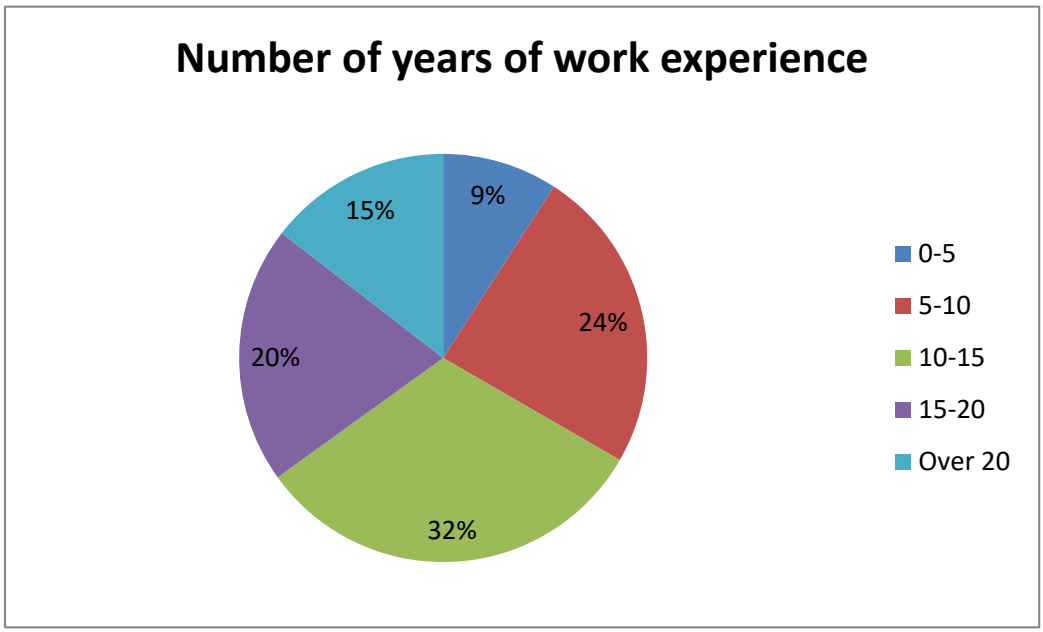



*Figure 7.* Number of years of work experience of the respondents in the main study.

On the respondents' perception of how well the current place of employment has met the requirements of the act since its implementation in 2010, 57% of the respondents reported a high level of compliance while 34% of the respondents reported a very high level of compliance. Eight percent of the respondents reported an average level of compliance while 1% of the respondents reported a low level of compliance. Figure 8 shows the response of the respondents in the main study regarding their perception of the level of implementation of the act at their current place of employment.

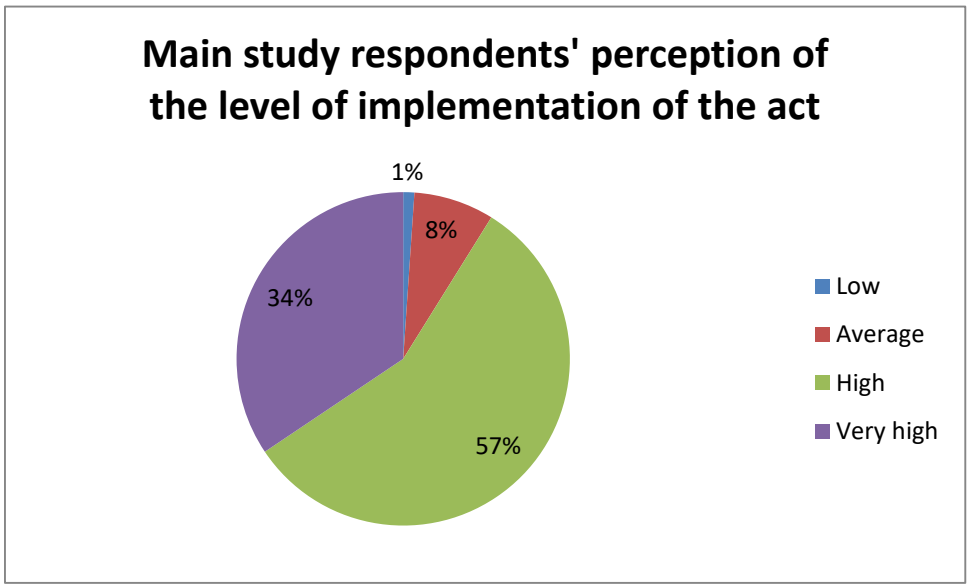



*Figure 8.* Main study respondents' perception of the level of implementation of the act in their current place of employment.

Among the predominant 67% of respondents with over 10 years of work experience, 95% of them reported their perception of how well their current place of employment has met the requirements of the act since its implementation in 2010 as either a high or a very high level of compliance. Also, among the main group of 63% technical professionals, 91% of them reported their perception of how well their current place of employment has met the requirements of the act since its implementation in 2010 as either a high or a very high level of compliance.

The reported perception of a high or a very high level of compliance among the largest groups of respondents indicated a clear understanding of the act and its implementation in the Nigerian petroleum industry. Table 5 shows the demographic characteristics of the 372 respondents in the main study.

Table 5

*Demographic Characteristics of the Respondents in the Main Study*

| Category | Number of respondents | % |
|---|---|---|
| Age range | | |
| 18-30 | 39 | 11 |
| 31-40 | 183 | 49 |
| 41-50 | 117 | 31 |
| Over 50 | 33 | 9 |
| Gender | | |
| Male | 245 | 66 |
| Female | 127 | 34 |
| Level of education | | |
| Polytechnic/Technical college | 3 | 1 |
| Bachelor's degree | 202 | 54 |
| Master's degree | 152 | 41 |
| Advanced graduate study or PhD | 15 | 4 |
| Others | 0 | 0 |
| Role in my current place of employment | | |
| Entry level | 21 | 6 |
| Technical professional | 233 | 63 |
| Business professional | 54 | 14 |
| Management role | 64 | 17 |
| Number of years of work experience | | |
| 0-5 | 34 | 9 |
| 5-10 | 90 | 24 |
| 10-15 | 118 | 32 |
| 15-20 | 76 | 20 |
| Over 20 | 54 | 15 |

**Evaluation of Statistical Assumptions**

The statistical assumptions I made in the present study relate to ensuring the sufficiency of the sample size to provide generalizable outcomes that were representative of the target population and the Nigerian petroleum industry. The equation I used for determining the sample size from a population (Rea & Parker, 2014, p. 169) was the following:

$$n = \frac{Z_{\alpha}^{2}[p(1-p)]N}{Z_{\alpha}^{2}[p(1-p)] + (N-1)ME_{p}^{2}}$$

where

$n$ = sample size

$Z_{\alpha}$ = standardized Z score for various levels of confidence, α

$p$ = established standard proportion/true population proportion

$N$ = true population size

$ME_p$ = margin of error regarding proportions

Therefore, for $Z_{\alpha} = 1.96$ ($\alpha = 95\%$), $p = 0.5$, $N = 12{,}000$ and $ME_p = \pm 5\%$, I calculated the sample size to be:

$n$ = 372 employees

I assumed a 95% level of confidence in this study. This assumption was in line with the general use of that level of confidence by researchers to balance the risk between Type I and Type II errors. *Type I error* is the error associated with making a decision based on the data from a sample. *Type II error* is the error derived from the researcher being too conservative and not taking action based on the results of a sample data (Rea & Parker, 2014, p. 166). In addition, broadening the confidence interval to 95% mitigated

the risk of making an error in the generalization of the study outcomes to the general population (Rea & Parker, 2014, p. 148). I used a 5% margin of error in line with the tendency of researchers to use a similar value in the design of surveys (Rea & Parker, 2014, p. 171).

I also assumed an established standard proportion (or true population proportion) of 50% ($p = 0.5$) based on the expectation that at least half of the general population were sufficiently knowledgeable about the perceived level of implementation of the act and its perceived impact on employee task performance and organizational business performance. This assumption was valid because all the petroleum-producing companies in Nigeria have implemented the act in their operations as required by law, and the employees have all been working within the context of the implemented act. The reported perception of a high or a very high level of compliance among the predominant groups of respondents further validated this assumption and indicated a clear understanding of the act and its implementation in the five major petroleum-producing companies in Nigeria.

The calculated sample size of 372 full-time employees was, therefore, sufficient to address the research questions on finding the correlation between the independent and dependent variables in the present study. The calculated sample size was sufficiently large enough to provide generalizable outcomes that were representative of the target population. The sample size calculation method that I used in the present study was consistent with the methods used in other survey research literature on similar studies (Ali & Zia-ur-Rehman, 2014; Leedy & Ormrod, 2010, p. 214; Nafei, 2013; Sahin & Uslu, 2014; Suliman & Harethi, 2013).

## Statistical Analysis Findings

**Introduction.** I used the IBM SPSS Statistics 24 version software to carry out the statistical analysis of the data gathered from the responses to the survey in the main study. I used a correlation analysis and factor analysis to examine the correlation between the independent and dependent variables. I treated the 5-point Likert scale data as interval data by anchoring only the extreme ends of the choices on the scale with words so that the middle choices could be viewed as equal intervals between the extremes. By treating the Likert scale data as interval data, I was able to conduct parametric statistical analysis of the data (Norman, 2010).

I used the Pearson product-moment correlation to determine the correlation between employees' perceived level of implementation of the act, employees' perceived task performance, and perceived organizational business performance (Leedy & Ormrod, 2010, p. 273). In addition to the correlation analysis, I used the exploratory factor analysis to identify the most interrelated variables or underlying factors that supported the impact of the act on employees' perceived task performance, and perceived organizational business performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010).

I chose to apply correlation analysis and factor analysis techniques to the survey data I gathered in my study because other researchers applied similar correlation analysis and factor analysis techniques to survey data captured at the interval level of measurement in several research studies (Bai & Dixon, 2014; Chang & Zelihic, 2014; Dong et al., 2014; Gardner & Neufeld, 2013; Georgiades et al., 2014; Gomez, Vance, & Gomez, 2014; Guo, Wang, Liu, & Randall, 2014; Harris et al., 2013; Jenkins & Van

Kerm, 2014; Loew, 2014; Martin, Hamshere, O'donovan, Rutter, & Thapar, 2014; Maruvka, Tang, & Michor, 2014; Miyawaki et al., 2015; Najafian & Sedighi, 2016; Nazir, Ichinomiya, Miyamura, Sekiya, & Kinosada, 2014; Revicki et al., 2014; Ryman et al., 2014; Sipes & Matson, 2014; Toua, de Kock, & Welzel, 2016; Vukovic, 2013; Wilmoth, Hanlon, Ng, & Bruner, 2014; Xi, Ren, Liang, Zhang, & Lin, 2014; Xu, Liu, Sharma, & Zhao, 2015; Yu et al., 2015; Zargar et al., 2015; Zhang, Noor, & Savalei, 2016; Zhang et al., 2015; Zhou, Zhang, Singh, & Xiao, 2015; Zimmermannova, Skalickova, & Siroky, 2016).

I used the outcome of the correlation analysis to accept or reject the null hypothesis for each research question (Leedy & Ormrod, 2010, p. 273). I used the outcome of the factor analysis to identify groups of interrelated variables that reflected the most important factors determining the impact of the act on employees' perceived task performance as an application of social cognitive theory. I also used the outcome of the factor analysis to identify the major underlying themes that underpinned the impact of the act on employees' perceived task performance and perceived organizational business performance to find potential areas of improvements in the drafting and implementation of the act (Leedy & Ormrod, 2010, p. 282; Norman, 2010). I used only the fully completed survey responses in the statistical analysis.

**First research question and hypotheses.** The first research question and hypotheses were: What is the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance?

*H*o1: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

*H*a1: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

I selected the Pearson product-moment correlation to examine the correlation between the independent variable of employees' perception of the level of implementation of the act and the dependent variable of employees' perceived task performance (Leedy & Ormrod, 2010, p.273). I computed a new combined variable by aggregating the scores of the first set of responses on the respondents' perception of the level of implementation of the act and its impact on their perceived task performance (Questions 2 to 13).

I computed a Pearson product-moment correlation coefficient to assess the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance. There was a positive correlation between the two variables, $r = 0.403$, $n = 372$, $p = 0.01$, which was statistically significant.

where

| | | |
|---|---|---|
| $r$ | = | Pearson product-moment correlation coefficient |
| $n$ | = | number of data points |
| $p$ | = | level of statistical significance |

There was a statistically significant, positive correlation between the respondents' perception of the level of implementation of the act and their perceived task performance. The result showed that a high level of perceived compliance with the requirements of the

act correlated with a high level of perceived task performance. Based on the outcome of the Pearson product-moment correlation, I rejected the null hypothesis for the first research question.

**Second research question and hypotheses.** The second research question and hypotheses were: What is the relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance?

*H*o2: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

*H*a2: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

I selected the Pearson product-moment correlation to examine the correlation between the independent variable of employees' perception of the level of implementation of the act and the dependent variable of employees' perceived organizational business performance (Leedy & Ormrod, 2010, p. 273). I computed a new combined variable by aggregating the scores of the second set of responses on the respondents' perception of the level of implementation of the act and its impact on their perceived organizational business performance (Questions 14 to 19). I computed a Pearson product-moment correlation coefficient to assess the relationship between the respondents' perception of the level of implementation of the act and their perceived

organizational business performance. There was a positive correlation between the two variables, $r = 0.244$, $n = 372$, $p = 0.01$, which was statistically significant.

There was a statistically significant, positive correlation between the respondents' perception of the level of implementation of the act and their perceived organizational business performance. The result showed that a high level of perceived compliance with the requirements of the act correlated with a high level of perceived organizational business performance. Based on the outcome of the Pearson product-moment correlation, I rejected the null hypothesis for the second research question.

I also computed a Pearson product-moment correlation coefficient to assess the relationship between the respondents' perceived task performance and their perceived organizational business performance. There was a positive correlation between the two variables, $r = 0.574$, $n = 372$, $p = 0.01$, which was statistically significant. The result showed that a high level of perceived task performance correlated with a high level of perceived organizational business performance. Table 6 shows the results of the computation of the Pearson product-moment correlation coefficients for the new combined dependent variables.

Table 6

*Pearson Product-Moment Correlation Coefficients Between the Independent and the Dependent Variables of the Main Study*

| Variable | Perception of the level of implementation of the act | Perceived task performance | Perceived organizational business performance |
|---|---|---|---|
| Perception of the level of implementation of the act | 1.000 | 0.403** | 0.244** |
| Perceived task performance | 0.403** | 1.000 | 0.574** |
| Perceived organizational business performance | 0.244** | 0.574** | 1.000 |

**Statistically significant ($p = 0.01$).

Additionally, I computed the Pearson product-moment correlation coefficients to assess the relationship between the respondents' perception of the level of implementation of the act and their responses to each question related to their perceived task performance (Questions 2 to 13). The outcomes were statistically significant, positive correlations between the respondents' perception of the level of implementation of the act and their perceived knowledge of the tasks, adaptability to the new way of working, cooperation with contractors/stakeholders, quality of work performed, problem-solving skills, decision-making skills, leadership skills, professional attitude, integrity, versatility, and motivation, which were statistically significant. The outcomes supported the rejection of the null hypothesis for the first research question.

I also computed the Pearson product-moment correlation coefficients to assess the relationship between the respondents' perception of the level of implementation of the act and their responses to each question related to their perceived organizational business

performance (Questions 14 to 19). The outcomes were statistically significant, positive correlations between the respondents' perception of the level of implementation of the act and their perceived efficiency of work processes, competitiveness, profitability, growth, and customer satisfaction, which were statistically significant. The outcomes supported the rejection of the null hypothesis for the second research question. Table 7 shows the results of the computation of the Pearson product-moment correlation coefficients for the subvariables of the dependent variables.

Table 7

*Pearson Product-Moment Correlation Coefficients Between the Independent Variable and the Subvariables of the Dependent Variables of the Main Study*

| Variable | Perception of the level of implementation of the act |
|---|---|
| Perceived task performance | |
| Knowledge of the tasks performed | 0.294** |
| Adaptability to the new way of working | 0.432** |
| Cooperation with contractors/stakeholders | 0.462** |
| Quality of work performed | 0.135** |
| Quantity of work performed | 0.093 |
| Problem-solving skills | 0.387** |
| Decision-making skills | 0.337** |
| Leadership skills | 0.232** |
| Professional attitude | 0.207** |
| Integrity | 0.312** |
| Versatility | 0.358** |
| Motivation | 0.167** |
| Perceived organizational business performance | |
| Efficiency of work processes | 0.110* |
| Cost performance | -0.066 |
| Competitiveness | 0.114* |
| Profitability | 0.189** |
| Growth | 0.252** |
| Customer satisfaction | 0.422** |

*Statistically significant ($p = 0.05$). **Statistically significant ($p = 0.01$).

The outcomes of the Pearson product-moment correlation that I computed to indicate statistically significant, positive correlations between the independent and the dependent variables in the present study were comparable to the results of survey research studies on employee and organizational performance (Ali & Zia-ur-Rehman, 2014; Bacha, 2014; Caillier, 2014; Cullen et al., 2014; Dar et al., 2014; Devonish, 2013; Nafei, 2013; Sahin & Uslu, 2014; Suliman & Harethi, 2013). The outcomes were also comparable to correlational studies in other research areas (Chang & Zelihic, 2014; Maruvka et al., 2014; Miyawaki et al., 2015; Najafian & Sedighi, 2016; Nazir et al., 2014; Xu et al., 2015). Appendix H contains the SPSS results of the Pearson product-moment correlation coefficients between the independent and the dependent variables of the main study.

**Exploratory factor analysis.** I selected the exploratory factor analysis to identify the most interrelated variables or underlying factors that supported the impact of the act on employees' perceived task performance and perceived organizational business performance (Leedy & Ormrod, 2010, p. 282; Norman, 2010). I conducted the exploratory factor analysis of the survey responses to identify groups of highly interconnected subvariables within the two dependent variables. I grouped these highly interconnected subvariables as the major underlying themes or factors.

I used the Kaiser-Meyer-Olkin measure of sampling adequacy, Bartlett's test of sphericity, and the Scree plot to identify the major factors within the dependent variables. I also used the principal axis factoring method of extraction and the Varimax with Kaiser Normalization rotation method to compute the factor matrix and the rotated factor matrix

for each major factor. The four major underlying factors that emerged from the exploratory factor analysis were the following:

1. Internal competence factor

   The results of the exploratory factors analysis of the responses to the questions related to the respondents' perceived task performance indicated the interrelationship among six of the 12 subvariables. I grouped the six subvariables as one major factor. The six subvariables were the respondents' perceived (a) problem-solving skills, (b) decision-making skills, (c) versatility, (d) integrity, (e) adaptability, and (f) cooperation with contractors/stakeholders. I called this factor the internal competence factor because the six subvariables relate to the respondents' ability to reactively and internally improve their competence as a result of the impact of the act.

2. External competence factor

   The results of the exploratory factors analysis of the responses to the questions related to the respondents' perceived task performance also indicated the interrelationship among another five of the 12 subvariables. I grouped the five subvariables as one major factor. The five subvariables were the respondents' perceived (a) work quality, (b) leadership skills, (c) motivation, (d) professional attitude, and (e) work quantity. I called this factor the external competence factor because the five subvariables relate to the respondents' ability to proactively and externally demonstrate the improvements in their competence as a result of the impact of the act.

