

**EXPLANATORY RELATIONSHIPS AMONG EMPLOYEES' PERSONAL
CHARACTERISTICS, JOB SATISFACTION, AND EMPLOYEE ORGANIZATIONAL
COMMITMENT**

by

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Abstract

The objective of this study was to investigate whether employees' personal characteristics moderated the relationship between overall job satisfaction (JS), the independent variable (IV), and the dependent variable (DV) employee organizational commitment (OC). Organizational commitment was measured by affective, continuance, and normative commitment, which are three dimensions of OC. The main research question guiding the study was to what extent does the Herzberg two-factor theory of employee job satisfaction explain the relationship between overall job satisfaction and organizational commitment when moderated by employees' personal characteristics of age, tenure, gender, and marital status. A quantitative nonexperimental research method was applied to examine the research question and test null hypotheses, which stated that employees' personal characteristics did not moderate the relationship between the main IV (JS) and the DVs. The two-factor theory of employee job satisfaction was the theoretical framework used in the study. The relationships between JS and the three components of OC (affective commitment-AC-DV; continuance commitment-CC- DV, and normative commitment-NC- DV) were examined separately through hierarchical multiple regression analysis in which the IVs were entered sequentially into the regression equation and regressed against the DVs. The study was within the U.S. with a sample of 145 employed adults. The results confirmed a positive relationship between JS and AC ($p < .05$), and between JS and NC ($p < .05$); however, there was not a positive relationship between JS and CC ($p > .05$). Also, despite some evidence in the literature, in no case did age, tenure, gender, or marital status moderate the relationship between JS and any of the three components of OC. Nevertheless, questions arose around the composition of the sample used in the study, as well as in those conducted in the developing countries.

Therefore, one recommendation for future studies is to examine the role ethnicity might play in contributing to the conflicting results.

Dedication

The dedication of this dissertation is to my late parents, Bakheit Bosh, and Omdeefan. My parents developed and instilled in us an intellectual curiosity, love, reverence for learning, and taught us the value and importance of pursuing higher education. Also, I dedicated it to my wife, Dr. Tamala Bosh, for her steadfast support, patience, and encouragement during this process. I could not have completed this journey without their love and support.

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CHAPTER 1. INTRODUCTION

Organizational commitment (OC) is a critical management construct and a vital component of organizational success. Committed employees build a relationship with an organization, which results in greater organizational functionality and higher levels of productivity (Çoğaltay, 2015). High productivity can provide an organization with a competitive edge in the global marketplace (Dychtwald, Erickson, & Morison, 2013; Kirkwood & Pangarkar, 2013; P. Kumar, Dass, & Topaloglu, 2014; J.P. Meyer & Allen, 1991). Studies show that when employees experience a sense of overall satisfaction in their workplace, and when they are committed to the organization, morale is higher, and absenteeism and turnover rates are lower (Ngirande & Terera, 2014; Rahman, Akhter, & Khan, 2017). Lack of job satisfaction (JS) and organizational commitment (OC) is a problem for organizations as estimates of the costs related to replacing a departing uncommitted employee range from 33% to 150% of the employee's salary (D. Allen, 2008; Bryant & Allen, 2013; Wilson, 2012). Operating costs are lower when employees experience job satisfaction and organizational commitment.

Scholars observed that a vast corpus of literature exists on JS and OC in the field of business management and organization (Locke, 1970, 1976; J.P. Meyer & Allen, 1991; Osemeke, 2016; Saif, Nawaz, Jan, & Khan, 2012; Tosun & Ulusoy, 2017; Valaei & Rezaei, 2016; Yang & Wang, 2013). While there has been a broad array of literature on the relationship between JS and OC, there has been very little research on the interaction between employees' personal characteristics and OC.

Some literature confirm JS is an antecedent of OC and noted a positive correlation between JS and OC as satisfied employees exhibit a more substantial commitment to the goals and success of the organization (Allen & Shanock, 2013; Dugguh & Dennis, 2014; Frimpong & Wilson, 2013; Mowday, Porter, & Steers, 1982; Ngirande & Terera, 2014; Srivastava, 2013). However, while the relationship between JS and OC is clear, not known conclusively is whether employees' characteristics such as age, tenure, gender, and marital status moderate the relationship between JS and OC by contributing to changes in OC, or whether employees' characteristics are antecedents of OC.

Recent international studies on the subject of JS, employee characteristics (EC), and OC emerged from, among other countries, China (Joo & Park, 2010), India (Mahanta, 2012), Africa (Mensah & Adjei, 2015), and Turkey (Çoğaltay, 2015). The results of the recent international studies carried by Mensah and Adjei (2015), Çoğaltay (2015) were inconsistent, and recommendations were to conduct further studies in the area of JS, EC, and OC as such inquiries might assist in bridging the gap in the JS and OC literature. A goal of this study is to contribute to filling this knowledge gap by testing the ability of the two-factor theory (Herzberg, Mausner, & Snyderman, 1959) for its ability to explain employee organizational commitment, based on the moderating effect of employees' characteristics on the relationship between JS and OC.

Globally, a persistent interest remains steady among organizational leaders, researchers, and scholar-practitioners in understanding relationships among JS, other variables, and OC. The high costs that job dissatisfaction and lack of OC inflict on organizations contribute to the sustained interest in this area of research. Understanding the correlations between JS, employees' characteristics, and OC is of particular importance to organizations (Çoğaltay, 2015; Joo & Park, 2010; Mahanta, 2012; Mensah & Adjei, 2015). Furthermore, the topic continues to be relevant

because persistent changes in the economic environment and workplace affect workers' sense of job security and well-being (Lowe, 2018), which can influence employee's levels of job satisfaction and organizational commitment.

This research study is a partial replication of a correlational study by Mahanta (2012), who investigated the intrinsic and extrinsic dimensions of job satisfaction, overall job satisfaction (i.e., the combination of intrinsic and extrinsic satisfaction), age, tenure, gender, and marital status as antecedents of OC. Mahanta (2012) cited significant limitations of the study, which limited generalizations of the results to the sample; therefore, to generalize the results beyond the sample, Mahanta recommended further studies in this area. This study emerged from Mahanta's recommendation. Participant selection was by random probability sampling from a population of employed adults within the United States (U.S.). Since investigating relationships among variables is a goal of the study, a regression model using hierarchical (sequential) multiple regression is appropriate to analyze the data. This study contributes to—and extends—the literature on JS and OC by examining how employees' age, tenure, gender, and marital status moderate the JS-OC relationship and contribute to variances (i.e., changes) in OC.

The organization of this study is as follows: The focus of Chapter 1 is on explicating the background of the research, identifying the problem that supports the study, articulating the purpose of the study, and discussing the significance of the study to various stakeholders such as organizations, the field of business and management, and scholar-practitioners. Also presented in the first chapter are statements of the research questions, definitions of often used terms, descriptions of the design of the study, and discussions of the assumptions and limitations associated with the design. The chapter concludes with summary remarks. The focus of Chapter 2 is on a review and critique of the literature and a presentation of the related findings.

Explanations of the methodological strategies applied to investigate the problem follow in Chapter 3, as well as reports of the results of the analyses in Chapter 4. Interpretations of the results of the analyses (from Chapter 4) make up Chapter 5, in which discussions of the implications of the results to organizations, the business and management field and specialization, and scholar-practitioners are presented. Also discussed in Chapter 5 are the limitations of the study. The chapter concludes with recommendations for future directions of research.

Background of the Problem

According to Wang, Parker, and Taylor (2013), high job satisfaction (JS) leads to enhanced overall organizational performance through higher employee organizational commitment (OC). Conversely, the absence of JS contributes to undesirable organizational outcomes such as absenteeism and high turnover, which are indicative of a lack of OC. What is known is that a correlation is observed between JS and employee turnover such that when satisfaction is low, turnover is high and *vice versa* (Lu & Gursoy, 2016; Wang, Yang, & Wang, 2012). Employees are tangible assets and represent a firm's intellectual capital as they are repositories of a firm's intangible intellectual property in the forms of their knowledge and talent, which give firms a competitive edge (Todericiu, Lucia, & Stăniț, 2014). Turnover is disruptive; it results in a loss of valuable intangible assets and deteriorations of productivity. Furthermore, turnover increases operating costs, such as those associated with new hire replacement and training expenses (Al-Aali & Teece, 2013; Gialuisi & Coetzer, 2013; Kang, Huh, Cho, & Auh, 2015; Soundarapandiyan & Ganesh, 2015).

Bolden-Barrett (2017) noted that it costs employers 33% of an employee's annual income to hire a replacement if the worker leaves. Other estimates have been as high as 90% to 150% of

the annual salary of the departing employee (Bryant & Allen, 2013; Wilson, 2012). Disturbingly, as reported in the Society for Human Resource Management's (SHRM, 2017) *Job Satisfaction and Engagement* research report, two out of five employees (40%) voiced the likelihood of pursuing employment outside the organization they currently work for within a year. The high turnover rate suggests that (a) job dissatisfaction and lack of organizational commitment might be factors driving turnover intentions among employees, and (b) decision-makers in organizations face significant operational and financial problems, which they must overcome.

Faced with the above challenges, organizational leaders continue to promote job satisfaction (JS) and organizational commitment (OC) among employees, since retaining talented employees better serves the organization's interest (S. Park, Kim, Jang, & Nam, 2014). Also, there is a sustained interest and effort among those in management, the research community, and scholar-practitioners to understand employee job satisfaction and other antecedents of OC (Hollister & Smith, 2014; Kang et al., 2015; Lu & Gursoy, 2016; Masood, Ul-Ain, Aslam, & Rizwan, 2014; Pinho, Rodrigues, & Dibb, 2014; Saif et al., 2012; Srivastava, 2013; Zahoor, Rafiq, Zia, & Rizwan, 2014).

In recent years, a stream of international research on JS and other antecedents of OC emerged from China (Huang & Gamble, 2015; Wang, Caldwell, & Yi, 2015), India (Mahanta, 2012), Africa (Dachapalli, 2016; Mensah & Adjei, 2015), and Turkey (Çoğaltay, 2015). The focus of the studies was on predictive or explanatory correlations between JS (IV), employees' characteristics (IV), and OC (DV). In the researches, some of the employees' characteristics studied included age, education, socio-economic status, gender, marital status, and tenure. The results of the studies were inconsistent and sometimes contradictory, and generalizations of results did not extend beyond the sample used in the study.