3. Operational performance factor

   The results of the exploratory factors analysis of the responses to the questions related to the respondents' perceived organizational business performance indicated the interrelationship among four of the six subvariables. I grouped the four subvariables as one major factor. The four subvariables were the respondents' perceived (a) customer satisfaction, (b) growth, (c) competitiveness, and (d) the efficiency of work processes. I called this factor the operational performance factor because the four subvariables relate to the organization's operational performance as a result of the impact of the act.

4. Financial performance factor

   The results of the exploratory factors analysis of the responses to the questions related to the respondents' perceived organizational business performance also indicated the interrelationship between the other two of the six subvariables. I grouped the two subvariables as one major factor. The two subvariables were the respondents' perceived (a) cost performance and (b) profitability. I called this factor the financial performance factor because the two subvariables relate to the organization's financial performance as a result of the impact of the act.

The outcomes of the exploratory factor analysis indicated that the respondents' perception of the level of implementation of the act had a stronger impact on the internal competence factor and the operational performance factor. The major underlying themes or factors that I identified supported the correlation between the independent and the

dependent variables. Table 8 shows a summary of the exploratory factor analysis of the responses from the respondents in the main study.

Table 8

*Exploratory Factor Analysis of the Dependent Variables of the Main Study*

| Variable | Rotated factor loading | | Factor name |
|---|---|---|---|
| | Factor 1 | Factor 2 | |
| Perceived task performance | | | |
| Problem-solving skills | 0.840 | | Internal competence |
| Decision-making skills | 0.835 | | |
| Versatility | 0.828 | | |
| Integrity | 0.793 | | |
| Adaptability | 0.791 | | |
| Cooperation with contractors/stakeholders | 0.708 | | |
| Quality of work performed | | 0.706 | External competence |
| Leadership skills | | 0.661 | |
| Motivation | | 0.608 | |
| Professional attitude | | 0.602 | |
| Quantity of work performed | | 0.544 | |
| Perceived organizational business performance | | | |
| Customer satisfaction | 0.718 | | Operational performance |
| Growth | 0.689 | | |
| Competitiveness | 0.633 | | |
| Efficiency of work processes | 0.466 | | |
| Cost performance | | 0.913 | Financial performance |
| Profitability | | 0.460 | |

The process I used to identify the major underlying themes or factors within the dependent variables based on the exploratory factor analysis was consistent with the process used in similar research studies in which the researchers carried out exploratory factor analysis (Bai & Dixon, 2014; Dong et al., 2014; Gomez et al., 2014; Harris et al., 2013; Martin et al., 2014; Revicki et al., 2014; Ryman et al., 2014; Wilmoth et al., 2014;

Zhang et al., 2016). Appendix I contains the SPSS results of the exploratory factor analysis of the data of the main study.

## Summary

I presented the results of the pilot study and the outcome of the data collection exercise for the main study. The results of the pilot study indicated the internal consistency and reliability of the survey instrument in its current form for application in the main study. The results of the pilot study also indicated the sufficiency of the survey instrument to address the research questions as the survey questions were clear to the respondents and no suggestion was made by any respondent to improve the survey questions.

There was no discrepancy between the outcome of the data collection exercise for the main study and the data collection plan presented in Chapter 3. I obtained the required number of 372 fully completed responses in 15 days against a plan of 30 days due to the interest of the respondents in participating in the study by completing the survey and the distribution of the invitation email to a large pool of full-time employees of the selected petroleum-producing companies in Nigeria, specifically Shell, ExxonMobil, Chevron, Total, and Eni.

I presented the results of the main study that included the descriptive statistics of the respondents, the evaluation of statistical assumptions related to the sufficiency of the sample size, and the results of the statistical analysis of the data. I computed the Pearson product-moment correlation coefficients between the independent and the dependent variables to answer the research questions. The outcomes of the computation of the

Pearson product-moment correlation coefficients indicated positive, statistically significant correlations between the independent variable and each dependent variable. Consequently, I rejected the null hypotheses for both research questions.

I also conducted the exploratory factor analysis of the survey responses. I identified four major underlying factors of highly interconnected subvariables within the two dependent variables. In Chapter 5, I present interpretations of my findings, limitations of my study, recommendations for further research, and implications of the study outcomes regarding theory, practice, and positive social change.

# Chapter 5: Discussion, Conclusions, and Recommendations

## Introduction

The purpose of this descriptive correlational study was to examine the relationship between employees' perceived level of implementation of the act, employees' perceived task performance, and perceived organizational business performance in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. The independent variable was employees' perception of the level of implementation of the act. The dependent variables were employees' perceived task performance and perceived organizational business performance. The study was conducted to examine whether the five major petroleum-producing companies in Nigeria have benefitted from the act regarding employee and organizational performance.

I used a quantitative research design and descriptive correlational method in the study. I carried out correlation analysis and factor analysis of the responses to an email-conveyed online self-administered survey. The outcomes of the computation of the Pearson product-moment correlation coefficients indicated positive, statistically significant correlations between the independent variable and each dependent variable. I also identified four major underlying factors within the two dependent variables from the outcomes of the exploratory factor analysis. This chapter includes interpretations of my findings, limitations of my study, recommendations for further research, and implications of the study outcomes concerning theory, practice, and positive social change.

## Interpretation of Findings

### Contribution to the Body of Knowledge in the Research Literature

In Chapter 2, I reviewed the literature on the impact of the act in the Nigerian petroleum industry by several researchers and the IOCs. The literature I reviewed in Chapter 2 focused on the impact of the act on the socioeconomic and infrastructural development of Nigerian communities as a result of the increased spending on Nigerian-sourced goods and services by the IOCs (Ngoasong, 2014; Renouard & Lado, 2012). The literature I reviewed also focused on workforce development, host community investments, supplier capacity development, research and development, stakeholder engagement, and local technological capacity building (Chevron, 2012, 2013, 2014; Eni, 2015; ExxonMobil, 2015a, 2015b; Monday, 2015; Ngoasong, 2014; Ovadia, 2013; Renouard & Lado, 2012; Shell, 2013a, 2013b, 2014, 2015; Total, 2014).

A major gap in the literature is the absence of scholarly research on the impact of employees' perception of the level of implementation of the act on employees' perceived task performance and perceived organizational business performance in the petroleum-producing companies in Nigeria. The petroleum-producing companies have spent an average of $13 billion annually since 2010 on locally procured goods and services to meet the requirements of the act (Atsegbua, 2012; Nwapi, 2015a; Ovadia, 2013). There is no research study on the impact of the act on the performance of the petroleum-producing companies despite the significant annual expenditures of the companies. I used the outcomes of the present study to address the gap in the literature as follows.

**First research question.** The first research question and hypotheses were as follows: What is the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance?

*H*o1: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

*H*a1: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived task performance.

The Pearson product-moment correlation coefficient that I computed to assess the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance indicated a statistically significant, positive correlation ($r = 0.403$) between the two variables (Table 6). Consequently, I rejected the null hypothesis for the first research question. The result also showed that a high level of perceived compliance with the requirements of the act correlated with a high level of perceived task performance (Table 7). More specifically, the outcome of the exploratory factor analysis of the dependent variable revealed that the act had the most impact on the internal competence factor, which comprised the respondents' perceived problem-solving skills, decision-making skills, versatility, integrity, adaptability, and cooperation with contractors/stakeholders (Table 8).

The results of the statistical analysis indicated that the respondents adapted to the new way of working as a result of the act. The respondents also saw improvements in their ability to solve diverse work-related problems and make appropriate decisions, as well as improvements in their integrity and cooperation with contractors/stakeholders. To

a lesser extent, the results showed that the respondents saw improvements in their leadership skills, motivation, professional attitude, quality of work performed, and quantity of work performed.

The indicated improvement in the internal competence factor of the respondents in the main study is of significance to managers of the five major petroleum-producing companies in Nigeria. Managers of the five major petroleum-producing companies in Nigeria should leverage the act to develop the ability of their employees in the aspects of problem-solving skills, decision-making skills, versatility, integrity, adaptability, and cooperation with contractors/stakeholders. The improvement of the employees' ability in these aspects would benefit the organizations in terms of improved employee productivity and interpersonal relationships in the workplace.

**Second research question.** The second research question and hypotheses were as follows: What is the relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance?

*H*o2: There is not a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

*H*a2: There is a significant relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance.

The Pearson product-moment correlation coefficient that I computed to assess the relationship between the respondents' perception of the level of implementation of the act

and their perceived organizational business performance indicated a statistically significant, positive correlation ($r = 0.244$) between the two variables (Table 6). Consequently, I rejected the null hypothesis for the second research question. The result also showed that a high level of perceived compliance with the requirements of the act correlated with a high level of perceived organizational business performance (Table 7). More specifically, the outcome of the exploratory factor analysis of the dependent variable revealed that the act had the most impact on the operational performance factor, which comprised the respondents' perceived customer satisfaction, growth, competitiveness, and efficiency of work processes at their current place of work (Table 8).

The results of the statistical analysis indicated that the respondents saw improvements in the customer satisfaction level of the contractors/stakeholders that they interacted with in the course of their work. The results also indicated that the respondents saw improvements in the growth, market competitiveness, and efficiency of work processes at their current place of work. To a lesser extent, the results showed that the respondents saw a slight improvement in the profitability of their current place of work. The respondents also saw a worsening of the cost performance at their current place of work as a result of the act.

The indicated improvement in the operational performance factor of the respondents in the main study is of significance to managers of the five major petroleum-producing companies in Nigeria and the policy makers of the Nigerian government. Managers of the five major petroleum-producing companies in Nigeria and the policy

makers of the Nigerian government should leverage the act to improve the business interactions between the employees of the petroleum-producing companies and the employees of the indigenous firms seeking to do business with the petroleum-producing companies.

Managers of the five major petroleum-producing companies in Nigeria and the policy makers of the Nigerian government should encourage the development of the ability of the employees of the petroleum-producing companies and the indigenous firms in the aspects of contractor/stakeholder satisfaction and the efficiency of work processes. The improvement of the employees' ability in these aspects would benefit the organizations in terms of improved interpersonal relationships and better business interactions between contractors and the petroleum-producing companies. The improved business interactions would help the policy makers of the Nigerian government to achieve the aim of the act to boost local participation in the Nigerian petroleum industry.

The study outcomes also indicated a worsening of the cost performance of the five major petroleum-producing companies in Nigeria since the implementation of the act. Managers of the five major petroleum-producing companies in Nigeria should carry out a meticulous examination of their spending on Nigerian-sourced goods and services. The comprehensive examination of the spending patterns of the five major petroleum-producing companies in Nigeria could show areas for potential cost performance improvements in the procurement of Nigerian-sourced goods and services.

Additionally, I computed a Pearson product-moment correlation coefficient to assess the relationship between the respondents' perceived task performance and their

perceived organizational business performance. There was a statistically significant, positive correlation ($r = 0.574$) between the two dependent variables (Table 6). The result showed that a high level of perceived task performance correlated with a high level of perceived organizational business performance.

The result indicated that improvements in employee performance translate to improvements in organizational performance. Managers of the five major petroleum-producing companies in Nigeria should create the enabling environments to encourage improvements in employee task performance. Improvements in employee task performance would improve organizational performance and ensure business success. This outcome was in line with previous studies on the impact of employee performance on organizational performance (Cullen et al., 2014; Dar et al., 2014; Devonish, 2013; Suliman & Harethi, 2013).

Overall, the results of the statistical analysis indicated that there was a positive correlation between the respondents' perception of the level of implementation of the act and their perceived task performance and perceived organizational business performance. The outcomes of the present study are important to the IOCs because of their huge annual financial commitment to meeting the requirements of the act since 2010. The outcomes of the present study are potentially useful to Nigerian government officials in improving policy development and implementation processes in the local oil and gas industry.

**Contribution to the Application of Social Cognitive Theory**

Social cognitive theory was the theoretical foundation for this study (Bandura, 1989). An individual's societal interactions and experiences, societal practices, and the

environment influence the individual's behavior (Bandura, 1989, p. 2). Cognitive, environmental, and behavioral factors influence each other in a reciprocal and bidirectional manner to determine human behavior (Bandura, 1989, p. 2).

Personal qualities, social norms, and the process of competence development affect the behavior of an individual. Similarly, an individual's behavior has an effect on the cognitive or personal (P), behavioral (B), and environmental (E) aspects of the social system to which the individual belongs (Bandura, 1989, p. 2). The cognitive or personal factors influence the behavioral factors and vice versa (P-B), the behavioral factors influence the environmental factors and vice versa (B-E), and the environmental factors influence the cognitive or personal factors and vice versa (E-P). These bidirectional pairs of interactions operate in a triad that influences overall human behavior and development, although the level and timing of the influence of any one factor are not necessarily the same as those of the other factors (Bandura, 1989, pp. 2-3).

In the P-B bidirectional pair of influence, the individual's reflections, belief systems, feelings, aspirations, and expectations influence his or her behavior. Similarly, the individual's thought patterns and emotional responses influence the outcomes of his or her actions (Bandura, 1989, p. 3). In the E-P bidirectional pair of influence, the influences of the social environment where the individual belongs modify the individual's expectations, belief systems, emotions, and cognitive abilities through modeling, training, and other social stimulants (Bandura, 1989, pp. 3-4).

In the B-E bidirectional pair of influence, the individual's behavior modifies the conditions of the social environment. Consequently, the social conditions created by the

modification change the behavior of the individual and others within the environment in the course of their daily activities. The immediate environment is a system that can modify behavior by itself only if the mobility of the people within the environment is restricted (Bandura, 1989, p. 4).

The bidirectional nature of the influence between behavior and the environment makes people simultaneously products and inventors of their social environment. In the creation of situations and activities based on individual capabilities and personal preferences, people collectively influence their environment by creating new environments or preferentially selecting specific environments. Human behavioral development is related to the effects of activated environmental influences. The consequently activated environmental influences determine the aspects of human behavior that are further developed or cultivated (Bandura, 1989, pp. 4-6).

Several researchers have applied social cognitive theory in research studies similar to the present study. For example, Miller et al. (2014) conducted a study to evaluate employees' response to performance appraisal processes as situated cognitions and to propose intervention techniques to improve employee satisfaction with performance appraisal processes. Another example was a study to examine the impact of challenging on-the-job experiences on employee learning and development (Aryee & Chu, 2012). By examining subordinate-supervisor dyads in several service sector organizations, the researchers concluded that there is evidence in support of the benefits of challenging on-the-job experiences for employee learning and development (Aryee & Chu, 2012).

In another example of the application of social cognitive theory, Mailey and McAuley (2014) examined the effectiveness of a social cognitive theory-based intervention to increase physical activity among working mothers. The results showed short-term increases in physical activity because of the behavior-modifying qualities of the social cognitive theory-based intervention (Mailey & McAuley, 2014). Another application of social cognitive theory occurred in a study to develop effective methods for teaching piano concertos to young students. Piano instructors applied social cognitive theory to provide models and demonstrations of piano music and to enhance visual memories in students using sound effects, patterns, structure, imagery, and stories (Briscoe, 2014).

The results of a study to investigate whether social cognitive theory-framed interventions are effective for improving condom use and reducing sexually transmitted diseases showed that the theory predicted the relationship between condom use behavior and self-efficacy after the administration of social cognitive theory-framed interventions (Snead et al., 2014). Another study involved the application of social cognitive theory to demonstrate that the consumer's intentions to purchase cloud computing services are related to the consumer's cognitive perception of the ease of use, the usefulness, and the security of cloud computing technology (Ratten, 2015).

Another application of social cognitive theory was to demonstrate the effects of cultural intelligence on team knowledge sharing from the perspective of social cognition. The outcome of the study was that metacognitive, cognitive, and motivational cultural intelligence across several cultural and multinational contexts directly influence

knowledge sharing (Chen & Lin, 2013). The theory was also applied to demonstrate the effects of fundamental and supplemental interactions within the environment of virtual communities on users' knowledge sharing (Zhou et al., 2014).

Another study involved the application of social cognitive theory to investigate the change in physical activity of adolescent girls from low-income communities in response to the prevention of obesity. An outcome of the study was that self-efficacy was associated with physical activity over a 12 month period in the adolescent girls in line with the social cognitive theory (Dewar et al., 2013). Another application of social cognitive theory with Ajzen's theory of planned behavior was to examine the moderating role of self-identity in influencing the intentions of business students toward taking elective ethics courses. An outcome of the study was that social cognitive theory successfully predicted the relationship between the outcome expectancy and behavioral intentions (Cheng & Chu, 2014).

In another example, social cognitive theory was used to demonstrate that higher levels of perceived job satisfaction and organizational commitment relate to higher levels of perceived fit with the firm's ethical climate (Domino et al., 2015). A final example of the application of social cognitive theory occurred in a study to demonstrate that personal resources predict self-rated job performance through job resources and work engagement (Lorente et al., 2014). These research examples showed a wide range of applicability of social cognitive theory to examining the effects of environmental factors on human behavior in various contexts.

Social cognitive theory applied to the present study because an aspect of the theory explained the impact of a change in the environment on the behavior of the individuals operating in that environment. The specific change was a major change in the business environment due to the implemented act. In the present study, I examined the impact of employees' perception of the level of implementation of the act on employees' perceived task performance and perceived organizational business performance of the five major petroleum-producing companies in Nigeria.

The outcomes of the exploratory factor analysis of the dependent variable of perceived task performance indicated that the act had a significant impact on the internal competence factor, which comprised the respondents' perceived problem-solving skills, decision-making skills, versatility, integrity, adaptability, and cooperation with contractors/stakeholders (Table 8). The results indicated that the respondents adapted to the new way of working as a result of the act.

The respondents improved their ability to solve diverse work-related problems and make appropriate decisions. The respondents also improved their integrity and cooperation with the contractors/stakeholders. The outcomes indicated that the change in the business environment affected the behavior of the employees as a response to the change, and established the applicability of social cognitive theory to the present study.

## Limitations of the Study

The limitations that arose from the execution of the present study regarding the generalizability, validity, and reliability of the research design, research methodology, and the study outcomes were the following:

1. The selection of the Nigerian petroleum industry as the study location. The study location was a consequence of the study objective. The general population for the study was full-time employees of the petroleum-producing companies in Nigeria; therefore, the study location was a natural and unavoidable limitation of the study. The target population for the study was full-time employees of the five major petroleum-producing companies in Nigeria, specifically Shell, ExxonMobil, Chevron, Total, and Eni. Consequently, the generalizability of the study outcomes was limited to the Nigerian petroleum industry. I enhanced the external validity of my study by using a real life setting of the location and the population that I studied (Balnaves & Caputi, 2001, p. 89; Leedy & Ormrod, 2010, p. 99).
2. The use of a convenient sample population of full-time employees of petroleum-producing companies in Nigeria. Due to the objective of the study, the sample population of full-time employees of the petroleum-producing companies in Nigeria was selected as a convenient sample population for the study. The sample population was representative of the Nigerian petroleum industry because the petroleum-producing companies have the most employees and are the major financial contributors in the Nigerian petroleum industry regarding their significant level of capital investment, and annual spending (Atsegbua, 2012; Chevron, 2012, 2013, 2014; ExxonMobil 2015a, 2015b; Shell, 2013a, 2013b, 2014, 2015). I enhanced the external validity of my study with the use of a representative sample size of 372 full-time

employees of the five major petroleum-producing companies in Nigeria, specifically Shell, ExxonMobil, Chevron, Total, and Eni (Leedy & Ormrod, 2010, p. 100).