In one study, based in India, Mahanta (2012) hypothesized that JS and four personal characteristics of employees (i.e., age, gender, marital status, and tenure) correlated significantly with OC. The study's sample consisted of a total of 120 employees from two industry sectors within the manufacturing industry, located in two separate geographical regions in India. The two sectors represented, and the sample size for each was the telecom sector ($N = 60$), and the oil sector ($N = 60$). Results of the Mahanta study contradicted findings from a similar earlier study by Joo and Park (2010), as well as those of later studies by Çoğaltay (2015); Huang and Gamble (2015); Mensah and Adjei (2015), and Wang et al. (2015). Also, generalizations of the results extended only to the study sample.

Mahanta (2012) cited the narrow representations of industries and lack of industry diversity, the small sample size from each industry sector, and the inability to generalize results beyond the sample as limitations to the study. Small sample sizes can lead to a false-positive finding or conclusion, i.e., type I error, which is the rejection of a true null hypothesis and distorting results (J. Kim, 2019). According to J. Kim, a type 1 error distortion can lead researchers to reject a null hypothesis when the hypothesis is valid (i.e., supported). Because of the study's inherent limitations, Mahanta (2012) recommended future studies with a broader and more diverse range of industries and a larger sample size to understand how employees' characteristics and satisfaction with their job contributed to OC and to generalize results beyond the sample.

Based on the Mahanta (2012) recommendations for more research on JS, employees' personal characteristics (i.e., age, gender, marital status, and tenure), and OC, and also because there is discordance in the literature due to the conflicting results in the area of JS and OC inquiry, this research is a partial replication of the Mahanta (2012) study. The research also

extended the Mahanta (2012) study by investigating the relationships among the same IVs and OC as used in Mahanta's (2012) study but in a different national and more culturally diverse context, which is the United States (U.S.). Mahanta (2012) used standard multiple regression procedures to analyze the data in the Mahanta's (2012) study; however, a regression model using hierarchical processes is the choice for data analysis in this research study. Applying different statistical methods follow replication/partial replication studies (Gómez, Juristo, & Vegas, 2014). Gomez et al. suggested results from this type of analysis test whether the sequential addition of age, gender, marital status, and tenure in the regression equation contributes to an incremental change in the DV. Also, the same theoretical foundation underpinning the Mahanta (2012) study supports this study, which is the Herzberg et al. (1959) two-factor theory of Job Satisfaction.

Researchers recognize replication or partial replication of studies as processes of reexamining and extending earlier research (Gómez et al., 2014; Hornbæk, Sander, Bargas-Avila, & Simonsen, 2014; Makel & Plucker, 2014). Current replication practices focus on constructing multiple measures into past research studies (Easley & Madden, 2013). Makel and Plucker (2014) noted that replication studies help further understanding and contribute to the accumulation of knowledge. Markel and Plucker posited replication studies are becoming more frequent in many disciplines and, most notably, in the behavioral/social sciences. Markel and Plucker contend replication and partial replication studies work as an approach to uncover deception, biases, and weaknesses in research. Gómez et al. (2014) postulated that in partial replication and extension studies, researchers might investigate the same constructs and use the same variables. However, according to Gómez et al., researchers may include other variables, apply different sampling techniques as well as different methods, and conduct the study in

different locations; such is the case for this dissertation study as it was conducted in the United States (U.S), and hierarchal procedures applied to analyze the data.

The Two Factor Theory

Locke (1976) described employee job satisfaction (JS) as the feelings of pleasure an employee has when appraising her job. Herzberg et al. (1959) proposed the two-factor theory, which theorized two factors (motivational and hygiene factors) that contribute to JS. The basic tenet of the Two-factor theory is that intrinsic and extrinsic motivational factors contribute to job satisfaction. Intrinsic factors relate to the inner forces that drive employees to achieve personal and organizational goals. In contrast, extrinsic or hygiene factors relate to the influence of external motivators such as organizational policies, the working environment, as well as interpersonal relationships on the job (Dugguh & Dennis, 2014; Herzberg et al., 1959). When employees experience a combination of intrinsic and extrinsic satisfaction, they experience overall or global job satisfaction (A. Kumar, Abbas, Ghumro, & Zeeshan, 2011; P. Kumar et al., 2014; Mosadeghrad & Ferdosi, 2013; Wanous, Reichers, & Hudy, 1997).

The population of interest in this study is employees in a variety of organizations within the U.S. By extending the Mahanta (2012) study beyond its narrow geographical and industry scope in India to participants in diverse organizations and industries within the U.S.; the study provides a sounder basis for generalizing the results to the population of interest. An expectation in conducting this study is that the results of this study could validate the Mahanta (2012) study or clarify findings from one of the other early researches, and thus contribute to filling the gaps in the literature caused by contradicting results in the JS and OC area of inquiry. Finally, the study may extend job satisfaction theory beyond intrinsic and extrinsic motivators to include personal characteristics as contributors to job satisfaction.