3. The selection of only two dependent variables, employees' perceived task performance, and perceived organizational business performance, for an assessment on the impact of the act in the Nigerian petroleum industry. The choice of assessing the impact of the act on only two dependent variables, employees' perceived task performance and perceived organizational business performance, was to limit the study to a manageable scope. The impact of the act in the Nigerian petroleum industry exceeds the two dependent variables of the present study.
4. The choice of an email-conveyed online self-administered survey as the data collection instrument. The choice of quantitative research design and survey instrument methodology made the analysis to find a correlation between the independent and dependent variables easier. This methodology excluded the possibility of capturing the contextual responses and facial expressions that could otherwise be captured through face-to-face interviews (Leedy & Ormrod, 2010, p. 188). I ensured the survey questions were clear and easy to understand to encourage open, complete, and honest answers from the participants, thus mitigating the limitation and ensuring the replicability of the research study in different contexts. This also ensured the internal validity of my study. I ensured the construct validity by testing the survey instrument in a

pilot study that confirmed the adequacy of the instrument for use in the main study (Balnaves & Caputi, 2001, p. 89; Leedy & Ormrod, 2010, p. 92). In addition, the completion of the online self-administered survey could be affected by time constraints and categorized questions that forced participants to choose from a limited range of responses. I designed a survey with a reasonable completion time of 20 minutes and stated the required time to complete the survey in the participant consent form prior to the start of the survey, thus mitigating the limitation. I avoided the use of categorized questions by giving the respondents a wide range of possible responses to each question, including the options not to answer or to opt out of the survey (Leedy & Ormrod, 2010, p. 215).

Apart from the limitations of the study that I have discussed above, there was no other limitation of the study that arose as a result of conducting the study. There was also no other limitation that arose from the data collection process. There was no nonresponse bias because I encouraged participation in the survey by explaining the potential benefits of the study in the invitation email and through follow-up calls (Leedy & Ormrod, 2010, p. 216; Rea & Parker, 2014, p. 195).

There was also no sampling or coverage bias because I ensured the sufficient distribution of the survey within the five major petroleum-producing companies and obtained the required 372 completed responses from the employees (Leedy & Ormrod, 2010, p. 215). I conducted the data collection process according to the data collection plan that I presented in Chapter 3. Finally, there was no limitation related to

trustworthiness of the study outcomes because I obtained the required number of 372 fully completed survey responses for statistical analysis.

## Recommendations

The four major strengths of my study were (a) the external validity that I ensured through the selection of the Nigerian petroleum industry as the study location and the use of a representative sample population of 372 full-time employees of the five major petroleum-producing companies in Nigeria, (b) the internal validity that I ensured through the design of a survey instrument that was clear, easy to understand, and easy to replicate, (c) the construct validity that I ensured through the testing of the survey instrument in a pilot study that confirmed the adequacy of the instrument, and (d) the absence of nonresponse and coverage bias in the execution of the study. The highlighted strengths improved the generalizability and validity of my study outcomes in the Nigeria petroleum industry.

Managers of the five major petroleum-producing companies in Nigeria and the policy makers of the Nigerian government need to pay attention to the outcomes of the present study. The outcomes of the present study have implications for employee performance in the Nigerian petroleum industry in the context of a change in the business environment due to the implementation of a government policy. The outcomes of the present study also have implications for the improvement of the design of the act and the implementation strategy to ensure the achievement of the objectives of the act.

I will distribute the research outcomes by email to the participants and companies that request to know the outcomes of the study. I will make a presentation of the study

outcomes in an appropriate forum if requested by other parties such as the policy makers of the Nigerian government. I will make the report of the present study available to anyone who requires the research study as a basis for further research or as a foundational material for understanding and improving policy formulation in the Nigerian petroleum industry.

Despite the strengths mentioned above, there are aspects of the study that could be improved. There are also aspects that could be further examined as a consequence of the study outcomes. The aspects that I recommend for future research fall under the theoretical, methodological, and practical recommendations described below.

**Theoretical Recommendation for Future Research**

Social cognitive theory was the theoretical framework for the present study. An individual's societal interactions, experiences, societal practices, and the environment influence the individual's behavior (Bandura, 1989, p. 2). The cognitive, environmental, and behavioral factors influence each other in a reciprocal and bidirectional manner to determine human behavior (Bandura, 1989, p. 2).

The specific aspect of social cognitive theory that I applied to the study was the impact of a change in the environment on the behavior of the individuals that interact with the changed environment (Bandura, 1989, p. 2). In the B-E bidirectional pair of influence, the individual's behavior modifies the conditions of the social environment. Consequently, the social conditions created by the modification change the behavior of the individual and others within the environment in the course of their daily activities.

The immediate environment is a system that can modify behavior by itself only if the mobility of the people within the environment is restricted (Bandura, 1989, p. 4).

The focus of future research studies could be a more detailed and intensive study of the impact of the act on personal qualities and professional competence of a few randomly selected employees within the Nigerian petroleum industry. The appropriate framework for such a study is the ecological model of human development (Bronfenbrenner, 1979). Human development is an evolving relation between the environment, the individual, and the interaction brought about by the individual's perception of the environment (Bronfenbrenner, 1979, p. 3). An intensive study over a longer period could reveal a more subtle impact of the act on personal qualities and professional competence.

**Methodological Recommendation for Future Research**

I used a quantitative research design and descriptive correlational method in the present study (Leedy & Ormrod, 2010, p. 108). I used an email-conveyed online self-administered survey to gather and analyze the data on the independent and dependent variables to determine the impact of the independent variable on the dependent variables (Leedy & Ormrod, 2010, pp. 183-184). One possible area of focus for future research studies is the examination of the impact of the act on oil and gas field development and production operations of one of the major petroleum-producing companies in Nigeria.

Such a study would enable managers of the selected petroleum-producing company to better understand the direct impact of the act on the aspects of organizational performance critical to their business success. The study could be a qualitative research

design and case study methodology. A case study is a qualitative research method in which the researcher seeks an in-depth exploratory or descriptive understanding of an organization, entity, or event through an analysis of various data sources such as a questionnaire, interviews, documents, and observations (Balnaves & Caputi, 2001, pp. 66-67; Leedy & Ormrod, 2010, p. 108; Miles, Huberman, & Saldana, 2014, pp. 28-30).

Another possible area of focus for future research studies is the examination of the impact of the act on contracting and procurement of Nigerian-sourced goods and services in one of the major petroleum-producing companies in Nigeria. Such a study would enable managers of the selected petroleum-producing company to better understand the direct impact of the act on the cost performance of the company. The study would enable managers of the selected petroleum-producing company to identify areas for possible cost performance improvement in the contracting and procurement process of the company. The study could also be a qualitative research design and case study methodology (Balnaves & Caputi, 2001, pp. 66-67; Leedy & Ormrod, 2010, p. 108; Miles et al., 2014, pp. 28-30).

**Practical Recommendations for Future Research**

The focus of the present study was the examination of the impact of employees' perception of the level of implementation of the act on employees' perceived task performance and perceived organizational business performance. The present study was limited to the general examination of the two dependent variables. One possible area of focus for future research studies is the detailed examination of the impact of the act on the identified major underlying factors, or the subvariables within the four major

underlying factors of the present study: (a) the internal competence, (b) external competence, (c) operational performance, and (d) financial performance factors (Table 8).

Another possible area of focus for future research studies is the investigation of the impact of the act on other aspects of employee and organizational performance as highlighted in the reviewed literature in Chapter 2. The aspects of employee performance that could be examined are time management, absenteeism and punctuality, and personal confidence (Ahmed et al., 2013; Mishra & Sarkar, 2013). The aspects of organizational performance that could be examined are product quality and environmental preservation (Akça et al., 2013; Bulak & Turkyilmaz, 2014; Maley, 2014; Vela-Jiménez et al., 2014).

Furthermore, a possible area of focus for future research studies is the examination of the impact of the act on the wider Nigerian petroleum industry. The current study was restricted in scope to the five major petroleum-producing companies in Nigeria. The focus of future research studies could be the examination of the impact of the act on employee and organizational performance of the other sectors of the petroleum industry such as the petroleum services sector, the mid-stream petroleum transportation, storage, and marketing sector, and the downstream petroleum refining and processing sector.

## Implications

The present study is distinctive because it focused on an underresearched aspect of the petroleum industry in Nigeria that is of significant performance and financial implications for Nigerian government officials and managers of the petroleum-producing

companies in Nigeria. The study has implications for the application of social cognitive theory to employee performance in the petroleum industry in Nigeria. The study also has implications for the wider Nigerian society, especially the local contractors that do business with the petroleum-producing companies and the host communities of the petroleum-producing companies.

**Implications for Positive Social Change**

The implications of the present study for positive social change in Nigeria covered the aspects of policy design and implementation, and societal development. The study outcomes have potential implications for positive social change through the identification of better local content policy design and implementation strategies to improve the indigenous participation and wealth redistribution in the Nigerian society. The study outcomes indicated that the act had a major impact on the internal competence factor of the respondents which comprised the problem-solving skills, decision-making skills, versatility, integrity, adaptability, and cooperation with contractors/stakeholders.

In the future, the policy makers for the Nigerian government should focus on improvements to the design and implementation strategies of the policy to enhance the internal competence of employees and other stakeholders in the petroleum industry, especially the aspect of cooperation with contractors that is important to the success of the act. The achievement of an enabling environment to boost local participation in the petroleum industry depends on the cooperation between managers and employees of the petroleum-producing companies and the local firms seeking to do business with the petroleum-producing companies.

Achieving the creation of businesses through improved cooperation and the efficiency of work processes between the petroleum-producing companies and the local firms has the potential to stimulate economic growth in the host communities of the petroleum-producing companies. Economic growth can be achieved through employment generation, increased commercial activities, and the advancement of local technological capacity development. This could contribute to wealth redistribution in the Nigerian society and help in achieving the aim of the act.

**Implications for Theory**

In this study, I examined the change in the performance of employees in a business environment because of a change in policy as an application of social cognitive theory (Bandura, 1989). Consequently, the study results contributed to the understanding of the applicability of social cognitive theory to the workplace in the Nigerian petroleum industry. The outcomes of the exploratory factor analysis of the dependent variable of the perceived task performance indicated that the act had a significant impact on the internal competence factor, which comprised the respondents' perceived problem-solving skills, decision-making skills, versatility, integrity, adaptability, and cooperation with contractors/stakeholders.

The results showed that the respondents adapted to the new way of working as a result of the act. The outcomes indicated that the change in the business environment affected the behavior of the employees as a response to the change, and established the applicability of social cognitive theory to the present study. The study outcomes,

therefore, contributed to the theoretical body of knowledge in the field of human behavior as a response to social and environmental factors.

**Implications for Practice**

The implications of the present study for practice in the petroleum-producing companies in Nigeria covered the aspects of employee performance, organizational performance, and the interrelationship between employee and organizational performance. The study outcomes showed that a high level of perceived task performance was correlated with a high level of perceived organizational business performance. The results indicated that improvements in employee performance translate to improvements in organizational performance in agreement with other studies on the impact of employee performance on organizational performance (Cullen et al., 2014; Dar et al., 2014; Devonish, 2013; Suliman & Harethi, 2013). The implication of this outcome for managers of the petroleum-producing companies is the need to ensure that employees are enabled and encouraged to perform at a high level of competence to effectively contribute to organizational performance and business success.

The study outcomes also indicated an improvement in the internal competence factor of the respondents in the main study. Managers of the five major petroleum-producing companies in Nigeria should leverage the act to develop the ability of their employees in the aspects of problem-solving skills, decision-making skills, versatility, integrity, adaptability, and cooperation with contractors/stakeholders. The improvement of employees' ability in these aspects would benefit the organizations in terms of improved employee productivity and interpersonal relationships in the workplace.

The study outcomes also indicated that the act had a major impact on the operational performance factor of the petroleum-producing companies. The operational performance factor comprised the customer satisfaction, growth, competitiveness, and the efficiency of work processes in the petroleum-producing companies. This outcome has major implications for organizational performance.

Managers of the petroleum-producing companies need to sustain the indicated improvements in customer satisfaction level, business growth, competitiveness in the local market, and the improved efficiency of work processes. Any effort to sustain the indicated improvement could help to boost business interactions with the local firms. A boost in business interactions could help to achieve the aim of the act in improving local participation and technological capacity development in the Nigerian petroleum industry.

Finally, the study outcomes indicated a worsening of the cost performance of the five major petroleum-producing companies in Nigeria since the implementation of the act in 2010. Managers of the five major petroleum-producing companies in Nigeria should carry out a comprehensive examination of their contracting and procurement process for obtaining Nigerian-sourced goods and services. The thorough examination of the contracting and procurement process of the five major petroleum-producing companies in Nigeria could show areas for possible cost performance improvements in the procurement of Nigerian-sourced goods and services.

## Conclusions

In this study, I have examined the impact of employees' perception of the level of implementation of the act on their perceived task performance and perceived

organizational business performance in the five major petroleum-producing companies in Nigeria: (a) Shell, (b) ExxonMobil, (c) Chevron, (d) Total, and (e) Eni. This study was necessary because there was a gap in the research literature on the impact of the act on employee and organizational performance in the Nigerian petroleum industry. The general management problem was that despite substantial spending by the petroleum-producing companies on local content development, there is limited research on the effects of the act on the companies' performance. The specific management problem was the need to determine the influence of the act on the employees' task performance and perceived organizational business performance in the petroleum-producing companies.

I examined whether or not the petroleum-producing companies in Nigeria have received commensurate benefits in improved employee and organizational performance relative to the increase in their annual spending to meet the requirements of the act (Atsegbua, 2012; Nwapi, 2015a). The research questions raised were the following:

1. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived task performance?
2. What is the relationship between the respondents' perception of the level of implementation of the act and their perceived organizational business performance?

The study results showed that the act had improved employees' internal competence factor and organizations' operational performance factor. The study outcomes indicated that managers need to empower employees to perform at a high level of competence to effectively contribute to organizational performance. The study

outcomes showed an opportunity for the policy makers of the Nigerian government and managers of the petroleum-producing companies to use the indicated improvements in the operational performance factor to improve indigenous participation and develop the local technological capacity for the Nigerian petroleum industry.

The study outcomes have potential implications for positive social change through better local content policy design and implementation in the Nigerian petroleum industry to unlock the benefits of the act to the technological and socio-economic development of Nigeria. Despite the positives discussed above, there is room for improvements. Researchers could focus on a comprehensive examination of the impact of the act on employees' internal competence factor in future studies.

# References

Abdulkabir, A. N., Sidique, S. F., Rahman, A. A., & Hook, L. S. (2015). Relationship among local content policy, indigenous oil firms' participation and job creation in Nigeria: A theoretical concept. *Journal of Developing Areas, 49*(4), 425-437. Retrieved from http://muse.jhu.edu/issue/32383

Agwu, M. O., & Emeti, C. I. (2014). Issues, challenges and prospects of small and medium scale enterprises (SMEs) in Port-Harcourt City, Nigeria. *European Journal of Sustainable Development, 3*(1), 101-114. doi:10.14207/ejsd.2014.v3n1p101

Agwu, M. O., & Ogiriki, T. (2014). Human resource development and organizational performance in the Nigeria Liquefied Natural Gas Company Limited, Bonny. *Journal of Management and Sustainability, 4*(4), 134-146. doi:10.5539/jms.v4n4p134

Ahmed, I., Sultana, I., Paul, S. K., & Azeem, A. (2013). Employee performance evaluation: A fuzzy approach. *International Journal of Productivity and Performance Management, 62*(7), 718-734. doi:10.1108/IJPPM-01-2013-001

Akça, Y., Esen, S., & Özer, G. (2013). The effects of education on enterprise resource planning implementation success and perceived organizational performance. *International Business Research, 6*(5), 168-179. doi:10.5539/ibr.v6n5p168

Ali, N., & Zia-ur-Rehman, M. (2014). Impact of job design on employee performance, mediating role of job satisfaction: A study of FMCG's sector in Pakistan. *International Journal of Business and Management, 9*(2), 70-79.

doi:10.5539/ijbm.v9n2p70

Arthur, P., & Arthur, E. (2014). Local content and private sector participation in Ghana's oil industry: An economic and strategic imperative. *Africa Today, 61*(2), 56-77. Retrieved from https://www.jstor.org/journal/africatoday.61.issue-2

Aryee, S., & Chu, C. L. (2012). Antecedents and outcomes of challenging job experiences: A social cognitive perspective. *Human Performance, 25*(3), 215-234. doi:10.1080/08959285.2012.684082

Atsegbua, L. A. (2012). The Nigerian Oil and Gas Industry Content Development Act 2010: An examination of its regulatory framework. *OPEC Energy Review, 36*(4), 479-494. doi:10.1111/j.1753-0237.2012.00225.x

Ayers, R. S. (2013). Building goal alignment in federal agencies' performance appraisal programs. *Public Personnel Management, 42*(4), 495-520. doi:10.1177/0091026013496077

Ayers, R. S. (2015). Aligning individual and organizational performance: Goal alignment in federal government agency performance appraisal programs. *Public Personnel Management, 44*(2), 169-191. doi:10.1177/0091026015575178

Bacha, E. (2014). The relationship between transformational leadership, task performance and job characteristics. *Journal of Management Development, 33*(4), 410-420. doi:10.1108/JMD-02-2013-0025

Bai, M., & Dixon, J. K. (2014). Exploratory factor analysis of the 12-item Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale in people newly diagnosed with advanced cancer. *Journal of Nursing Measurement, 22*(3),

404-420. doi:10.1891/1061-3749.22.3.404

Balnaves, M., & Caputi, P. (2001). *Introduction to quantitative research methods: An investigative approach*. Los Angeles, CA: Sage.

Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development. Six theories of child development* (Vol. 6, pp. 1-85). Greenwich, CT: JAI Press.

Bernard, H. R. (2013). *Social research methods: Qualitative and quantitative approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Blazovich, J. L. (2013). Team identity and performance-based compensation effects on performance. *Team Performance Management, 19*(3), 153-184. doi:10.1108/TPM-11-2012-0035

Briscoe, D. (2014). Piano concertos, children, and social cognitive theory. *Canadian Music Educator, 55*(3), 22-26. Retrieved from http://cmea.ca/

Bronfenbrenner, U. (1979). *The ecology of human development.* Cambridge, MA: Harvard University Press.

Bulak, M. E., & Turkyilmaz, A. (2014). Performance assessment of manufacturing SMEs: A frontier approach. *Industrial Management & Data Systems, 114*(5), 797-816. doi:10.1108/IMDS-11-2013-0475

Caillier, J. G. (2014). Toward a better understanding of the relationship between transformational leadership, public service motivation, mission valence, and employee performance: A preliminary study. *Public Personnel Management, 43*(2), 218-239. doi:10.1177/0091026014528478

Campbell, J. W. (2015). Identification and performance management: An assessment of change-oriented behavior in public organizations. *Public Personnel Management, 44*(1), 46-69. doi:10.1177/0091026014549473

Chang, L., & Zelihic, M. (2014). Critical factors associated with relationship conflicts and group atmosphere among Taiwanese adolescents. *Quality and Quantity, 48*(6), 3415-3432. doi:10.1007/s11135-013-9964-8

Chen, M., & Lin, C. (2013). Assessing the effects of cultural intelligence on team knowledge sharing from a socio-cognitive perspective. *Human Resource Management, 52*(5), 675-695. doi:10.1002/hrm.21558

Cheng, P., & Chu, M. (2014). Behavioral factors affecting students' intentions to enroll in business ethics courses: A comparison of the theory of planned behavior and social cognitive theory using self-identity as a moderator. *Journal of Business Ethics, 124*(1), 35-46. doi:10.1007/s10551-013-1858-0

Chevron. (2012). 2012 Corporate responsibility report. Chevron in Nigeria. Retrieved from http://www.chevron.com/documents/pdf/2012_NigeriaCR_Report.pdf

Chevron. (2013). 2013 Corporate responsibility report. Chevron in Nigeria. Retrieved from http://www.chevron.com/Documents/Pdf/2013_NigeriaCR_Report.pdf

Chevron. (2014). 2014 Corporate responsibility report highlights. Retrieved from http://www.chevron.com/documents/pdf/corporateresponsibility/Chevron_CR_Report_2014.pdf

Chevron. (2015). Nigeria fact sheet. Retrieved from http://www.chevron.com/documents/pdf/nigeriafactsheet.pdf

Chinomona, R. (2013). Business owner's expertise, employee skills training and business performance: A small business perspective. *Journal of Applied Business Research, 29*(6), 1883-1896. Retrieved from http://www.cluteinstitute.com/journals/journal-of-applied-business-research-jabr/

Cullen, K. L., Edwards, B. D., Casper, W. C., & Gue, K. R. (2014). Employees' adaptability and perceptions of change-related uncertainty: Implications for perceived organizational support, job satisfaction, and performance. *Journal of Business and Psychology, 29*(2), 269-280. doi:10.1007/s10869-013-9312-y

Dar, A. T., Bashir, M., Ghazanfar, F., & Abrar, M. (2014). Mediating role of employee motivation in relationship to post-selection HRM practices and organizational performance. *International Review of Management and Marketing, 4*(3), 224-238. Retrieved from http://www.econjournals.com/index.php/irmm

Devonish, D. (2013). Workplace bullying, employee performance and behaviors. *Employee Relations, 35*(6), 630-647. doi:10.1108/ER-01-2013-0004

Dewar, D. L., Plotnikoff, R. C., Morgan, P. J., Okely, A. D., Costigan, S. A., & Lubans, D. R. (2013). Testing social-cognitive theory to explain physical activity change in adolescent girls from low-income communities. *Research Quarterly for Exercise and Sport, 84*(4), 483-491. doi:10.1080/02701367.2013.842454

Domino, M., Wingreen, S., & Blanton, J. (2015). Social cognitive theory: The antecedents and effects of ethical climate fit on organizational attitudes of corporate accounting professionals-A reflection of client narcissism and fraud attitude risk. *Journal of Business Ethics, 131*(2), 453-467. doi:10.1007/s10551-

014-2210-z

Dong, G., Qian, Z., Fu, Q., Wang, J., Trevathan, E., Ma, W., . . . Simckes, M. (2014). A multiple indicators multiple cause (MIMIC) model of respiratory health and household factors in Chinese children: The seven northeastern cities (SNEC) study. *Maternal and Child Health Journal, 18*(1), 129-137. doi:10.1007/s10995-013-1245-6

Donovan, J. J., Dwight, S. A., & Schneider, D. (2014). The impact of applicant faking on selection measures, hiring decisions, and employee performance. *Journal of Business and Psychology, 29*(3), 479-493. doi:10.1007/s10869-013-9318-5

Eni. (2015). Eni local content. Retrieved from http://www.eni.com/en_IT/sustainability/communities/local-content/local-content.shtml

ExxonMobil. (2015). Capacity development initiatives. National content. Retrieved from http://corporate.exxonmobil.com/en/company/worldwide-operations/locations/nigeria/community/development-initiatives

ExxonMobil. (2015). ExxonMobil in Nigeria. Retrieved from http://www.exxonmobil.com/Nigeria-English/PA/news_lagos_110214.aspx

Farahani, S., & Yarahmadi, F. (2015). Investigating the relationship between organizational objectives' transparency and employees' performance. *European Online Journal of Natural and Social Sciences, 4*(1), 853-862. Retrieved from http://european-science.com/eojnss/issue/archive

Frankfort-Nachmias, C., Nachmias, D., & DeWaard, J. (2008). *Research methods in the*

*social sciences* (7th ed.). New York, NY: Worth Publishers.

Gardner, R. C., & Neufeld, R. W. J. (2013). What the correlation coefficient really tells us about the individual. *Canadian Journal of Behavioural Science, 45*(4), 313-319. doi:10.1037/a0033342

Georgiades, S., Boyle, M., Szatmari, P., Hanna, S., Duku, E., Zwaigenbaum, L., . . . Thompson, A. (2014). Modeling the phenotypic architecture of autism symptoms from time of diagnosis to age 6. *Journal of Autism and Developmental Disorders, 44*(12), 3045-3055. doi:10.1007/s10803-014-2167-x

Goddy, O. I., & Odivwri, J. E. (2014). Impact of human capital development on workers productivity in Nigeria public sector. *Social Work Chronicle, 3*(1/2), 34-47. Retrieved from http://www.i-scholar.in/index.php/swc/article/view/60219

Gomez, R., Vance, A., & Gomez, R. M. (2014). The factor structure of anxiety and depressive disorders in a sample of clinic-referred adolescents. *Journal of Abnormal Child Psychology, 42*(2), 321-332. doi:10.1007/s10802-013-9787-z

Guo, G., Wang, L., Liu, H., & Randall, T. (2014). Genomic assortative mating in marriages in the United States. *PLoS One, 9*(11), 1-14. doi:10.1371/journal.pone.0112322

Harris, K., Dawson, J., Doll, H., Field, R. E., Murray, D. W., Fitzpatrick, R., . . . Beard, D. J. (2013). Can pain and function be distinguished in the Oxford Knee Score in a meaningful way? An exploratory and confirmatory factor analysis. *Quality of Life Research, 22*(9), 2561-2568. doi:10.1007/s11136-013-0393-x

Hassan, A., & Kouhy, R. (2015). From environmentalism to corporate environmental

accountability in the Nigerian petroleum industry. *International Journal of Energy Sector Management, 9*(2), 204-226. doi:10.1108/IJESM-05-2014-0008

Humborstad, S. I. W., Nerstad, C. G. L., & Dysvik, A. (2014). Empowering leadership, employee goal orientations and work performance. *Personnel Review, 43*(2), 246-271. doi:10.1108/PR-01-2012-0008

Hyoung, K. M., & Byoung, K. C. (2014). How an organization's ethical climate contributes to customer satisfaction and financial performance. *European Journal of Innovation Management, 17*(1), 85-106. doi:10.1108/EJIM-03-2013-0020

Idris, M., & Salisu, S. J. (2016). Corruption and infrastructural development in Nigeria. *International Journal of Arts & Sciences, 9*(1), 135-145. Retrieved from http://www.internationaljournal.org/

Ikharehon, J. I. (2014). Small and medium scale industries and economic development in Nigeria. *Indian Journal of Commerce and Management Studies, 5*(3), 29-33. Retrieved from http://www.scholarshub.net/ijcms.html

Ingwe, R. (2015). Illegal oil bunkering, violence and criminal offences in Nigeria's territorial waters and the Niger Delta environs: Proposing extension of informed policymaking. *Informatica Economică, 19*(1), 77-86. doi:10.12948/issn14531305/19.1.2015.07

International Gas Union. (2015). 2012-2015 Triennium work reports. Local content strategies in the oil and gas sector: How to maximise benefits to host communities. Retrieved from http://www.clingendaelenergy.com/inc/upload/files/IGU-

2015_Local_Content_TF3_IGU_Final_May_2015.pdf

International Petroleum Industry Environmental Conservation Association, Task Force on Local Content. (2011). Local content strategy. A guidance document for the oil and gas industry. Retrieved from http://www.ipieca.org/publication/local-content-strategy-guidance-document-oil-and-gas-industry

Ismail, T. (2015). Cultural control, creativity, social capital and organizational performance: Empirical study of small to medium sized enterprises (SME) in Indonesia. *International Journal of Entrepreneurship, 19,* 60-73. Retrieved from http://www.alliedacademies.org/international-journal-of-entrepreneurship/

Jacobs, G., Belschak, F. D., & Den Hartog, D. N. (2014). (Un)ethical behavior and performance appraisal: The role of affect, support, and organizational justice. *Journal of Business Ethics, 121*(1), 63-76. doi:10.1007/s10551-013-1687-1

Jang-Ho, C., & Khan-Pyo, L. (2013). Effects of employees' perceptions on the relationship between HR practices and firm performance for Korean firms. *Personnel Review, 42*(5), 573-594. doi:10.1108/PR-12-2011-0176

Jenkins, S. P., & Van Kerm, P. (2014). The relationship between EU indicators of persistent and current poverty. *Social Indicators Research, 116*(2), 611-638. doi:10.1007/s11205-013-0282-2

Kanayo, O., Kizito, E. U., & Udefuna, P. (2013). The challenges and implications of sustainable development in Africa: Policy options for Nigeria. *Journal of Economic Cooperation & Development, 34*(4), 77-111. Retrieved from http://www.sesrtcic.org/publications-jecd.php

Katamba, A. S., & Salman, A. A. (2014). An assessment of the levels of job motivation and satisfaction as predictors of job performance of library personnel in Nigerian universities. *Journal of Balkan Libraries Union, 2*(2), 26-33. doi:10.16918/bluj.3477

Khan, S. I. (2015). Does affective commitment positively predict employee performance? Evidence from the banking industry of Bangladesh. *Journal of Developing Areas, 49*(6), 429-439. Retrieved from http://muse.jhu.edu/issue/32212

Laihonen, H., Jääskeläinen, A., & Pekkola, S. (2014). Measuring performance of a service system - from organizations to customer-perceived performance. *Measuring Business Excellence, 18*(3), 73-86. doi:10.1108/MBE-08-2013-0045

Leedy, P. D., & Ormrod, J. E. (2010). *Practical research: Planning and design* (9th ed.). Boston, MA: Pearson.

Loew, A. (2014). Terrestrial satellite records for climate studies: How long is long enough? A test case for the Sahel. *Theoretical and Applied Climatology, 115*(3), 427-440. doi:10.1007/s00704-013-0880-6

Lorente, L., Salanova, M., Martínez, I. M., & Vera, M. (2014). How personal resources predict work engagement and self-rated performance among construction workers: A social cognitive perspective. *International Journal of Psychology, 49*(3), 200-207. doi:10.1002/ijop.12049

Mailey, E. L., & McAuley, E. (2014). Impact of a brief intervention on physical activity and social cognitive determinants among working mothers: A randomized trial. *Journal of Behavioral Medicine, 37*(2), 343-355. doi:10.1007/s10865-013-9492-y

Maley, J. (2014). Sustainability: The missing element in performance management. *Asia-Pacific Journal of Business Administration, 6*(3), 190-205. doi:10.1108/APJBA-03-2014-0040

Martin, J., Hamshere, M. L., O'donovan, M. C., Rutter, M., & Thapar, A. (2014). Factor structure of autistic traits in children with ADHD. *Journal of Autism and Developmental Disorders, 44*(1), 204-215. doi:10.1007/s10803-013-1865-0

Maruvka, Y. E., Tang, M., & Michor, F. (2014). On the validity of using increases in 5-year survival rates to measure success in the fight against cancer. *PLoS One, 9*(7), 1-7. doi:10.1371/journal.pone.0083100

Mendonça, R. W., & de Oliveira, L. G. (2013). Local content policy in the Brazilian oil and gas sectoral system of innovation. *Latin American Business Review, 14*(3/4), 271-287. doi:10.1080/10978526.2013.833477

Mensah, J. K. (2015). A "coalesced framework" of talent management and employee performance. *International Journal of Productivity and Performance Management, 64*(4), 544-566. doi:10.1108/IJPPM-07-2014-0100

Miles, M. B., Huberman, M. A., & Saldana, J. (2014). *Qualitative data analysis*. (3rd ed.). Thousand Oaks, CA: Sage.

Miller, J. S., Verbos, A. K., & Goswami, A. (2014). Employee social cognition and performance evaluation process reactions. *Personnel Review, 43*(4), 515-535. doi:10.1108/PR-01-2011-0011

Mishra, R. K., & Sarkar, S. (2013). MOU system: Enhancing employee performance in Indian CPSEs. *Journal of Strategic Human Resource Management, 2*(3), 20-30.

Retrieved from http://www.publishingindia.com/jshrm/32/238/2013/

Miyawaki, Y., Shimizu, Y., Uchiumi, K., Asou, K., Murakado, N., Kuroda, K., . . . Ishii, H. (2015). Reliability and validity of a shortened version of an instrument for diabetes self-care agency. *Journal of Nursing Measurement, 23*(2), 326-335. doi: 10.1891/1061-3749.23.2.326

Mohammad, M. A., & Alaskari, O. (2014). Development of assessment methodology for improving performance in SME's. *International Journal of Productivity and Performance Management, 63*(4), 477-498. doi:10.1108/IJPPM-06-2013-0108

Monday, J. U. (2015). Local content policy, human capital development and sustainable business performance in the Nigerian oil and gas industry. *Journal of Management and Sustainability, 5*(1), 75-83. doi:10.5539/jms.v5n1p75

Mousavi, S. A., Hosseini, S. Y., & Hassanpour, N. (2015). On the effects of organizational culture on organizational performance: An Iranian experience in state bank branches. *Iranian Journal of Management Studies, 8*(1), 97-116. Retrieved from http://ijms.ut.ac.ir/

Nafei, W. A. (2013). The impact of cultural intelligence on employee job performance: An empirical study on King Abdel-Aziz hospital in Al-Taif Governorate, Kingdom of Saudi Arabia. *International Journal of Business and Management, 8*(1), 26-43. doi:10.5539/ijbm.v8n1p26

Najafian, B., & Sedighi, A. (2016). The relationship between translation trainees' thinking styles and their translation quality. *Theory and Practice in Language Studies, 6*(5), 1096-1104. doi:10.17507/tpls.0605.25

Nazir, A., Ichinomiya, T., Miyamura, N., Sekiya, Y., & Kinosada, Y. (2014). Identification of suicide-related events through network analysis of adverse event reports. *Drug Safety, 37*(8), 609-616. doi:10.1007/s40264-014-0195-2

Ngoasong, M. Z. (2014). How international oil and gas companies respond to local content policies in petroleum-producing developing countries: A narrative enquiry. *Energy Policy, 73*, 471-479. doi:10.1016/j.enpol.2014.05.048

Nkechi, O. A., & Okezie, O. K. (2013). Investigating the interaction between foreign direct investment and human capital on growth: Evidence from Nigeria. *Asian Economic and Financial Review, 3*(9), 1134-1151. Retrieved from http://aessweb.com/journal-detail.php?id=5002

Norman, G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in Health Sciences Education, 15*(5), 625-632. doi:10.1007/s10459-010-9222-y

Nwapi, C. (2014). Enhancing the effectiveness of transparency in extractive resource governance: A Nigerian case study. *Law and Development Review, 7*(1), 23-47. doi:10.1515/ldr-2014-0015

Nwapi, C. (2015). Corruption vulnerabilities in local content policies in the extractive sector: An examination of the Nigerian Oil and Gas Industry Content Development Act, 2010. *Resources Policy, 46*(2), 92-96. doi:10.1016/j.resourpol.2015.09.001

Nwapi, C. (2015). Defining the "local" in local content requirements in the oil and gas and mining sectors in developing countries. *Law and Development Review, 8*(1),

187-216. doi:10.1515/ldr-2015-0008

Nwokoma, N. I. (2015). Review, challenges and future prospects of reforms in African economies: An appraisal of the Nigerian situation. *Journal of Economic Development, Management, IT, Finance, and Marketing, 7*(1), 1-13. Retrieved from http://www.gsmi-ijgb.com/Pages/JEDMITFMV7N1.aspx

Öcal, K., & Koçak, M. S. (2015). Developing a model of employee performance for public sport organizations. *International Refereed Academic Social Sciences Journal, 6*(18), 30-56. doi:10.17364/IIB.20151810981

Osibanjo, A. O., Akinbode, J. O., Falola, H. O., & Oludayo, A. O. (2015). Work ethics and employees' job performance. *Journal of Leadership, Accountability and Ethics, 12*(1), 107-117. Retrieved from http://www.na-businesspress.com/jlaeopen.html

Oumar, S. B., & Mbonigaba, J. (2014). An assessment of the performance of the Cameroon Water Corporation for the period 1967 to 2013. *Journal of Applied Business Research, 30*(3), 929-952. Retrieved from http://www.cluteinstitute.com/journals/journal-of-applied-business-research-jabr/

Ovadia, J. S. (2013). The Nigerian "one percent" and the management of national oil wealth through Nigerian content. *Science & Society, 77*(3), 315-341. doi:10.1521/siso.2013.77.3.315

Oyewale, I., Adeyemo, S. A., & Ogunleye, P. O. (2013). Technological innovation: An imperative tool for entrepreneurship development in Nigeria. *Australian Journal*

*of Business and Management Research, 3*(8), 41-47. Retrieved from http://www.ajbmr.com/

Petros, P. (2014). The effect of human resource practices on employee performance in hospitals: A systematic review. *Journal of Alternative Medicine Research, 6*(1), 19-26. Retrieved from http://www.novapublishers.com/catalog/product_info.php?products_id=6404

Piaget, J. (1950). *The psychology of intelligence.* New York, NY: Routledge.

Piza, C., Cravo, T. A., Taylor, L., Gonzalez, L., Musse, I., Furtado, I., . . . Abdelnour, S. (2016). The impacts of business support services for small and medium enterprises on firm performance in low-and middle-income countries: A systematic review. *Campbell Systematic Reviews, 12*(1), 1-166. doi:10.4073/csr.2016.1

Raggi, A., Giovannetti, A. M., Schiavolin, S., Leonardi, M., Bussone, G., Grazzi, L., . . . D'Amico, D. (2014). Validating the migraine-specific quality of life questionnaire v2.1 (MSQ) in Italian inpatients with chronic migraine with a history of medication overuse. *Quality of Life Research, 23*(4), 1273-1277. doi:10.1007/s11136-013-0556-9

Rangriz, H., & Pashootanizadeh, H. (2014). Desirable system requirements for employee performance evaluation to establishment of meritocracy and continuous improvement by using TQMPE and AHP model. *Science, Technology and Arts Research Journal, 3*(3), 185-190. doi:10.4314/star.v3i3.30

Ratten, V. (2015). A cross-cultural comparison of online behavioural advertising

knowledge, online privacy concerns and social networking using the technology acceptance model and social cognitive theory. *Journal of Science and Technology Policy Management, 6*(1), 25-36. doi:10.1108/JSTPM-06-2014-0029

Rea, L. M., & Parker, R. A. (2014). *Designing and conducting survey research*. San Francisco, CA: Jossey-Bass.