Statement of the Problem

SHRM (2017) reported on employee satisfaction and engagement and revealed as many as 40% of American employees voiced an intention to seek employment outside the current organization they work for within a year. According to SHRM (2017), this high turnover rate might be indicative of low job dissatisfaction and a lack of OC among American workers. Since costs associated with replacing a departing employee range from 33% to 150% of the employee's annual wage (Bolden-Barrett, 2017; Bryant & Allen, 2013; Wilson, 2012), employee turnover represents a high cost to organizations and can affect profitability and diminish their competitive edge. Also, employees are a firm's intellectual capital, which is now regarded as more valuable strategically than financial resources (Darwish & Singh, 2013; Todericiu et al., 2014). Because of the effect of dissatisfaction on employee organizational commitment, employers, as well as researchers and scholar-practitioners, continue to be interested in understanding other drivers of OC (Hollister & Smith, 2014; Y. Hur, 2017; Kang et al., 2015; Lu & Gursoy, 2016; Masood et al., 2014; Pinho et al., 2014; Saif et al., 2012; Srivastava, 2013; Zahoor et al., 2014). Understanding the antecedents of OC will help organizations create strategies to increase employees' organizational commitment (Pearl & Bareinboim, 2014).

Evidence in the literature revealed numerous antecedents to employee organizational commitment (Alegre, Mas-Machuca, & Berbegal-Mirabent, 2016; Osemeke, 2016). scholars stress the strong relationship between employees Organizational Commitment and Job Satisfaction and that a significant driver of Organizational commitment is job satisfaction (Dugguh & Dennis, 2014; Frimpong & Wilson, 2013; Mowday et al., 1982; Ngirande & Terera, 2014; Opong, Tetteh, & Musa, 2016; Osemeke, 2016; Srivastava, 2013). While the relationship between JS and OC is clear, not known conclusively is whether employees' characteristics such

as age, gender, marital status, and tenure are antecedents of OC, or whether these characteristics moderate the relationship between JS and OC such that they contribute to variances in OC. Recent international studies in this area produced conflicting results; therefore, gaps in the JS and OC literature in this area persist.

The problem addressed by this partial replication extension study is the lack of clarity in the recent organizational commitment literature, which showed conflicting results in the relationships between JS, various aspects of employees' characteristics, and employees' OC. These gaps prevent decision-makers, researchers, and scholar-practitioners from fully understanding whether, and to what extent, besides JS, employees' characteristics moderate the relationship between JS and OC.

Purpose of the Study

The purpose of this non-experimental correlational survey research is to test the Two-factor theory of employee job satisfaction, which relates overall job satisfaction (the independent variable-IV), to organizational commitment (the dependent variable-DV), when the third set of IVs, employees' personal characteristics moderate the relationship between JS and OC for participants at diverse organizations within the United States. Overall job satisfaction is a combination of intrinsic satisfaction and extrinsic satisfaction (Mosadeghrad & Ferdosi, 2013; Wanous et al., 1997), and organizational commitment consists of three components: affective commitment, continuance commitment, and normative commitment (Allen & Meyer, 1990).

Significance of the Study

Overall, this study has broad significance to management (i.e., leaders and decision-makers) in diverse organizations within the U.S. The study also has relevance to the field and specialization of business management, as well as to scholar-practitioners.

Significance to Management

In the business management literature, clear evidence suggests (a) job satisfaction (JS) precedes organizational commitment (OC), (b) a positive correlation exists between JS and OC, and (c) satisfied employees feel and display a higher commitment to the goals and success of the organization (Dugguh & Dennis, 2014; Frimpong & Wilson, 2013; Mowday et al., 1982; Ngirande & Terera, 2014; Srivastava, 2013; Yahaya & Ebrahim, 2016). Organizational leaders desire employees who are committed to the goals of the organization as OC contributes positively to the business goals of increased productivity, higher market competitiveness, and profitability (Dychtwald et al., 2013; Kirkwood & Pangarkar, 2013; P. Kumar et al., 2014; J.P. Meyer & Allen, 1991). Lack of organizational commitment results in high operating costs because of higher turnover rates (Bolden-Barrett, 2017).

Expenses related to replacing and training a new employee equates to 33% to 150% of the departing employee's yearly salary (Allen, 2008; Bolden-Barrett, 2017; Bryant & Allen, 2013; Wilson, 2012). Firms benefit significantly when their employees commit to the organization. For example, turnover rates and employee replacement costs are lower, productivity is higher, and managers can allocate the costs associated with recruiting and training replacement employees to other productive uses (Garland, Lambert, Hogan, Kim, & Kelley, 2014; Habib, Aslam, Hussain, Yasmeen, & Ibrahim, 2014; J.P. Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Organizational commitment results in lower operating costs, gains in market share, and profitability.

The relationship between job satisfaction JS and OC is clear; however, because of conflicting results reported in the literature, it is not clear whether, or to what extent, employees' characteristics (i.e., age, tenure, gender, and marital status) moderate the relationship between JS

and OC. The results of this study provide insight to decision-makers on which variables interact with JS to contribute to variations in OC. Employees' characteristics contribute to a wide variety of organizational outcomes (Çoğaltay, 2015; Mahanta, 2012; Mensah & Adjei, 2015). Because of the consequential effects of low OC, the results of this study could help clarify the relationship between the variables and contribute to strategic efforts to enhance OC in organizations.

Organizational leaders and decision-makers often use the results of research to develop business practices geared toward enhanced JS, employee retention, and organizational commitment.