Renouard, C., & Lado, H. (2012). CSR and inequality in the Niger Delta (Nigeria). *Corporate Governance, 12*(4), 472-484. doi:10.1108/14720701211267810

Revicki, D. A., Cook, K. F., Amtmann, D., Harnam, N., Chen, W., & Keefe, F. J. (2014). Exploratory and confirmatory factor analysis of the PROMIS pain quality item bank. *Quality of Life Research, 23*(1), 245-55. doi:10.1007/s11136-013-0467-9

Rowland, C. A., & Hall, R. D. (2013). Perceived unfairness in appraisal: Engagement and sustainable organizational performance. *EuroMed Journal of Business, 8*(3), 195-208. doi:10.1108/EMJB-06-2013-0034

Ryggvik, H. (2015). A short history of the Norwegian oil industry: From protected national champions to internationally competitive multinationals. *Business History Review, 89*(1), 3-41. doi:10.1017/S0007680515000045

Ryman, T. K., Austin, M. A., Hopkins, S., Philip, J., O'Brien, D., Thummel, K., & Boyer, B. B. (2014). Using exploratory factor analysis of FFQ data to identify dietary patterns among Yup'ik people. *Public Health Nutrition, 17*(3), 510-518. doi:10.1017/S1368980012005411

Sahin, D. R., & Uslu, T. (2014). Investigation of effects of accreditation, institutionalization and data communication on quality improvement and

employee performance. *Emerging Markets Journal, 3*(3), 32-46. doi:10.5195/emaj.2014.50

Sanjeev, R., & Singh, S. K. (2014). Employee perception towards performance appraisal program in packaging industry. *Journal of Strategic Human Resource Management, 3*(1), 16-22. Retrieved from http://www.publishingindia.com/jshrm/32/283/2014/

Shell. (2013). Nigeria's local content marathon - key strides, forward steps and challenges. Retrieved from https://s04.static-shell.com/content/dam/shell-new/local/country/nga/downloads/pdf/speeches/iw-speech-local-content.pdf

Shell. (2013). Shell in Nigeria. Nigerian content. Retrieved from http://s01.static-shell.com/content/dam/shell-new/local/country/nga/downloads/pdf/2013bnotes/nigerian-content.pdf

Shell. (2014). Sustainability report 2014. Retrieved from http://reports.shell.com/sustainability-report/2014/servicepages/welcome.html

Shell. (2015). Shell at a glance. Shell in Nigeria. Retrieved from http://www.shell.com.ng/aboutshell/at-a-glance.html

Silva, A. D., Taveira, M. D. C., Marques, C., & Gouveia, V. V. (2015). Satisfaction with life scale among adolescents and young adults in Portugal: Extending evidence of construct validity. *Social Indicators Research, 120*(1), 309-318. doi:10.1007/s11205-014-0587-9

Sipes, M., & Matson, J. L. (2014). Factor structure for autism spectrum disorders with toddlers using DSM-IV and DSM-5 criteria. *Journal of Autism and*

*Developmental Disorders, 44*(3), 636-647. doi:10.1007/s10803-013-1919-3

Snead, M. C., O'Leary, A. M., Mandel, M. G., Kourtis, A. P., Wiener, J., Jamieson, D. J., . . . Margolis, A. D. (2014). Relationship between social cognitive theory constructs and self-reported condom use: Assessment of behaviour in a subgroup of the safe in the city trial. *BMJ Open, 4*(12), 1-6. doi:10.1136/bmjopen-2014-006093

Sola, O., Obamuyi, T. M., Adekunjo, F. O., & Ogunleye, E. O. (2013). Manufacturing performance in Nigeria: Implication for sustainable development. *Asian Economic and Financial Review, 3*(9), 1195-1213. Retrieved from http://aessweb.com/journal-detail.php?id=5002

Suliman, A., & Harethi, B. A. (2013). Perceived work climate and employee performance in public security organizations in the UAE. *Transforming Government: People, Process and Policy, 7*(3), 410-424. doi:10.1108/TG-03-2012-0001

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*, 53-55. doi:10.5116/ijme.4dfb.8dfd

Total. (2014). Sustainable growth report 2014. Retrieved from http://www.total.com/sites/default/files/atoms/files/rapport_croissance_durable_va.pdf

Toua, R. E., de Kock, J. E., & Welzel, T. (2016). Predicting mortality rates: Comparison of an administrative predictive model (hospital standardized mortality ratio) with a physiological predictive model (acute physiology and chronic health evaluation IV) – A cross-sectional study. *Journal of Critical Care, 31*(1), 7-12.

doi:10.1016/j.jcrc.2015.09.023

Vela-Jiménez, M., Martínez-Sánchez, Á., Pérez-Pérez, M., & Abella-Garcés, S. (2014). How environmental changes and cooperation moderate labour flexibility and firm performance? *Personnel Review, 43*(6), 915-936. doi:10.1108/PR-01-2013-0014

Vidat, A. (2015). Issues legal and economic regarding amendments of the individual employment contract because the individual performance targets are not achieved by the employee. *Tribuna Juridica, 5*(2), 201-207. Retrieved from http://tribunajuridica.eu/arhiva/anul5v2_en.html

Villeneuve, L., Trudel, G., Préville, M., Dargis, L., Boyer, R., & Bégin, J. (2015). Dyadic Adjustment Scale: A validation study among older French-Canadians living in relationships. *Canadian Journal on Aging, 34*(1), 26-35. doi:10.1017/S0714980814000269

Vukovic, D. B. (2013). Correlation analysis of indicators of regional competitiveness: The case of the Republic of Serbia. *Ekonomski Horizonti, 15*(3), 201-215. doi:10.5937/ekonhor1303197V

Wilmoth, M. C., Hanlon, A. L., Ng, L. S., & Bruner, D. W. (2014). Factor analysis of the modified sexual adjustment questionnaire-male. *Journal of Nursing Measurement, 22*(2), 241-254. doi:10.1891/1061-3749.22.2.241

Xi, Y., Ren, F., Liang, S., Zhang, J., & Lin, D. (2014). Spatial analysis of the distribution, risk factors and access to medical resources of patients with Hepatitis B in Shenzhen, China. *International Journal of Environmental Research and Public Health, 11*(11), 11505-11527. doi:10.3390/ijerph111111505

Xu, X., Liu, L., Sharma, M., & Zhao, Y. (2015). Smoking-related knowledge, attitudes, behaviors, smoking cessation idea and education level among young adult male smokers in Chongqing, China. *International Journal of Environmental Research and Public Health, 12*(2), 2135-2149. doi:10.3390/ijerph120202135

Young, G. C., Kwon, J., & Kim, W. (2013). Effects of attitudes vs experience of workplace fun on employee behaviors: Focused on Generation Y in the hospitality industry. *International Journal of Contemporary Hospitality Management, 25*(3), 410-427. doi:10.1108/09596111311311044

Yu, Y., Shiu, C., Yang, J. P., Wang, M., Simoni, J. M., Chen, W., . . . Zhao, H. (2015). Factor analyses of a social support scale using two methods. *Quality of Life Research, 24*(4), 787-794. doi:10.1007/s11136-014-0815-4

Yusoff, R. B. M., Imran, A., Qureshi, M. I., & Kazi, A. G. (2016). Investigating the relationship of employee empowerment and sustainable manufacturing performance. *International Review of Management and Marketing, 6*(4), 284-290. Retrieved from http://www.econjournals.com/index.php/irmm

Zargar, S. M., Fujiwara, M., Inaba, S., Kobayashi, M., Kurata, R., Ogata, Y., & Fukao, Y. (2015). Correlation analysis of proteins responsive to Zn, Mn, or Fe deficiency in Arabidopsis roots based on iTRAQ analysis. *Plant Cell Reports, 34*(1), 157-166. doi:10.1007/s00299-014-1696-2

Zhang, X., Noor, R., & Savalei, V. (2016). Examining the effect of reverse worded items on the factor structure of the need for cognition scale. *PLoS One, 11*(6), 1-15. doi:10.1371/journal.pone.0157795

Zhang, Y., Zhang, S., Thabane, L., Furukawa, T. A., Johnston, B. C., & Guyatt, G. H. (2015). Although not consistently superior, the absolute approach to framing the minimally important difference has advantages over the relative approach. *Journal of Clinical Epidemiology, 68*(8), 888-894. doi:10.1016/j.jclinepi.2015.02.017

Zhou, Y., Zhang, Q., Singh, V. P., & Xiao, M. (2015). General correlation analysis: A new algorithm and application. *Stochastic Environmental Research and Risk Assessment, 29*(3), 665-677. doi:10.1007/s00477-014-0970-8

Zhou, J., Zuo, M., Yu, Y., & Chai, W. (2014). How fundamental and supplemental interactions affect users' knowledge sharing in virtual communities? A social cognitive perspective. *Internet Research, 24*(5), 566-586. doi:10.1108/IntR-07-2013-0143

Zimmermannova, J., Skalickova, J., & Siroky, J. (2016). What can tax revenues tell us about the economic activity of regions? *Economics & Sociology, 9*(1), 114-128. doi:10.14254/2071-789X.2016/9-1/8

## Appendix A: Request to Complete Doctoral Study Survey

Dear Participant:

I invite you to consider voluntary participation in a study. If you choose to participate, it will help me to examine the relationship among three variables: the employees' perception of the level of implementation of the Nigerian Oil and Gas Industry Content Development Act, the employees' perceived task performance, and the employees' perceived organizational business performance. You received this invitation asking for voluntary participation because you are a full-time employee of one of the five major petroleum-producing companies in Nigeria. My name is Olakunle Ayoola. I am the researcher for this study. I am a doctoral research student at Walden University. Walden University's Institutional Review Board (IRB) provided the approval for me to carry out this survey. The role of the IRB is to ensure that researchers follow the highest ethical standards and regulatory guidelines in their research studies.

If you choose to participate, your role is to complete a survey. This survey will help me to discover if there is a relationship among the stated variables. If you choose to participate, please click on the link in this email to access the website where the survey may be completed. The website opens with a participant consent form to either voluntary participate or decline to participate in the study. The participant consent form also contains the details of the research study, how you can participate, and the contact information of the researcher and Walden University's Research Participant Advocate. I or the Walden University's Research Participant Advocate can address your concerns or

inquiries about the study or your rights as a participant. Please print or save the consent form for your records. Thank you for your time.

Web Link:

https://www.surveymonkey.co.uk/r/Main_NCDCoyPerf

## Appendix B: Invitation to Complete Pilot Survey

Dear Participant:

I invite you to consider voluntary participation in a pilot study. If you choose to participate, it will help me to check if the survey questions are easy to understand and good enough to achieve the aim of the study. The aim of the study is to examine the relationship among three variables: the employees' perception of the level of implementation of the Nigerian Oil and Gas Industry Content Development Act, the employees' perceived task performance, and the employees' perceived organizational business performance. You received this invitation asking for voluntary participation because you are a full-time employee of one of the five major petroleum-producing companies in Nigeria. My name is Olakunle Ayoola. I am the researcher for this study. I am a doctoral research student at Walden University. Walden University's Institutional Review Board (IRB) provided the approval for me to carry out this survey. The role of the IRB is to ensure that researchers follow the highest ethical standards and regulatory guidelines in their research studies.

If you choose to participate, your role is to complete a survey. This survey will help me to check the quality of the survey questions and to improve the survey questions if necessary. If you choose to participate, please click on the link in this email to access the website where the survey may be completed. The website opens with a participant consent form to either voluntary participate or decline to participate in the study. The participant consent form also contains the details of the research study, how you can participate, and the contact information of the researcher and Walden University's

Research Participant Advocate. I or the Walden University's Research Participant Advocate can address your concerns or inquiries about the study or your rights as a participant. Please print or save the consent form for your records. Thank you for your time.

Web Link:

https://www.surveymonkey.co.uk/r/Pilot_NCDCoyPerf

# Appendix C: Nigerian Petroleum Industry Perceived Performance Survey (NPIPPS) Instrument

Part A: Impact of the employee's perception of the level of implementation of the act on the employee's perceived task performance.

For the following question, please choose from the following answers.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Very low | | | | Very high |

Question #1: Rate your perception of how well your current place of employment has met the requirements of the act since its implementation in 2010.

For the following questions, please choose from the following answers.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly disagree | | | | Strongly agree |

Question #2: The act has increased my knowledge of the tasks I perform.

Question #3: The act has improved my adaptability to the new way of working in the industry.

Question #4: The act has improved my cooperation with contractors/stakeholders to deliver my tasks.

Question #5: The act has increased the quality of work I perform.

Question #6: The act has improved the quantity of work I perform.

Question #7: The act has improved my problem-solving skills.

Question #8: The act has improved my decision-making skills.

Question #9: The act has improved my leadership skills.

Question #10: The act has improved my professional attitude to my job.

Question #11: The act has strengthened my integrity in carrying out my tasks.

Question #12: The act has improved my versatility in carrying out my tasks.

Question #13: The act has increased my motivation to perform my tasks.

Part B: Impact of the employee's perception of the level of implementation of the act on the perceived organizational business performance.

For the following questions, please choose from the following answers.

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Strongly disagree | | | | Strongly agree |

Question #14: The act has improved the efficiency of work processes in my current place of employment.

Question #15: The act has improved the cost performance of my current place of employment.

Question #16: The act has improved my current place of employment's competitiveness in the petroleum industry.

Question #17: The act has increased the profitability of my current place of employment.

Question #18: The act has increased the growth of my current place of employment.

Question #19: The act has improved the customer satisfaction level of the contractors/stakeholders of my current place of employment.

Part C: Demographic information.

1. Age range (in years)

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| 18-30 | 31-40 | 41-50 | Over 50 | Prefer not to answer |

2. Gender

| 1 | 2 | 3 |
|---|---|---|
| Male | Female | Prefer not to answer |

3. Level of education

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Polytechnic/Technical College | Bachelor's Degree | Master's Degree | Advanced Graduate Study or PhD | Others | Prefer not to answer |

Others: Please specify_____

4. Role in my current place of employment

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| Entry Level | Technical Professional | Business Professional | Management Role | Prefer not to answer |

5. Number of years of work experience

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| 0-5 | 5-10 | 10-15 | 15-20 | Over 20 | Prefer not to answer |

Thank you for participating in this study.

# Appendix D: Details of the 20 Fully Completed Pilot Study Survey Responses

| Respondent | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 1 | 1 | 2 | 1 | 1 |
| 2 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 3 | 4 | 2 | 2 | 4 | 2 | 2 | 3 | 2 | 3 | 2 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 3 | 2 | 1 | 3 | 2 | 3 |
| 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 2 | 1 | 2 | 2 | 3 |
| 5 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 2 | 1 | 2 | 1 | 3 | 3 | 2 |
| 6 | 4 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 2 | 3 | 2 | 4 | 5 | 3 | 2 | 3 | 2 | 5 |
| 7 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 2 | 2 | 2 | 2 | 2 |
| 8 | 5 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 9 | 4 | 2 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 2 | 1 | 4 | 2 | 2 |
| 10 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 1 | 3 | 2 | 5 |
| 11 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 2 | 3 | 4 | 2 | 2 | 3 | 3 | 2 |
| 12 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 2 | 2 | 3 | 2 | 2 | 1 | 3 | 2 | 3 | 2 | 1 | 2 | 2 | 1 |
| 13 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 3 | 4 | 4 | 4 | 5 | 4 | 1 | 3 | 4 | 5 |
| 14 | 3 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 5 | 3 | 2 | 1 | 3 | 2 | 2 | 5 | 3 | 1 | 2 | 4 | 4 |
| 15 | 5 | 4 | 4 | 4 | 3 | 4 | 4 | 5 | 5 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 5 | 2 | 1 | 2 | 2 | 2 |
| 16 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 2 |
| 17 | 5 | 4 | 4 | 4 | 5 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 1 | 2 | 2 | 4 | 2 | 1 | 3 | 4 | 3 |
| 18 | 4 | 4 | 4 | 3 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 2 | 3 |
| 19 | 5 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 1 |
| 20 | 3 | 3 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 3 |

Appendix E: SPSS Results of the Cronbach's Coefficient of Alpha Analysis of the Pilot Study

```
RELIABILITY
  /VARIABLES=Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL.
```

## Reliability

**Notes**

| | | |
|---|---|---|
| Output Created | | 01-OCT-2016 18:52:48 |
| Comments | | |
| Input | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 20 |
| | Matrix Input | |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| | Cases Used | Statistics are based on all cases with valid data for all variables in the procedure. |
| Syntax | | RELIABILITY /VARIABLES=Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL. |
| Resources | Processor Time | 00:00:00.00 |
| | Elapsed Time | 00:00:00.01 |

## Scale: ALL VARIABLES

### Case Processing Summary

| | | N | % |
|---|---|---|---|
| Cases | Valid | 20 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 20 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

| Cronbach's Alpha | N of Items |
|---|---|
| .905 | 12 |

### Item Statistics

| | Mean | Std. Deviation | N |
|---|---|---|---|
| Q2 | 2.95 | .999 | 20 |
| Q3 | 3.80 | .951 | 20 |
| Q4 | 3.85 | .671 | 20 |
| Q5 | 3.25 | .786 | 20 |
| Q6 | 3.35 | .813 | 20 |
| Q7 | 3.65 | .813 | 20 |
| Q8 | 3.70 | .923 | 20 |
| Q9 | 3.70 | .801 | 20 |
| Q10 | 3.45 | .759 | 20 |
| Q11 | 3.55 | .999 | 20 |
| Q12 | 3.60 | 1.095 | 20 |
| Q13 | 3.25 | .716 | 20 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| Q2 | 39.15 | 45.924 | .476 | .907 |
| Q3 | 38.30 | 43.379 | .724 | .893 |
| Q4 | 38.25 | 47.776 | .553 | .901 |
| Q5 | 38.85 | 49.924 | .253 | .914 |
| Q6 | 38.75 | 47.145 | .498 | .904 |
| Q7 | 38.45 | 44.471 | .759 | .892 |
| Q8 | 38.40 | 42.147 | .864 | .885 |
| Q9 | 38.40 | 46.463 | .572 | .900 |
| Q10 | 38.65 | 45.082 | .755 | .893 |
| Q11 | 38.55 | 43.313 | .688 | .895 |
| Q12 | 38.50 | 41.316 | .770 | .890 |
| Q13 | 38.85 | 45.713 | .736 | .894 |

**Scale Statistics**

| Mean | Variance | Std. Deviation | N of Items |
|---|---|---|---|
| 42.10 | 53.358 | 7.305 | 12 |

```
RELIABILITY
  /VARIABLES=Q14 Q15 Q16 Q17 Q18 Q19
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL.
```

# Reliability

**Notes**

| | | |
|---|---|---|
| Output Created | | 01-OCT-2016 18:55:37 |
| Comments | | |
| Input | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 20 |
| | Matrix Input | |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| | Cases Used | Statistics are based on all cases with valid data for all variables in the procedure. |
| Syntax | | RELIABILITY /VARIABLES=Q14 Q15 Q16 Q17 Q18 Q19 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL. |
| Resources | Processor Time | 00:00:00.00 |
| | Elapsed Time | 00:00:00.01 |

## Scale: ALL VARIABLES

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 20 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 20 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .825 | 6 |

**Item Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| Q14 | 3.20 | .951 | 20 |
| Q15 | 2.40 | .995 | 20 |
| Q16 | 3.25 | .967 | 20 |
| Q17 | 3.00 | .795 | 20 |
| Q18 | 3.15 | .875 | 20 |
| Q19 | 4.05 | 1.146 | 20 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| Q14 | 15.85 | 13.187 | .527 | .811 |
| Q15 | 16.65 | 13.397 | .460 | .825 |
| Q16 | 15.80 | 12.168 | .687 | .777 |
| Q17 | 16.05 | 13.945 | .532 | .810 |
| Q18 | 15.90 | 11.779 | .864 | .743 |
| Q19 | 15.00 | 12.000 | .557 | .810 |