Significance to the Field

Studies of antecedents of OC span decades (Spanuth & Wald, 2017), yet organizational leaders' interest in JS and OC persists (Saif et al., 2012); therefore, new research on the phenomena emerges yearly. Fueling the continued interest in JS and OC is the flux and change in the global and domestic business and economic landscape, as well as demographic and cultural shifts (Hollister & Smith, 2014). Recent international field studies on OC focused on localized regions and small-sized samples from among populations in limited industries. The studies resulted in conflicting findings in the relationship between some personal attributes such as age, gender, marital status, tenure, and employee organizational commitment (Mahanta, 2012; Mensah & Adjei, 2015). The results of earlier research showed differences, which could be attributed to national or cultural distinctions or even to sample size and composition. However, consistent with Mahanta (2012), the earlier research showed that employees' characteristics have no interaction with JC to moderate OC. This study has the potential to clarify conflicting results in the recent JS and OC literature, contribute to the body of knowledge in this area, as well as to extend theory on JS and OC.

Scholar-practitioners. The study can benefit scholar-practitioners in two ways: first, scholar-practitioners can take the current knowledge gained from this study back to their organizations and help shape strategy to improve and enhance job satisfaction and OC. In this way, scholar-practitioners will bring valuable insight to the organization, which may help to reduce turnover by enhancing JS and increasing OC. Secondly, this study could provide scholar-practitioners with valuable insight into how to conduct replication and partial replication studies. Unlike in the natural sciences, there are few replication studies in the social sciences and the field of business, and more is needed (Gómez et al., 2014; Morrison, Matuszek, & Self, 2010). Therefore, as a partial replication study, this methodological approach could contribute to the field in this area.

The Rationale for the Study

Organizations operate in a global economic climate in which they face increasingly competitive markets, operational challenges, and limited resources (Campbell, Im, & Jisu, 2014; Vermeeren, Kuipers, & Steijn, 2014). The scholarly rationalization for this study rested on the topical relevance and significance of the subject to scholar-practitioners and decision-makers in 21st-century organizations, as well as on its potential contribution to the business management field. The study may extend the JS-OC literature, clarify, and illuminate the relationships among the variables as there are conflicting results about the interactions between JS, employees' characteristics, and OC.

Research Questions

While the literature on the effect of job satisfaction (JS) and organizational commitment OC has been extensive, there seems to be a lack of research on whether employee personal characteristics moderate the relationship between JS and OC. Thus, the purpose of this study is

to test the ability of the two-factor theory to explain the relationship between overall job satisfaction, which is the combination of intrinsic and extrinsic satisfaction (A. Kumar et al., 2011; P. Kumar et al., 2014; Mosadeghrad & Ferdosi, 2013; Wanous et al., 1997), employees' characteristics, and organizational commitment (DV). Research questions guided the design of the study, which defined the strategy for answering the research questions. Thus, an omnibus or overarching research question (RQ0), and three subquestions research questions (RQ1, RQ2, RQ3) formed for the study are as follows:

RQ0: To what extent does the Herzberg two-factor theory of job satisfaction explain the relationship between overall job satisfaction and organizational commitment when employees' personal characteristics of age, tenure, gender, and marital status moderate the relationship between overall satisfaction and affective, continuance, and normative organizational commitment for employees in diverse organizations within the U.S.?

RQ1: To what extent is there an explanatory relationship between overall satisfaction and affective, continuance, and normative organizational commitment?

RQ2: To what extent do age and tenure moderate the relationship between overall job satisfaction and affective, continuance, and normative organizational commitment?

RQ3: To what extent do gender and marital status moderate the relationship between overall job satisfaction and affective, continuance, and normative organizational commitment?

The Relationships Among the Variables

Under investigation is the relationship between an IV (overall job satisfaction) and a DV (organizational commitment), when another set of variables (employees' characteristics of age, tenure, gender, and marital status), moderate the relationship between the IV and the DV (Figure 1).

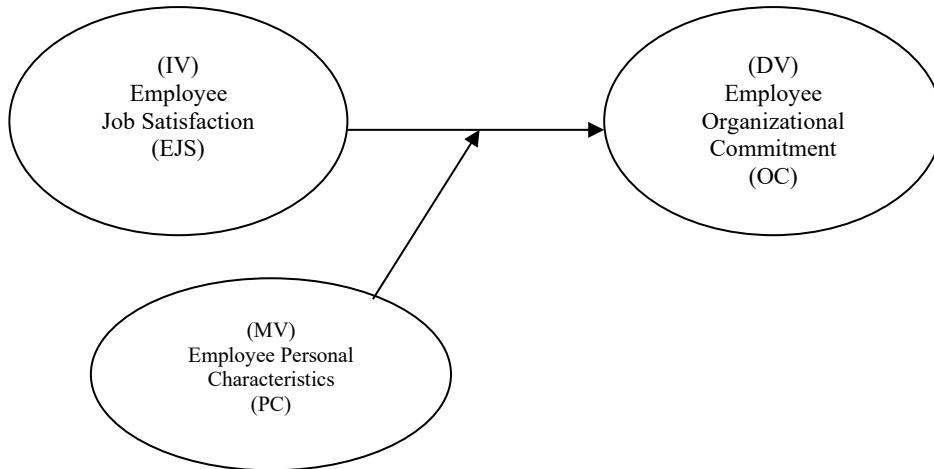


Figure 1. Relationships among the variables.