**Scale Statistics**

| Mean | Variance | Std. Deviation | N of Items |
|---|---|---|---|
| 19.05 | 17.734 | 4.211 | 6 |

# Appendix F: Details of the 372 Fully Completed Main Study Survey Responses

| Respondent | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 2 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 2 | 3 | 3 | 3 |
| 3 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 2 | 2 | 1 | 3 | 2 | 1 |
| 4 | 5 | 2 | 3 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 3 | 2 | 1 | 3 | 2 | 3 |
| 5 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 1 |
| 6 | 4 | 4 | 2 | 5 | 1 | 4 | 1 | 4 | 1 | 1 | 2 | 2 | 4 | 1 | 4 | 3 | 4 | 4 | 4 | 2 | 1 | 3 | 2 | 3 |
| 7 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 4 |
| 8 | 2 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 3 | 4 | 4 | 1 | 1 | 2 | 5 |
| 9 | 5 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 2 | 1 | 1 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 |
| 10 | 4 | 3 | 5 | 5 | 3 | 4 | 5 | 4 | 5 | 4 | 5 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 5 | 3 | 1 | 2 | 4 | 4 |
| 11 | 4 | 4 | 4 | 3 | 2 | 1 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 2 | 2 | 4 |
| 12 | 2 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 2 | 1 | 2 | 1 | 1 |
| 13 | 4 | 2 | 2 | 4 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 4 | 3 |
| 14 | 3 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 2 | 2 | 2 | 3 |
| 15 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 3 | 5 | 4 | 5 | 5 | 4 | 4 | 2 | 4 | 3 | 3 | 5 | 2 | 2 | 2 | 2 | 2 |
| 16 | 5 | 4 | 5 | 5 | 4 | 2 | 3 | 4 | 5 | 3 | 4 | 5 | 4 | 3 | 2 | 4 | 3 | 3 | 5 | 3 | 2 | 3 | 4 | 4 |
| 17 | 5 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 4 | 4 |
| 18 | 5 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 5 | 4 | 3 | 3 | 1 | 1 | 1 | 1 | 4 | 1 | 1 | 2 | 2 | 1 | 1 |
| 19 | 5 | 3 | 3 | 4 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 2 | 1 | 3 | 2 | 4 |
| 20 | 5 | 4 | 5 | 5 | 4 | 2 | 4 | 5 | 5 | 4 | 5 | 5 | 4 | 3 | 2 | 4 | 4 | 4 | 5 | 2 | 2 | 2 | 2 | 3 |
| 21 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 5 | 3 | 1 | 2 | 2 | 5 |
| 22 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 2 |
| 23 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 24 | 4 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 4 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 1 | 4 | 2 | 4 |
| 25 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 1 | 4 | 2 | 5 |
| 26 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 2 | 2 | 3 | 2 | 3 | 5 | 2 | 2 | 3 | 3 | 3 |
| 27 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 1 |
| 28 | 4 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 5 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 5 | 2 | 2 | 2 | 2 | 2 |
| 29 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 1 | 3 | 2 | 3 |
| 30 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 31 | 5 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 1 | 2 | 2 | 1 | 1 |
| 32 | 4 | 3 | 4 | 5 | 4 | 2 | 4 | 4 | 4 | 4 | 5 | 5 | 3 | 3 | 1 | 2 | 2 | 2 | 4 | 3 | 1 | 2 | 2 | 5 |
| 33 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 1 | 4 | 2 | 3 | 5 | 2 | 1 | 3 | 3 | 3 |
| 34 | 4 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 2 | 2 | 2 | 3 |
| 35 | 4 | 4 | 4 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 3 |
| 36 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 5 |
| 37 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 4 | 4 |
| 38 | 5 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 39 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 3 |
| 40 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 1 | 2 | 3 | 3 | 2 |
| 41 | 5 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 3 | 4 | 3 | 4 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 5 |
| 42 | 4 | 4 | 4 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 3 |
| 43 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 44 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 1 | 2 | 2 | 5 |
| 45 | 4 | 3 | 4 | 4 | 2 | 2 | 4 | 4 | 2 | 3 | 2 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 2 |
| 46 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 5 | 5 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 5 |
| 47 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 1 | 1 |
| 48 | 4 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 2 | 4 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 5 |
| 49 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 3 |
| 50 | 5 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 3 | 4 | 4 |
| 51 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 2 | 2 | 2 | 3 |
| 52 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 1 | 3 | 2 | 3 |
| 53 | 4 | 4 | 4 | 5 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 5 | 3 | 3 | 1 | 4 | 2 | 3 | 4 | 2 | 2 | 3 | 3 | 3 |
| 54 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 3 |

| Respondent | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 1 | 2 | 3 | 3 | 2 |
| 56 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 1 | 2 | 2 | 5 |
| 57 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 3 | 1 | 3 | 2 | 3 |
| 58 | 5 | 4 | 4 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 1 | 4 | 3 | 3 | 5 | 2 | 2 | 3 | 3 | 2 |
| 59 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 60 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 1 |
| 61 | 4 | 4 | 4 | 4 | 3 | 2 | 4 | 4 | 2 | 3 | 2 | 4 | 3 | 2 | 1 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 3 | 3 |
| 62 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 1 | 2 | 2 | 3 | 1 |
| 63 | 5 | 4 | 4 | 4 | 2 | 2 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 5 | 3 | 1 | 2 | 4 | 4 |
| 64 | 5 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 3 |
| 65 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 5 |
| 66 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 3 | 2 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 67 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 2 | 3 | 4 | 3 |
| 68 | 5 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 4 | 3 | 4 | 5 | 2 | 2 | 2 | 2 | 3 |
| 69 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 3 | 1 | 3 | 2 | 4 |
| 70 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 4 | 1 | 2 | 2 | 5 |
| 71 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 2 | 1 | 2 | 2 | 2 |
| 72 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 1 | 1 | 2 | 1 | 1 |
| 73 | 5 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 2 | 1 | 3 | 2 | 2 |
| 74 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 1 | 2 | 2 | 2 | 1 |
| 75 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 4 | 2 | 3 | 4 | 3 | 2 | 3 | 4 | 3 |
| 76 | 4 | 4 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 5 |
| 77 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 3 | 1 | 3 | 2 | 3 |
| 78 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 1 | 2 | 2 | 1 | 1 |
| 79 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 1 | 4 | 4 | 4 | 5 | 3 | 2 | 3 | 4 | 4 |
| 80 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 81 | 4 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 3 | 3 | 1 | 4 | 3 | 3 | 5 | 2 | 2 | 3 | 3 | 2 |
| 82 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 4 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 4 |
| 83 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 1 |
| 84 | 4 | 4 | 3 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 4 |
| 85 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 3 |
| 86 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 3 | 2 | 2 | 2 | 5 |
| 87 | 4 | 4 | 5 | 5 | 2 | 2 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 4 | 2 | 4 | 3 | 4 | 5 | 4 | 1 | 4 | 2 | 5 |
| 88 | 4 | 3 | 3 | 5 | 3 | 3 | 5 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 1 | 3 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 5 |
| 89 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 3 |
| 90 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 4 | 3 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 2 |
| 91 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 1 | 1 |
| 92 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 3 | 4 | 5 | 4 | 4 | 1 | 3 | 3 | 3 | 4 | 4 | 1 | 2 | 2 | 5 |
| 93 | 5 | 3 | 4 | 4 | 3 | 2 | 4 | 4 | 3 | 3 | 4 | 5 | 3 | 3 | 1 | 3 | 3 | 4 | 5 | 2 | 2 | 3 | 3 | 3 |
| 94 | 4 | 3 | 4 | 4 | 2 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 1 | 4 | 3 | 3 | 5 | 3 | 2 | 2 | 2 | 3 |
| 95 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 2 | 4 | 4 | 4 | 2 | 2 | 4 | 5 |
| 96 | 4 | 3 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 5 | 4 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 5 |
| 97 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 98 | 4 | 4 | 4 | 5 | 2 | 2 | 4 | 4 | 3 | 3 | 5 | 5 | 2 | 4 | 1 | 3 | 3 | 3 | 5 | 3 | 2 | 2 | 4 | 4 |
| 99 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 5 | 3 | 3 | 1 | 4 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 2 |
| 100 | 5 | 3 | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 3 | 5 | 5 | 3 | 3 | 2 | 4 | 2 | 4 | 5 | 4 | 1 | 4 | 2 | 5 |
| 101 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 5 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 2 |
| 102 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 2 | 4 | 3 | 3 | 5 | 4 | 1 | 2 | 2 | 5 |
| 103 | 5 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 4 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 5 |
| 104 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 105 | 3 | 2 | 3 | 4 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 1 | 2 | 2 | 3 |
| 106 | 4 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 4 | 1 | 3 | 2 | 5 |
| 107 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 2 | 1 | 4 | 2 | 3 | 5 | 2 | 2 | 2 | 3 | 3 |
| 108 | 4 | 2 | 4 | 5 | 2 | 2 | 4 | 4 | 2 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 5 |
| 109 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 2 | 1 | 3 | 2 | 3 |
| 110 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | 3 | 4 | 4 | 3 | 2 | 2 | 2 | 4 |

| Respondent | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 111 | 5 | 3 | 4 | 5 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 2 | 4 | 3 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 112 | 4 | 3 | 3 | 4 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 3 |
| 113 | 4 | 3 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 3 | 4 | 3 | 4 | 5 | 4 | 1 | 4 | 2 | 5 |
| 114 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 2 | 3 | 4 | 3 |
| 115 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 1 | 3 | 3 | 3 | 4 | 4 | 1 | 4 | 3 | 5 |
| 116 | 4 | 3 | 4 | 4 | 2 | 2 | 4 | 3 | 2 | 3 | 4 | 4 | 3 | 2 | 1 | 4 | 1 | 2 | 4 | 2 | 2 | 3 | 2 | 3 |
| 117 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 1 | 4 | 2 | 5 |
| 118 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 3 | 1 | 3 | 4 | 4 |
| 119 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 1 | 2 | 2 | 5 |
| 120 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 121 | 5 | 2 | 4 | 5 | 3 | 3 | 5 | 4 | 3 | 3 | 4 | 5 | 3 | 3 | 1 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 2 |
| 122 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 1 | 4 | 2 | 2 | 4 | 2 | 1 | 3 | 2 | 3 |
| 123 | 4 | 4 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 3 | 2 | 2 |
| 124 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 2 | 4 | 4 | 3 | 1 | 3 | 4 | 4 |
| 125 | 4 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 2 |
| 126 | 5 | 3 | 4 | 4 | 2 | 2 | 4 | 4 | 2 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 2 | 2 | 3 | 3 | 3 |
| 127 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 1 |
| 128 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 4 | 1 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 3 |
| 129 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 2 | 2 | 3 | 4 | 3 |
| 130 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 2 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 4 |
| 131 | 5 | 4 | 4 | 5 | 2 | 2 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 2 | 1 | 2 | 2 | 2 |
| 132 | 4 | 4 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 3 | 2 |
| 133 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 3 |
| 134 | 4 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 5 |
| 135 | 5 | 4 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 4 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 2 |
| 136 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 4 | 2 | 2 | 2 | 4 | 3 | 4 | 4 | 2 | 2 | 3 | 3 | 3 |
| 137 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 4 |
| 138 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 3 | 4 | 5 | 5 | 4 | 3 | 1 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 3 | 2 |
| 139 | 4 | 4 | 5 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 5 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 1 | 3 | 4 | 4 |
| 140 | 4 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 4 | 4 | 3 | 4 | 2 | 4 | 3 | 3 | 5 | 3 | 1 | 3 | 2 | 5 |
| 141 | 5 | 4 | 4 | 5 | 4 | 2 | 5 | 4 | 3 | 4 | 5 | 5 | 3 | 3 | 1 | 3 | 2 | 2 | 4 | 2 | 2 | 3 | 3 | 3 |
| 142 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 2 | 2 | 5 |
| 143 | 4 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 3 | 2 | 2 | 4 | 3 | 4 | 5 | 4 | 1 | 2 | 2 | 5 |
| 144 | 5 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 4 | 3 | 4 | 3 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 145 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 3 | 3 |
| 146 | 5 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 2 | 2 | 2 | 4 | 3 | 3 | 1 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 4 |
| 147 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 3 | 3 | 5 | 2 | 2 | 3 | 2 | 3 |
| 148 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 2 |
| 149 | 4 | 4 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 1 | 1 | 2 | 2 | 2 |
| 150 | 4 | 4 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 3 | 3 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 3 | 2 | 3 |
| 151 | 5 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 1 | 2 | 2 | 5 |
| 152 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 4 | 2 | 3 | 5 | 3 | 2 | 3 | 4 | 3 |
| 153 | 5 | 4 | 5 | 5 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 2 | 1 | 2 | 2 | 2 |
| 154 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 1 | 1 |
| 155 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 3 | 3 | 1 | 2 | 2 | 3 | 5 | 2 | 1 | 2 | 2 | 3 |
| 156 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 4 | 3 | 5 | 5 | 4 | 3 | 1 | 3 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 5 |
| 157 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 2 |
| 158 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 3 |
| 159 | 4 | 3 | 4 | 4 | 2 | 2 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 3 |
| 160 | 4 | 3 | 3 | 5 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 4 | 1 | 2 | 2 | 5 |
| 161 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | 2 | 2 | 3 | 2 |
| 162 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 2 | 4 | 4 | 4 | 4 | 5 | 2 | 2 | 3 | 2 | 3 |
| 163 | 5 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 1 | 3 | 3 | 3 | 5 | 3 | 1 | 3 | 2 | 4 |
| 164 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 2 |
| 165 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 4 | 3 | 3 | 5 | 3 | 1 | 3 | 2 | 4 |

| Respondent | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 166 | 4 | 2 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 1 | 1 |
| 167 | 5 | 4 | 5 | 5 | 2 | 2 | 4 | 4 | 3 | 3 | 4 | 5 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 168 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 3 |
| 169 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 3 | 5 | 5 | 4 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 3 |
| 170 | 4 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 3 | 2 | 3 |
| 171 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 1 | 1 |
| 172 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 3 |
| 173 | 5 | 4 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 2 |
| 174 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 1 | 2 | 2 | 5 |
| 175 | 5 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 3 | 3 | 4 | 5 | 2 | 2 | 2 | 2 | 2 |
| 176 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 1 |
| 177 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 1 | 3 | 2 | 2 | 4 | 3 | 2 | 2 | 3 | 5 |
| 178 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 3 | 5 | 5 | 3 | 5 | 3 | 4 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 5 |
| 179 | 4 | 3 | 4 | 4 | 2 | 2 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 4 | 2 | 4 | 3 | 3 | 5 | 3 | 1 | 3 | 2 | 4 |
| 180 | 5 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 3 | 3 | 3 | 4 | 2 | 2 | 3 | 2 | 2 |
| 181 | 4 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 182 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 2 | 2 | 2 | 2 |
| 183 | 4 | 4 | 4 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 4 | 5 | 3 | 2 | 5 | 4 | 3 | 4 | 4 | 2 | 1 | 2 | 2 | 2 |
| 184 | 5 | 2 | 4 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 5 | 2 | 1 | 2 | 2 | 3 |
| 185 | 5 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 5 | 5 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 3 | 2 | 3 | 3 | 4 |
| 186 | 4 | 3 | 4 | 4 | 2 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 2 |
| 187 | 4 | 4 | 4 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 2 | 1 | 2 | 2 | 3 |
| 188 | 5 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 4 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 1 | 3 | 2 | 4 |
| 189 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 4 | 5 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 3 | 3 | 2 |
| 190 | 4 | 3 | 5 | 5 | 2 | 2 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 2 | 3 | 2 | 3 |
| 191 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 5 | 4 | 1 | 2 | 2 | 5 |
| 192 | 4 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 5 | 5 | 5 | 3 | 3 | 2 | 4 | 3 | 3 | 5 | 3 | 1 | 3 | 2 | 3 |
| 193 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 4 | 4 | 4 | 5 | 5 | 3 | 2 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 2 |
| 194 | 4 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 4 |
| 195 | 5 | 4 | 5 | 5 | 2 | 2 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 1 | 4 | 3 | 4 | 5 | 3 | 2 | 3 | 4 | 5 |
| 196 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 197 | 4 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 3 |
| 198 | 5 | 3 | 4 | 5 | 4 | 2 | 4 | 4 | 2 | 3 | 4 | 5 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 1 | 2 | 3 | 2 | 2 |
| 199 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 200 | 5 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 3 | 5 | 5 | 3 | 2 | 1 | 2 | 2 | 3 | 4 | 3 | 1 | 3 | 4 | 4 |
| 201 | 5 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 3 | 1 | 4 | 3 | 3 | 5 | 3 | 1 | 2 | 2 | 4 |
| 202 | 5 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 3 |
| 203 | 4 | 4 | 4 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 2 | 2 | 2 | 2 |
| 204 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 5 | 3 | 1 | 3 | 4 | 3 |
| 205 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 4 | 3 | 4 | 4 | 4 | 5 | 2 | 2 | 2 | 2 | 2 |
| 206 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 2 | 3 | 2 | 2 |
| 207 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 2 | 4 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 3 |
| 208 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 |
| 209 | 5 | 4 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 4 | 5 | 5 | 4 | 4 | 3 | 4 | 3 | 4 | 5 | 2 | 2 | 3 | 3 | 2 |
| 210 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 1 |
| 211 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 1 | 3 | 2 | 4 |
| 212 | 5 | 2 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 2 |
| 213 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 4 | 3 |
| 214 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 2 | 3 | 1 |
| 215 | 4 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 216 | 4 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 2 |
| 217 | 5 | 2 | 4 | 5 | 4 | 4 | 5 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 3 |
| 218 | 4 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 5 |
| 219 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 3 | 2 | 2 |
| 220 | 5 | 4 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 3 |