Tabachnick and Fidell asserted that hierarchical or sequential multiple regression analysis is a regression process in which the researcher enters the IVs into the regression equation in multiple steps as determined by the researcher. Hierarchical multiple regressions processes are appropriate for analyzing the relationship between a set of IVs and a DV (e.g., JS and OC) when the researcher’s interest is in assessing the effect the third set of IVs (e.g., employee characteristics) exerts on the relationship between the primary set of IVs and the DV (Aguinis & Gottfredson, 2010). According to Aguinis and Gottfredson (2010), the third and subsequent sets of IVs are moderating variables (MV).

Definition of Terms

The following ten terms are referenced in the main research question; of these, three are constructs, which are measured by variables. The three constructs are (a) employee organizational commitment (OC), (b) job satisfaction (JS), and (c) employee personal characteristics (PC). The OC construct is measured by three variables: affective commitment, continuance commitment, and normative commitment. The variables *extrinsic* and *intrinsic* job

satisfaction measure the JS construct, and four variables (age, gender, marital status, and tenure) measure employee personal characteristics. The definitions of the constructs and variables and how they are operationally defined are as follows:

Affective commitment. A person's emotional attachment to an organization (Allen & Meyer, 1990). The affective commitment variable is operationally defined as the mean of the item responses for questions 1 – 8 on the Affective Commitment dimension of the TCM Employee Commitment Survey scale.

Continuance commitment. The personal cost of the employee to leave an organization; costs associated with continued employment (Allen & Meyer, 1990). The continuance commitment variable is operationally defined as the mean of the item responses for questions 1 – 8 on the Continuance Commitment dimension of the TCM Employee Commitment Survey scale.

Job satisfaction. “The extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs” (Spector, 1985, p. 2). The job satisfaction construct is operationally defined as the means of the responses to the Intrinsic and Extrinsic Job Satisfaction scales. Data on both scales are collected in response to the statement: “Please circle the one number for each question that comes closest to reflecting your opinion about it”. Responses are as follows: 1 = *disagree very much*, 2 = *disagree moderately*, 3 = *disagree slightly*, 4 = *neutral*, 5 = *agree slightly*, 6 = *agree moderately*, 7 = *agree very much*

Employee organizational commitment. The degree to which an employee identifies with an organization for the alignment of the organization's goals and values with the employees' goals and values, as well as the degree of the employee's desire to work hard and to continue working for the organization (Mowday et al., 1982). The employee organizational commitment construct is defined operationally as the means of the responses to the questions that

measure the variables *Affective Commitment*, *Normative Commitment*, and *Continuance Commitment*. Eight items/questions measure each of the Affective Commitment, Normative Commitment, and Continuance Commitment scales (total items = 24).

Employee personal characteristic. A unique quality or trait that makes a person, thing, or group different from others (Merriam-Webster dictionary, 2018). For this study, the employees' personal construct is measured by four variables: age, gender, marital status, and tenure or length of employment in years (Çoğaltay, 2015; Hollister & Smith, 2014; Joo & Park, 2010; Mahanta, 2012; Mensah & Adjei, 2015). The employee personal characteristics construct is defined operationally as the responses to the questions that measure the variables *Age*: 18 – 65; *Gender*: Male/Female; *Marital status*: Married/Unmarried and *Tenure*: Length of time employed with present organization (Çoğaltay, 2015; Hollister & Smith, 2014; Joo & Park, 2010; Mahanta, 2012; Mensah & Adjei, 2015).

Extrinsic job satisfaction. The employee's feeling of satisfaction about (a) pay and pay raises, (b) fringe benefits, (c) the employee's immediate supervisor, (d) operating conditions such as rules and procedures, (e) co-workers, and (f) communication within the organization (Herzberg et al., 1959; Spector, 1985). *Pay* is operationally defined as the mean of the responses on the Extrinsic dimension of the Employee Job Satisfaction scale by Q1, Q10, Q19, and Q28. *Fringe Benefits* is operationally defined as the mean of the responses on the Extrinsic dimension of the Employee Job Satisfaction scale by Q4, Q13, Q22, and Q29. *Supervision* is operationally defined as the mean of the responses on the Extrinsic dimension of the Employee Job Satisfaction scale by Q3, Q12, Q21, and Q30. *Operating Conditions* is operationally defined as the mean of the responses on the Extrinsic dimension of the Employee Job Satisfaction scale by Q6, Q15, Q24, and Q31. *Co-workers* is operationally defined as the mean of the responses on the

Extrinsic dimension of the Employee Job Satisfaction scale by Q7, Q16, Q25, and Q35.

Communication is operationally defined by the mean of the responses on the Extrinsic dimension of the Employee Job Satisfaction scale by Q9, Q18, Q26, and Q36 (Spector, 1985).

Intrinsic job satisfaction. The employee's feeling of satisfaction about (a) promotion opportunities; (b) the nature of work such as with the type of work done; and (c) contingent rewards related to good performance (Herzberg et al., 1959; Spector, 1985). Intrinsic Job Satisfaction (Appendix D) has three sub-dimensions and is operationalized as follows: (a) *Promotion: satisfaction with promotion opportunities*, (b) *Nature of Work: satisfaction with the type of work done*, (c) *Contingent Rewards: good performance*. (Spector, 1985)

Promotion is operationally defined as the mean of the responses on the intrinsic dimension of the Employee Job Satisfaction scale by Q2, Q11, Q20, and Q33. *Nature of Work* is operationally defined as the mean of the responses on the Intrinsic dimension of the Employee Job Satisfaction scale by Q8, Q17, Q27, Q35. *Contingent Rewards* is operationally defined as the mean of the responses on the Intrinsic dimension of the Employee Job Satisfaction scale by Q5, Q14, Q23, and Q32 (Spector, 1985).