| Respondent | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 221 | 4 | 3 | 4 | 4 | 2 | 4 | 5 | 4 | 4 | 3 | 5 | 5 | 3 | 3 | 2 | 4 | 2 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 222 | 5 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 1 | 4 | 2 | 4 | 5 | 2 | 2 | 2 | 2 | 3 |
| 223 | 4 | 2 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 3 | 5 | 5 | 3 | 4 | 3 | 3 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 4 |
| 224 | 4 | 2 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 3 | 3 | 2 | 4 | 2 | 3 | 5 | 2 | 1 | 3 | 2 | 2 |
| 225 | 4 | 4 | 5 | 5 | 2 | 2 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 2 | 4 | 4 | 4 | 5 | 5 | 3 | 2 | 3 | 4 | 4 |
| 226 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 5 | 3 | 1 | 2 | 2 | 4 |
| 227 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 5 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 3 |
| 228 | 5 | 4 | 4 | 5 | 3 | 3 | 5 | 4 | 4 | 3 | 5 | 5 | 4 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 2 | 3 | 3 | 4 |
| 229 | 4 | 3 | 5 | 5 | 2 | 2 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 3 |
| 230 | 5 | 3 | 4 | 5 | 3 | 3 | 5 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 2 | 4 | 4 | 4 | 5 | 1 | 2 | 2 | 1 | 1 |
| 231 | 5 | 4 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 1 | 1 | 3 | 1 | 1 |
| 232 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 4 |
| 233 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 4 | 2 | 3 | 4 | 3 | 3 | 1 | 1 | 3 | 2 | 2 | 4 | 2 | 1 | 3 | 2 | 3 |
| 234 | 5 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 3 | 4 | 4 | 5 | 3 | 2 | 1 | 3 | 3 | 3 | 4 | 2 | 1 | 2 | 2 | 3 |
| 235 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 2 | 3 | 4 | 1 | 2 | 2 | 3 | 1 |
| 236 | 4 | 2 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 5 | 3 | 3 | 3 | 4 | 3 | 4 | 5 | 4 | 1 | 3 | 2 | 5 |
| 237 | 5 | 4 | 4 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 5 | 4 | 3 | 2 | 1 | 3 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 5 |
| 238 | 5 | 4 | 4 | 4 | 3 | 3 | 5 | 4 | 4 | 4 | 5 | 4 | 3 | 3 | 2 | 4 | 4 | 3 | 5 | 2 | 2 | 2 | 3 | 2 |
| 239 | 5 | 4 | 4 | 5 | 2 | 2 | 5 | 5 | 4 | 4 | 5 | 5 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 2 |
| 240 | 4 | 4 | 5 | 5 | 2 | 2 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 3 | 5 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 3 |
| 241 | 5 | 3 | 4 | 4 | 3 | 3 | 5 | 4 | 3 | 4 | 4 | 5 | 3 | 3 | 2 | 4 | 2 | 3 | 5 | 2 | 2 | 2 | 2 | 3 |
| 242 | 5 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 2 | 4 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 3 |
| 243 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 1 | 2 | 2 | 2 | 4 | 2 | 1 | 3 | 2 | 2 |
| 244 | 5 | 4 | 4 | 5 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 5 | 3 | 1 | 3 | 4 | 4 |
| 245 | 5 | 3 | 4 | 4 | 3 | 3 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 5 | 3 | 1 | 2 | 2 | 3 |
| 246 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 3 |
| 247 | 5 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 3 | 2 | 3 |
| 248 | 4 | 3 | 4 | 5 | 2 | 2 | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 3 |
| 249 | 5 | 4 | 3 | 5 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | 4 | 4 | 4 | 1 | 3 | 1 | 2 | 2 | 2 | 2 |
| 250 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 3 | 2 | 4 | 3 | 4 | 5 | 2 | 2 | 2 | 2 | 3 |
| 251 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 2 | 4 | 4 |
| 252 | 5 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 2 | 3 |
| 253 | 5 | 3 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 3 | 4 | 3 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 254 | 4 | 3 | 5 | 5 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 1 | 3 | 2 | 3 |
| 255 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 1 | 2 | 2 | 3 | 1 |
| 256 | 5 | 3 | 4 | 5 | 2 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 3 | 3 | 3 | 3 | 5 | 4 | 1 | 2 | 3 | 5 |
| 257 | 4 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 2 | 4 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 2 |
| 258 | 4 | 3 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 259 | 5 | 4 | 4 | 4 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 2 | 3 | 4 | 1 | 2 | 2 | 1 | 1 |
| 260 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 3 |
| 261 | 5 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 3 | 3 | 4 | 5 | 3 | 2 | 2 | 3 | 3 | 3 | 5 | 3 | 2 | 4 | 2 | 3 |
| 262 | 4 | 4 | 4 | 5 | 3 | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 3 |
| 263 | 5 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 2 |
| 264 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 3 |
| 265 | 4 | 3 | 4 | 5 | 3 | 2 | 5 | 5 | 3 | 4 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 2 | 2 | 2 | 2 | 2 |
| 266 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 2 | 3 | 3 | 3 |
| 267 | 5 | 3 | 5 | 4 | 3 | 4 | 5 | 5 | 4 | 3 | 4 | 5 | 3 | 4 | 2 | 3 | 3 | 3 | 5 | 4 | 1 | 2 | 2 | 5 |
| 268 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 5 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 4 |
| 269 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 1 |
| 270 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 3 |
| 271 | 5 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 4 | 3 | 4 | 5 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 272 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 2 | 2 | 3 | 2 | 2 |
| 273 | 4 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 4 | 4 | 4 | 5 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 3 |
| 274 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | 3 | 4 | 4 | 4 | 5 | 4 | 1 | 2 | 4 | 5 |
| 275 | 5 | 3 | 4 | 5 | 3 | 3 | 5 | 5 | 5 | 4 | 4 | 5 | 3 | 2 | 2 | 3 | 2 | 3 | 4 | 4 | 1 | 3 | 4 | 5 |

| Respondent | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 276 | 4 | 4 | 4 | 4 | 3 | 3 | 5 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 2 | 4 | 5 | 3 | 2 | 2 | 3 | 3 |
| 277 | 5 | 3 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 4 | 5 | 2 | 1 | 3 | 2 | 2 |
| 278 | 4 | 3 | 4 | 5 | 3 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 2 | 3 | 4 | 4 |
| 279 | 5 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 2 | 4 |
| 280 | 5 | 3 | 5 | 5 | 3 | 4 | 5 | 5 | 4 | 3 | 5 | 5 | 3 | 4 | 3 | 3 | 3 | 4 | 5 | 2 | 2 | 2 | 2 | 2 |
| 281 | 4 | 3 | 5 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 5 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 1 | 1 | 2 | 2 | 2 |
| 282 | 5 | 3 | 4 | 5 | 4 | 2 | 5 | 5 | 5 | 4 | 5 | 5 | 3 | 4 | 2 | 2 | 3 | 4 | 5 | 2 | 1 | 2 | 2 | 3 |
| 283 | 4 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | 3 | 4 | 3 | 3 | 4 | 2 | 2 | 2 | 3 | 3 |
| 284 | 5 | 4 | 5 | 5 | 2 | 4 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 2 | 2 | 4 | 3 | 4 | 5 | 2 | 1 | 2 | 2 | 4 |
| 285 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 286 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 2 | 2 | 2 | 2 | 3 |
| 287 | 5 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 288 | 4 | 4 | 4 | 4 | 3 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 3 | 1 | 2 | 4 | 4 |
| 289 | 4 | 3 | 5 | 5 | 3 | 3 | 4 | 5 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 3 | 2 | 2 | 3 | 4 |
| 290 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 3 | 2 | 4 | 3 | 3 | 5 | 2 | 1 | 4 | 2 | 3 |
| 291 | 5 | 3 | 5 | 5 | 4 | 2 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 3 | 3 | 4 | 3 | 3 | 5 | 3 | 2 | 3 | 4 | 4 |
| 292 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 |
| 293 | 4 | 3 | 5 | 5 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 4 | 2 | 3 | 2 | 2 | 5 | 2 | 2 | 2 | 2 | 3 |
| 294 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 1 | 3 | 2 | 4 |
| 295 | 5 | 4 | 4 | 5 | 3 | 4 | 5 | 5 | 5 | 4 | 5 | 5 | 3 | 2 | 2 | 3 | 2 | 3 | 4 | 2 | 1 | 2 | 2 | 2 |
| 296 | 5 | 4 | 5 | 5 | 4 | 2 | 5 | 5 | 5 | 4 | 5 | 5 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 297 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 1 | 2 | 2 | 3 | 1 |
| 298 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 2 | 3 | 4 | 4 |
| 299 | 5 | 3 | 4 | 5 | 4 | 2 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 2 | 2 | 2 | 3 | 2 |
| 300 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 1 | 1 |
| 301 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 3 | 2 | 2 | 2 | 3 | 5 | 2 | 2 | 2 | 3 | 3 |
| 302 | 5 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 1 | 2 | 2 | 3 |
| 303 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 3 | 2 | 3 | 2 | 3 | 4 | 4 | 2 | 2 | 4 | 4 |
| 304 | 5 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 1 | 1 | 2 | 2 | 2 |
| 305 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 2 | 2 | 2 |
| 306 | 5 | 4 | 5 | 5 | 4 | 2 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 2 | 2 | 4 | 3 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 307 | 4 | 3 | 4 | 5 | 3 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 4 | 2 | 2 | 2 | 3 | 2 |
| 308 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 2 |
| 309 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 1 | 3 | 3 | 5 |
| 310 | 4 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 2 | 1 | 3 | 4 | 2 |
| 311 | 5 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 4 | 1 | 3 | 4 | 2 | 1 | 3 | 2 | 2 |
| 312 | 5 | 3 | 4 | 5 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 2 |
| 313 | 4 | 4 | 4 | 5 | 3 | 3 | 5 | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 3 | 2 | 3 | 3 | 3 |
| 314 | 4 | 4 | 4 | 5 | 3 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 5 | 2 | 1 | 3 | 2 | 2 |
| 315 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 2 |
| 316 | 5 | 3 | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 1 | 2 | 2 | 1 | 1 |
| 317 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 2 | 2 | 2 | 2 | 2 |
| 318 | 5 | 4 | 5 | 5 | 4 | 3 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 5 | 3 | 1 | 3 | 4 | 4 |
| 319 | 5 | 4 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 3 | 3 | 5 | 4 | 1 | 2 | 4 | 5 |
| 320 | 5 | 4 | 4 | 5 | 3 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 5 | 3 | 2 | 2 | 4 | 4 |
| 321 | 4 | 3 | 5 | 5 | 4 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 3 | 1 | 4 | 2 | 3 | 5 | 3 | 1 | 4 | 2 | 4 |
| 322 | 5 | 4 | 4 | 5 | 3 | 4 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 2 | 3 | 3 | 3 | 5 | 3 | 1 | 2 | 3 | 4 |
| 323 | 4 | 2 | 2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 4 | 4 | 4 |
| 324 | 5 | 4 | 4 | 5 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 5 | 2 | 1 | 3 | 2 | 2 |
| 325 | 4 | 3 | 4 | 5 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 4 | 2 | 3 | 5 | 3 | 2 | 3 | 4 | 3 |
| 326 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 2 | 4 | 3 | 4 | 5 | 3 | 2 | 3 | 3 | 4 |
| 327 | 5 | 4 | 4 | 5 | 4 | 3 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 3 | 3 | 4 | 3 | 4 | 5 | 4 | 1 | 2 | 4 | 4 |
| 328 | 5 | 5 | 5 | 5 | 3 | 5 | 4 | 3 | 4 | 4 | 3 | 4 | 2 | 2 | 4 | 3 | 3 | 3 | 4 | 2 | 1 | 3 | 2 | 2 |
| 329 | 5 | 4 | 4 | 5 | 4 | 3 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 3 | 2 | 5 | 3 | 3 | 5 | 2 | 1 | 2 | 2 | 2 |
| 330 | 5 | 4 | 4 | 5 | 2 | 4 | 4 | 5 | 5 | 4 | 5 | 5 | 3 | 2 | 4 | 5 | 4 | 3 | 4 | 2 | 1 | 3 | 2 | 2 |

| Respondent | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 331 | 5 | 3 | 4 | 5 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 5 | 2 | 2 | 3 | 3 | 3 |
| 332 | 4 | 4 | 4 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 2 | 2 | 4 | 4 | 4 | 5 | 3 | 1 | 3 | 4 | 4 |
| 333 | 5 | 3 | 5 | 5 | 3 | 4 | 4 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 4 | 2 | 2 | 3 | 4 |
| 334 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 5 | 3 | 2 | 3 | 4 | 4 |
| 335 | 5 | 3 | 5 | 5 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 3 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 336 | 5 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 5 | 3 | 2 | 4 | 3 | 4 |
| 337 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 4 | 1 | 1 | 2 | 1 | 1 |
| 338 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 1 | 3 | 4 | 5 |
| 339 | 4 | 4 | 5 | 5 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 2 | 2 | 4 | 3 | 3 | 5 | 4 | 1 | 2 | 4 | 5 |
| 340 | 5 | 3 | 5 | 5 | 3 | 4 | 4 | 5 | 4 | 4 | 3 | 5 | 3 | 3 | 3 | 4 | 3 | 3 | 5 | 2 | 2 | 3 | 2 | 3 |
| 341 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 4 | 3 | 2 | 2 | 4 | 3 | 4 | 5 | 1 | 2 | 2 | 3 | 2 |
| 342 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 1 | 2 | 4 | 3 |
| 343 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 1 | 4 | 4 | 4 |
| 344 | 4 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 3 |
| 345 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 3 | 4 | 1 | 2 | 2 | 5 |
| 346 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 2 | 3 | 4 | 3 | 2 | 3 | 4 | 1 | 2 | 2 | 5 |
| 347 | 5 | 2 | 3 | 4 | 3 | 3 | 4 | 5 | 5 | 5 | 4 | 3 | 4 | 2 | 1 | 4 | 2 | 4 | 5 | 2 | 1 | 3 | 2 | 3 |
| 348 | 5 | 4 | 4 | 4 | 4 | 2 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 5 | 4 | 4 | 4 | 2 | 1 | 4 | 2 | 3 |
| 349 | 3 | 3 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 3 | 3 | 3 | 5 | 2 | 2 | 3 | 2 | 3 |
| 350 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 2 | 4 | 2 | 1 | 3 | 4 | 3 |
| 351 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 2 | 1 | 2 | 2 | 2 | 4 | 2 | 1 | 3 | 4 | 4 |
| 352 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 4 | 3 | 4 | 5 | 2 | 3 | 4 | 2 | 2 | 3 | 3 | 1 | 2 | 4 | 4 |
| 353 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 1 | 2 | 3 | 2 |
| 354 | 5 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 3 | 2 | 3 |
| 355 | 5 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 2 | 1 |
| 356 | 4 | 3 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 4 | 3 | 4 | 3 | 2 | 1 | 4 | 2 | 4 | 5 | 2 | 2 | 3 | 2 | 2 |
| 357 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 4 | 3 | 3 | 5 | 2 | 1 | 3 | 4 | 3 |
| 358 | 4 | 2 | 2 | 5 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 4 | 5 | 3 | 2 | 3 | 3 | 3 | 4 | 2 | 1 | 4 | 2 | 4 |
| 359 | 5 | 5 | 5 | 5 | 3 | 4 | 4 | 3 | 3 | 5 | 4 | 3 | 5 | 5 | 2 | 2 | 2 | 3 | 4 | 2 | 1 | 3 | 3 | 2 |
| 360 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 4 | 2 | 1 | 3 | 2 | 2 |
| 361 | 4 | 4 | 3 | 5 | 5 | 4 | 4 | 3 | 5 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 5 | 4 | 3 | 2 | 1 | 4 | 4 |
| 362 | 4 | 3 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 3 | 3 | 4 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 2 | 3 |
| 363 | 4 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 3 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 3 | 2 | 3 |
| 364 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 2 | 2 | 4 | 2 | 1 | 2 | 2 | 2 |
| 365 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 2 | 1 | 3 | 2 | 1 |
| 366 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 3 | 2 | 1 |
| 367 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 |
| 368 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 3 | 2 | 2 |
| 369 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | 1 | 3 | 4 | 5 |
| 370 | 3 | 4 | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | 4 | 1 | 4 | 1 | 2 | 1 | 2 | 2 | 3 |
| 371 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 4 | 3 | 4 | 2 | 2 | 1 | 3 | 2 | 2 |
| 372 | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 3 | 2 | 1 | 3 | 2 | 2 | 3 | 1 | 3 | 1 | 2 | 3 | 2 | 2 | 3 | 4 | 4 |

Appendix G: SPSS Results of the Cronbach's Coefficient of Alpha Analysis of the Main Study

```
RELIABILITY
  /VARIABLES=Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL.
```

## Reliability

**Notes**

| | | |
|---|---|---|
| Output Created | | 20-JAN-2017 02:37:39 |
| Comments | | |
| Input | Data | C:\Users\thomaskunleayoola\Documents\WU_PhD\Dissertation\dissertation materials\diss option 1_local content_emp perf_perc org perf\research_final study\main study data analysis\ayoola o main study.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 372 |
| | Matrix Input | C:\Users\thomaskunleayoola\Documents\WU_PhD\Dissertation\dissertation materials\diss option 1_local content_emp perf_perc org perf\research_final study\main study data analysis\ayoola o main study.sav |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| | Cases Used | Statistics are based on all cases with valid data for all variables in the procedure. |

## Scale: ALL VARIABLES

### Case Processing Summary

| | | N | % |
|---|---|---|---|
| Cases | Valid | 372 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 372 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

| Cronbach's Alpha | N of Items |
|---|---|
| .916 | 12 |

### Item Statistics

| | Mean | Std. Deviation | N |
|---|---|---|---|
| Q2 | 3.32 | .678 | 372 |
| Q3 | 3.93 | .765 | 372 |
| Q4 | 4.28 | .785 | 372 |
| Q5 | 3.12 | .673 | 372 |
| Q6 | 3.10 | .712 | 372 |
| Q7 | 4.02 | .867 | 372 |
| Q8 | 4.01 | .821 | 372 |
| Q9 | 3.48 | .832 | 372 |
| Q10 | 3.38 | .697 | 372 |
| Q11 | 3.93 | .877 | 372 |
| Q12 | 4.09 | .864 | 372 |
| Q13 | 3.22 | .594 | 372 |

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| Q2 | 40.54 | 39.570 | .482 | .916 |
| Q3 | 39.92 | 36.382 | .777 | .903 |
| Q4 | 39.58 | 36.719 | .716 | .906 |
| Q5 | 40.74 | 39.464 | .500 | .915 |
| Q6 | 40.76 | 40.374 | .361 | .921 |
| Q7 | 39.84 | 35.618 | .751 | .904 |
| Q8 | 39.85 | 35.560 | .808 | .901 |
| Q9 | 40.38 | 36.533 | .688 | .907 |
| Q10 | 40.47 | 37.937 | .667 | .908 |
| Q11 | 39.93 | 35.526 | .751 | .904 |
| Q12 | 39.77 | 35.217 | .797 | .902 |
| Q13 | 40.64 | 39.632 | .556 | .913 |

**Scale Statistics**

| Mean | Variance | Std. Deviation | N of Items |
|---|---|---|---|
| 43.86 | 44.144 | 6.644 | 12 |

```
RELIABILITY
  /VARIABLES=Q14 Q15 Q16 Q17 Q18 Q19
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE
  /SUMMARY=TOTAL.
```

# Reliability

**Notes**

| | | |
|---|---|---|
| Output Created | | 20-JAN-2017 02:45:22 |
| Comments | | |
| Input | Data | C:\Users\thomaskunleayoola\Documents\WU_PhD\Dissertation\dissertation materials\diss option 1_local content_emp perf_perc org perf\research_final study\main study data analysis\ayoola o main study.sav |
| | Active Dataset | DataSet1 |
| | Filter | <none> |
| | Weight | <none> |
| | Split File | <none> |
| | N of Rows in Working Data File | 372 |
| | Matrix Input | |
| Missing Value Handling | Definition of Missing | User-defined missing values are treated as missing. |
| | Cases Used | Statistics are based on all cases with valid data for all variables in the procedure. |
| Syntax | | RELIABILITY<br>/VARIABLES=Q14 Q15 Q16 Q17 Q18 Q19<br>/SCALE('ALL VARIABLES') ALL<br>/MODEL=ALPHA<br><br>/STATISTICS=DESCRIPTIVE SCALE<br>/SUMMARY=TOTAL. |
| Resources | Processor Time | 00:00:00.03 |
| | Elapsed Time | 00:00:00.04 |

## Scale: ALL VARIABLES

### Case Processing Summary

| | | N | % |
|---|---|---|---|
| Cases | Valid | 372 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 372 | 100.0 |