Normative commitment. An employee's feeling of obligation to stay with an organization (Allen & Meyer, 1990). Normative commitment is operationally defined as the mean of the item responses for questions 1 – 8 on the Normative Commitment dimension of the TCM Employee Commitment Survey scale.

Overall commitment. A tri-dimensional concept described as affective commitment, continuance commitment, and normative commitment, the combination of which produces overall commitment toward the organization (Mowday et al., 1982).

Overall job satisfaction. The combination of intrinsic and extrinsic satisfaction an employee felt toward the job and operationally defined as the averaged score for intrinsic and extrinsic satisfaction (A. Kumar et al., 2011; Mosadeghrad & Ferdosi, 2013; Wanous et al., 1997).

Research Design

The research question, which queries relationships among variables, guides the design of the study (Jann & Hinz, 2016). The approach to the study's design is post-positivist, which emerged from positivism. The survey-based design is of a correlational, non-experimental, explanatory, cross-sectional nature (Feldman, 2014; Salkind, 2010). In the positivist paradigm, there is one measurable and objective reality, which is a value-free approach to research rooted in quantitative or numbers-based methods. The focus of positivist research is on investigations of causation of phenomena; researchers conduct this type of study under controlled laboratory conditions and manipulate the variables (Kuhn, 2012). Unlike positivist research, in the post-positivist paradigm, there is no manipulation of variables, research is field-based, and the researcher seeks to uncover correlations among IVs and a DV and not causation of the output. According to Adame and Bisel (2017), post-positivism entails subjective (i.e., qualitative-based) approaches and objective (i.e., quantitative-based) beliefs and assumptions about the nature of reality (i.e., ontology), the role of values in research (i.e., axiology), knowledge and what it means (epistemology), and the methods of information gathering (i.e., methodology), which align with the researcher's philosophy. This study follows the quantitative post-positivist paradigm; there are no discussions concerning qualitative post-positivism.

Quantitative Post-Positivist Design

A fundamental tenet of quantitative post-positivism beliefs is that social reality is quantifiable and knowable, albeit challenging to access (Adame & Bisel, 2017). In the quantitative post-positivist approach to research, the stance of the researcher is objective and values-free (Kuhn, 2012). Therefore, the post-positivist approach is appropriate for this study. For example, the design of this study is:

- Correlational: under investigation are relationships among IVs and an output (i.e., a DV) and not causation of the DV. Correlation analysis is valuable for predicting or explaining variations (i.e., changes) in the DV contributed to by the IVs (Penn & Dent, 2016);
- Predictive/explanatory: the focus on investigations are on changes/deviations in the DV's brought about by the IVs (Penn & Dent, 2016);
- Non-experimental: no manipulation of data and the study is not under controlled conditions (Kuhn, 2012);
- Cross-sectional: the sampling was at one point in time (Salkind, 2010).

Additionally, the use of quantitative methods maintains objectivity. These methods include the application of random sampling techniques to draw the sample, close-ended online survey instruments to gather data, statistics, and other numbers-based means to analyze the data, report the findings, interpret the results, and write up the interpretations (Kuhn, 2012).

Statistical Model

As mentioned earlier, the goal of this study is to investigate relationships (i.e., correlations) among the main set of independent variables (IVs) and a continuous dependent

variable (DV), based on the sequential moderation of other IVs on the relationship between the main IVs and the DV. The regression model is appropriate for this type of data analysis (Penn & Dent, 2016; Tabachnick & Fidell, 2013). Precisely, a multiple regressions hierarchical procedure aligns with the purpose of this study as the effect of the third set of IVs (the moderator variables) on the relationship between the main IVs, and the DV is under investigation (Tabachnick & Fidell, 2013). Multiple regressions analysis is in alignment with the purpose of the study, and with the research questions; therefore, the choice of a regression model, which used hierarchical linear regression analyses, is appropriate (Green, 2015). Since relationships among the IVs and the DV are under investigation, there is an assumption that a statistically significant relationship exists if the size of the interaction effect between the set of IVs and the DV is at the $p < 0.05$ level (Tabachnick & Fidell, 2013).

Assumptions and Limitations

The assumptions significant to the present research revolve around (a) the suitability of the main theory, which is the two-factor theory (Herzberg et al., 1959) to underpin the study; (b) the relevance of the study to the field of business management, academia, and scholar-practitioners, and (c) the philosophical and methodological positioning of the researcher's quantitative post-positivist philosophical orientation to solving the research problem.

Assumptions

Primarily, four types of assumptions guide the study: general methodological, theoretical, topical, and assumptions about measures. These relate to considerations regarding the philosophical orientation of the study, choice of analysis, appropriateness of the sample size, the composition of the sample, the honesty of study participants in answering the survey questions, and the ethical treatment of the study's participants throughout the research.