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

| Cronbach's Alpha | N of Items |
|---|---|
| .752 | 6 |

### Item Statistics

| | Mean | Std. Deviation | N |
|---|---|---|---|
| Q14 | 3.03 | .702 | 372 |
| Q15 | 2.34 | .920 | 372 |
| Q16 | 3.41 | .681 | 372 |
| Q17 | 2.96 | .647 | 372 |
| Q18 | 3.24 | .630 | 372 |
| Q19 | 4.31 | .827 | 372 |

### Item-Total Statistics

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| Q14 | 16.26 | 6.529 | .507 | .712 |
| Q15 | 16.95 | 6.448 | .331 | .774 |
| Q16 | 15.88 | 6.365 | .584 | .693 |
| Q17 | 16.34 | 6.245 | .672 | .673 |
| Q18 | 16.06 | 6.425 | .631 | .685 |
| Q19 | 14.98 | 6.644 | .354 | .757 |

**Scale Statistics**

| Mean | Variance | Std. Deviation | N of Items |
|---|---|---|---|
| 19.29 | 8.838 | 2.973 | 6 |

Appendix H: SPSS Results of the Pearson Product-Moment Correlation of the Main Study

```
CORRELATIONS
  /VARIABLES=perceivedlevelofimplementation PercEmpTaskPerf
PercOrgBusPerf
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

## Correlations

```
[DataSet1]
C:\Users\thomaskunleayoola\Documents\WU_PhD\Dissertation\dissertation
materials\diss option 1_local content_emp perf_perc org
perf\research_final study\main study data analysis\ayoola o var names
main study.sav
```

**Correlations**

| | | perceived level of implementation | PercEmpTaskPerf | PercOrgBusPerf |
|---|---|---|---|---|
| perceived level of implementation | Pearson Correlation | 1 | .403** | .244** |
| | Sig. (2-tailed) | | .000 | .000 |
| | N | 372 | 372 | 372 |
| PercEmpTaskPerf | Pearson Correlation | .403** | 1 | .574** |
| | Sig. (2-tailed) | .000 | | .000 |
| | N | 372 | 372 | 372 |
| PercOrgBusPerf | Pearson Correlation | .244** | .574** | 1 |
| | Sig. (2-tailed) | .000 | .000 | |
| | N | 372 | 372 | 372 |

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

```
CORRELATIONS
  /VARIABLES=perceivedlevelofimplementation
perceivedknowledgeofthetasks perceivedadaptability
    perceivedcooperation perceivedworkquality perceivedworkquantity
perceivedproblemsolvingskills
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

## Correlations

**Correlations**

| | | perceived level of implementation | perceived knowledge of the tasks | perceived adaptability | perceived cooperation | perceived work quality | perceived work quantity | perceived problem-solving skills |
|---|---|---|---|---|---|---|---|---|
| perceived level of implementation | Pearson Correlation | 1 | .294** | .432** | .462** | .135** | .093 | .387** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .009 | .072 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived knowledge of the tasks | Pearson Correlation | .294** | 1 | .467** | .361** | .297** | .229** | .320** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived adaptability | Pearson Correlation | .432** | .467** | 1 | .709** | .334** | .210** | .705** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived cooperation | Pearson Correlation | .462** | .361** | .709** | 1 | .322** | .239** | .650** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived work quality | Pearson Correlation | .135** | .297** | .334** | .322** | 1 | .448** | .269** |
| | Sig. (2-tailed) | .009 | .000 | .000 | .000 | | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived work quantity | Pearson Correlation | .093 | .229** | .210** | .239** | .448** | 1 | .215** |
| | Sig. (2-tailed) | .072 | .000 | .000 | .000 | .000 | | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived problem-solving skills | Pearson Correlation | .387** | .320** | .705** | .650** | .269** | .215** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |

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

```
CORRELATIONS
  /VARIABLES=perceivedlevelofimplementation
perceiveddecisionmakingskills perceivedleadershipskills
    perceivedprofessionalattitude perceivedintegrity
perceivedversatility perceivedmotivation
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

## Correlations

**Correlations**

| | | perceived level of implementation | perceived decision-making skills | perceived leadership skills | perceived professional attitude | perceived integrity | perceived versatility | perceived motivation |
|---|---|---|---|---|---|---|---|---|
| perceived level of implementation | Pearson Correlation | 1 | .337** | .232** | .207** | .312** | .358** | .167** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .000 | .000 | .001 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived decision-making skills | Pearson Correlation | .337** | 1 | .561** | .534** | .731** | .759** | .407** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived leadership skills | Pearson Correlation | .232** | .561** | 1 | .646** | .473** | .520** | .496** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived professional attitude | Pearson Correlation | .207** | .534** | .646** | 1 | .523** | .495** | .490** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived integrity | Pearson Correlation | .312** | .731** | .473** | .523** | 1 | .787** | .382** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived versatility | Pearson Correlation | .358** | .759** | .520** | .495** | .787** | 1 | .463** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived motivation | Pearson Correlation | .167** | .407** | .496** | .490** | .382** | .463** | 1 |
| | Sig. (2-tailed) | .001 | .000 | .000 | .000 | .000 | .000 | |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |

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

```
CORRELATIONS
  /VARIABLES=perceivedlevelofimplementation
perceivedefficiencyofworkprocesses
    perceivedcostperformance perceivedcompetitiveness
perceivedprofitability perceivedgrowth
    perceivedcustomersatisfaction
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

## Correlations

**Correlations**

| | | perceived level of implementation | perceived efficiency of work processes | perceived cost performance | perceived competitiveness | perceived profitability | perceived growth | perceived customer satisfaction |
|---|---|---|---|---|---|---|---|---|
| perceived level of implementation | Pearson Correlation | 1 | .110* | -.066 | .114* | .189** | .252** | .422** |
| | Sig. (2-tailed) | | .033 | .206 | .028 | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived efficiency of work processes | Pearson Correlation | .110* | 1 | .322** | .346** | .407** | .356** | .332** |
| | Sig. (2-tailed) | .033 | | .000 | .000 | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived cost performance | Pearson Correlation | -.066 | .322** | 1 | .284** | .482** | .296** | -.095 |
| | Sig. (2-tailed) | .206 | .000 | | .000 | .000 | .000 | .066 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived competitiveness | Pearson Correlation | .114* | .346** | .284** | 1 | .444** | .550** | .406** |
| | Sig. (2-tailed) | .028 | .000 | .000 | | .000 | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived profitability | Pearson Correlation | .189** | .407** | .482** | .444** | 1 | .561** | .358** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | | .000 | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived growth | Pearson Correlation | .252** | .356** | .296** | .550** | .561** | 1 | .412** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | | .000 |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |
| perceived customer satisfaction | Pearson Correlation | .422** | .332** | -.095 | .406** | .358** | .412** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .066 | .000 | .000 | .000 | |
| | N | 372 | 372 | 372 | 372 | 372 | 372 | 372 |

*. Correlation is significant at the 0.05 level (2-tailed).

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

Appendix I: SPSS Results of the Exploratory Factor Analysis of the Main Study

```
FACTOR
  /VARIABLES perceivedknowledgeofthetasks perceivedadaptability
perceivedcooperation
    perceivedworkquality perceivedworkquantity
perceivedproblemsolvingskills
    perceiveddecisionmakingskills perceivedleadershipskills
perceivedprofessionalattitude
    perceivedintegrity perceivedversatility perceivedmotivation
  /MISSING LISTWISE
  /ANALYSIS perceivedknowledgeofthetasks perceivedadaptability
perceivedcooperation
    perceivedworkquality perceivedworkquantity
perceivedproblemsolvingskills
    perceiveddecisionmakingskills perceivedleadershipskills
perceivedprofessionalattitude
    perceivedintegrity perceivedversatility perceivedmotivation
  /PRINT INITIAL KMO EXTRACTION ROTATION
  /FORMAT SORT BLANK(.45)
  /PLOT EIGEN
  /CRITERIA FACTORS(2) ITERATE(25)
  /EXTRACTION PAF
  /CRITERIA ITERATE(25)
  /ROTATION VARIMAX
  /METHOD=CORRELATION.
```

## Factor Analysis

**KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .922 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 2805.175 |
| | df | 66 |
| | Sig. | .000 |

**Communalities**

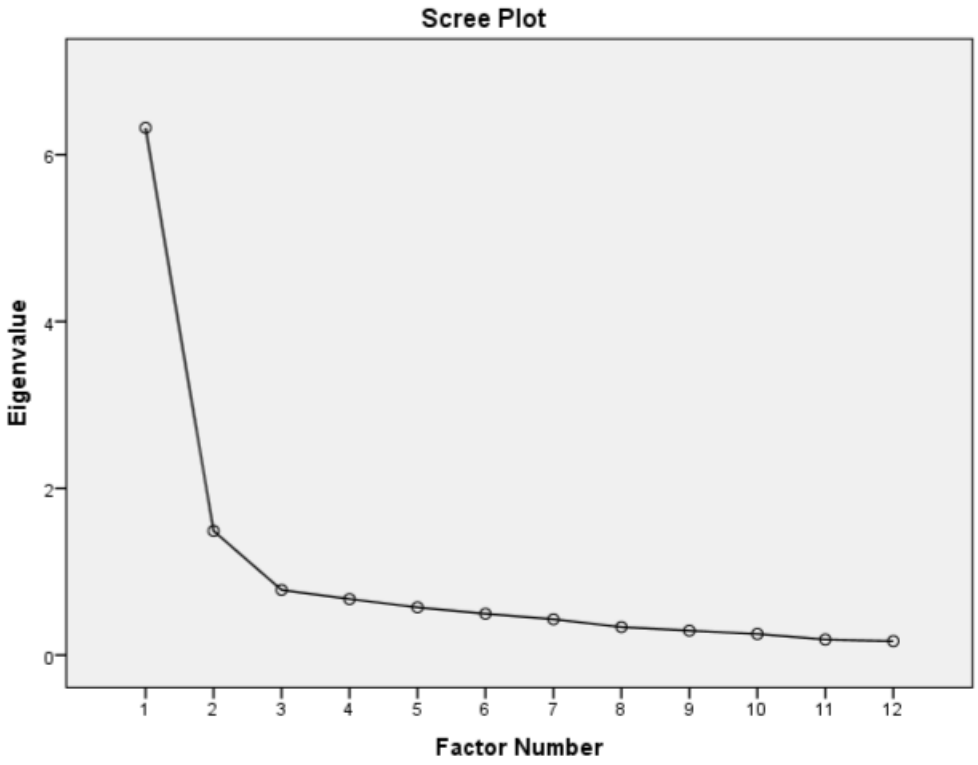
| | Initial | Extraction |
|---|---|---|
| perceived knowledge of the tasks | .294 | .263 |
| perceived adaptability | .690 | .713 |
| perceived cooperation | .586 | .589 |
| perceived work quality | .401 | .522 |
| perceived work quantity | .275 | .303 |
| perceived problem-solving skills | .731 | .746 |
| perceived decision-making skills | .765 | .785 |
| perceived leadership skills | .555 | .610 |
| perceived professional attitude | .529 | .543 |
| perceived integrity | .688 | .695 |
| perceived versatility | .750 | .771 |
| perceived motivation | .418 | .448 |

Extraction Method: Principal Axis Factoring.

**Total Variance Explained**

| | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| Factor | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 6.322 | 52.687 | 52.687 | 5.964 | 49.698 | 49.698 | 4.422 | 36.848 | 36.848 |
| 2 | 1.489 | 12.406 | 65.093 | 1.023 | 8.529 | 58.227 | 2.565 | 21.379 | 58.227 |
| 3 | .782 | 6.514 | 71.608 | | | | | | |
| 4 | .672 | 5.599 | 77.207 | | | | | | |
| 5 | .573 | 4.771 | 81.978 | | | | | | |
| 6 | .496 | 4.133 | 86.111 | | | | | | |
| 7 | .429 | 3.578 | 89.689 | | | | | | |
| 8 | .337 | 2.806 | 92.495 | | | | | | |
| 9 | .293 | 2.442 | 94.937 | | | | | | |
| 10 | .254 | 2.115 | 97.052 | | | | | | |
| 11 | .186 | 1.554 | 98.606 | | | | | | |
| 12 | .167 | 1.394 | 100.000 | | | | | | |

Extraction Method: Principal Axis Factoring.




**Factor Matrix[a]**

| | Factor | |
|---|---|---|
| | 1 | 2 |
| perceived decision-making skills | .857 | |
| perceived versatility | .850 | |
| perceived adaptability | .821 | |
| perceived problem-solving skills | .810 | |
| perceived integrity | .802 | |
| perceived cooperation | .753 | |
| perceived leadership skills | .714 | |
| perceived professional attitude | .688 | |
| perceived motivation | .572 | |
| perceived work quality | .521 | .500 |
| perceived knowledge of the tasks | .496 | |
| perceived work quantity | | |

Extraction Method: Principal Axis Factoring.

a. 2 factors extracted. 7 iterations required.

**Rotated Factor Matrix[a]**

| | Factor | |
|---|---|---|
| | 1 | 2 |
| perceived problem-solving skills | .840 | |
| perceived decision-making skills | .835 | |
| perceived versatility | .828 | |
| perceived integrity | .793 | |
| perceived adaptability | .791 | |
| perceived cooperation | .708 | |
| perceived work quality | | .706 |
| perceived leadership skills | | .661 |
| perceived motivation | | .608 |
| perceived professional attitude | | .602 |
| perceived work quantity | | .544 |
| perceived knowledge of the tasks | | |

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

**Factor Transformation Matrix**

| Factor | 1 | 2 |
|---|---|---|
| 1 | .829 | .559 |
| 2 | -.559 | .829 |

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

```
FACTOR
  /VARIABLES perceivedefficiencyofworkprocesses
perceivedcostperformance perceivedcompetitiveness
    perceivedprofitability perceivedgrowth
perceivedcustomersatisfaction
  /MISSING LISTWISE
  /ANALYSIS perceivedefficiencyofworkprocesses perceivedcostperformance
perceivedcompetitiveness
    perceivedprofitability perceivedgrowth
perceivedcustomersatisfaction
  /PRINT INITIAL KMO EXTRACTION ROTATION
  /FORMAT SORT BLANK(.45)
  /PLOT EIGEN
  /CRITERIA FACTORS(2) ITERATE(25)
  /EXTRACTION PAF
  /CRITERIA ITERATE(25)
  /ROTATION VARIMAX
  /METHOD=CORRELATION.
```

## Factor Analysis

**KMO and Bartlett's Test**

| | | |
|---|---|---|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .736 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 651.815 |
| | df | 15 |
| | Sig. | .000 |

**Communalities**

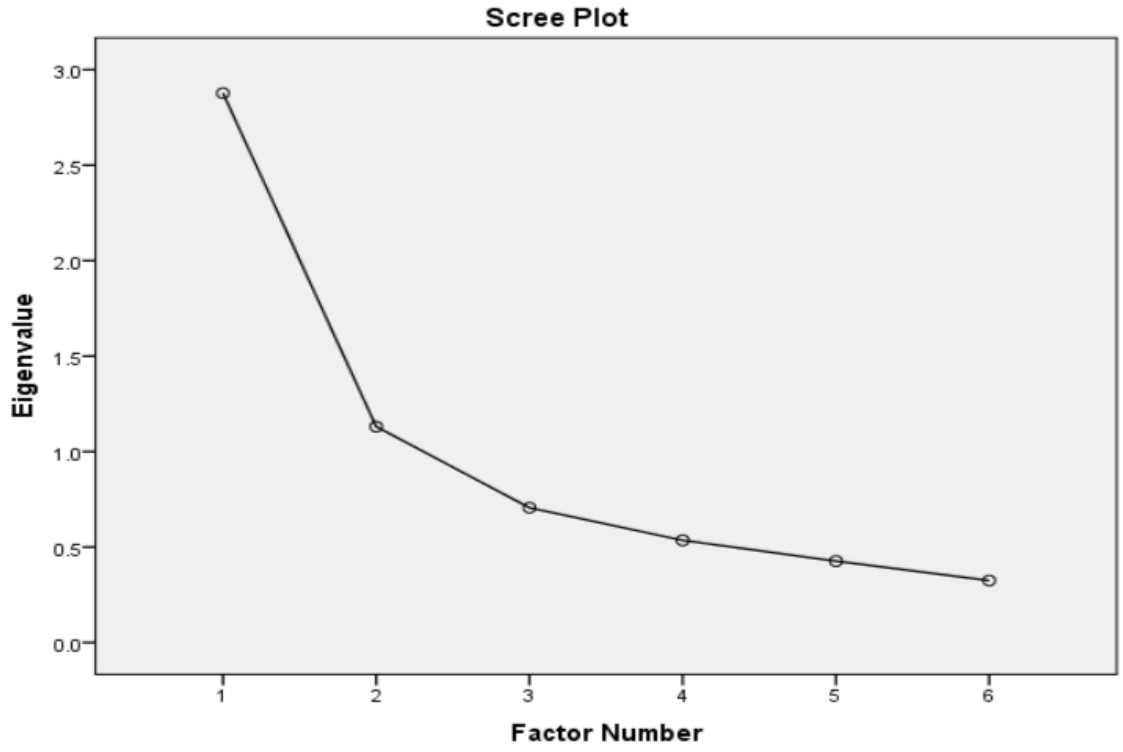
| | Initial | Extraction |
|---|---|---|
| perceived efficiency of work processes | .265 | .294 |
| perceived cost performance | .379 | .842 |
| perceived competitiveness | .381 | .455 |
| perceived profitability | .485 | .567 |
| perceived growth | .449 | .549 |
| perceived customer satisfaction | .374 | .546 |

Extraction Method: Principal Axis Factoring.

**Total Variance Explained**

| Factor | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 2.877 | 47.945 | 47.945 | 2.410 | 40.169 | 40.169 | 1.973 | 32.878 | 32.878 |
| 2 | 1.131 | 18.848 | 66.793 | .843 | 14.053 | 54.223 | 1.281 | 21.345 | 54.223 |
| 3 | .706 | 11.762 | 78.555 | | | | | | |
| 4 | .535 | 8.924 | 87.479 | | | | | | |
| 5 | .427 | 7.110 | 94.589 | | | | | | |
| 6 | .325 | 5.411 | 100.000 | | | | | | |

Extraction Method: Principal Axis Factoring.



**Factor Matrix[a]**

| | Factor | |
|---|---|---|
| | 1 | 2 |
| perceived profitability | .749 | |
| perceived growth | .729 | |
| perceived competitiveness | .661 | |
| perceived efficiency of work processes | .542 | |
| perceived cost performance | .565 | -.723 |
| perceived customer satisfaction | .517 | .528 |

Extraction Method: Principal Axis Factoring.

a. Attempted to extract 2 factors. More than 25 iterations required. (Convergence=.007). Extraction was terminated.

**Rotated Factor Matrix[a]**

| | Factor | |
|---|---|---|
| | 1 | 2 |
| perceived customer satisfaction | .718 | |
| perceived growth | .689 | |
| perceived competitiveness | .633 | |
| perceived profitability | .596 | .460 |
| perceived efficiency of work processes | .466 | |
| perceived cost performance | | .913 |

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

**Factor Transformation Matrix**

| Factor | 1 | 2 |
|---|---|---|
| 1 | .849 | .528 |
| 2 | .528 | -.849 |

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.