General methodological assumptions

Assumptions about the approach to this study and its design are that the objective methods and methodology applied to the research align with the quantitative post-positivist paradigm. For example, to maintain consistency with the positivist roots of quantitative post-positivism, the use of random sampling techniques to draw the sample and the use of close-ended measuring instruments to gather data helped to maintain an objective stance during the study (Kuhn, 2012). Other assumptions are that (a) the research participants' selection criteria and the sample size are representative of the population of interest, which consisted of adult employees in organizations in the U.S., and (b) the participants in the survey understood the questions and the instructions provided. A further assumption is that the participants offered honest answers to the survey questionnaire, and the study conformed to acceptable ethical standards of research with human beings. To this end, potential study participants had easy access to an Adult Consent Form, which contained full disclosure of the study and how it might affect them.

Methodologically, an assumption is that the use of a hierarchical multiple regression model to examine correlations among the variables is appropriate, as there is support in the literature for this type of statistical analysis in correlational studies that investigate moderating effects of one set of variables upon the relationship between another set of variables (Green, 2015). A further assumption is that the use of statistical techniques, the Statistical Package for the Social Sciences (SPSS) by IBM^(R) software to analyze the data, and reporting and interpreting the results in objective statistical terms according to accepted APA standards further assures the objectivity of the research.

Theoretical Assumptions

The Two-factor theory of Employee Job Satisfaction (Herzberg et al., 1959) was the primary theoretical foundation of the study. Herzberg et al. (1959). theorized that two factors drove employee job satisfaction and motivation; these factors are (a) hygiene (extrinsic) factors, also called job dissatisfies, and (b) motivator (intrinsic) factors, also called job satisfiers. Herzberg et al. (1959) theorized that hygiene factors are external or environmental job elements, which are crucial for the presence of employee motivation in the workplace; these factors symbolize the employee's physiological needs, which the person wants satisfied. External factors relate to such things as organizational policies, the working environment, as well as interpersonal relationships on the job. On the other hand, motivator factors are internal (intrinsic) to the employee and related to such intangible things as the inner forces that drive employees to achieve personal and organizational goals (Dugguh & Dennis., 2014; Herzberg et al., 1959; Tuch & Hornbæk, 2015).

According to Herzberg et al. (1959), if hygiene factors are absent in the workplace, employees could become dissatisfied. The existence of these extrinsic factors does not lead to positive long-term satisfaction; however, employees require the presence of extrinsic factors to avoid dissatisfaction. In other words, when hygiene factors are adequate or reasonable in a job, these factors can pacify the employees and do not contribute to dissatisfaction. Conversely, the lack of motivators (e.g., internal drive and inspiration) in a job does not necessarily contribute to dissatisfaction; however, their existence generates satisfaction (Tuch & Hornbæk, 2015).

An assumption is that, as shown in the literature, employee job satisfaction (JS) is an antecedent of employee organizational commitment (Dychtwald et al., 2013; Kirkwood & Pangarkar, 2013; P. Kumar et al., 2014; J.P. Meyer & Allen, 1991; Mowday, Porter, & Steers,

2013). A further assumption is that other variables (i.e., age, gender, marital status, tenure) exert an effect on JS to predict or explain variances in OC.

Topical assumptions

The results of many studies show that variables such as leadership style (Mosadeghrad & Ferdosi, 2013), organizational culture (Körner, Wirtz, Bengel, & Göritz, 2015), and human resource management policies and practices influence the relationship between JS and OC. Since there is no clear field understanding whether the same is true concerning the effect of employees' characteristics on the relationship between JS and OC, an assumption is that this research would be of topical interest to decision-makers in organizations, researchers, and scholar-practitioners since, in recent years, several international research efforts on the subject emerged (e.g., Çoğaltay, 2015; Mahanta, 2012; Mensah & Adjei, 2015; Miarkolaei, 2014; Srivastava, 2013), albeit with conflicting results. Indications are that, in the business management and organizational field and literature, current interest in this subject is high.

Measures assumptions

Since the instruments used to collect the data were normed for use in organizational studies and were applied in many other studies measuring job satisfaction (Spector, 1994) and commitment (J.P. Meyer & Allen, 2004), a key assumption is that the measuring instruments are appropriate, reliable and valid for use in the study and that they measured what they are supposed to measure. Upholding these assumptions help to maintain objectivity throughout the research process and in the analysis, reporting, and interpretation of results.

Limitations

Limitations to the study include concerns about the design of the study, which involves the makeup of the sample and important demographics excluded from the study as these could

limit the generalization of results (McGregor, 2018). Delimitations relate mainly to the sample composition and location of the study.

Design Limitations

One design limitation of the study concerns the population, which consisted solely of employees employed at the time of the study, and who were U.S. residents; therefore, results cannot be generalized beyond the U.S. population. A further design limitation of this research is that the data are self-reported. Logically, since the survey was online, and the sample derived from the Qualtrics database, some participants may have been biased in their responses and may have provided what they believed to be more pleasing responses. For example, some of the respondents may have intentionally reported that they fell under one of the categories when, in fact, they did not (Matthews et al., 2016). Emerson, Felce, and Stancliffe (2013) also noted that one of the limitations of self-reporting data is the inability of the researcher to verify the honesty of the participants; thus, checking the accuracy and reliability of respondent's responses to the online questions was not possible. The limitations of self-reporting data also entail some risks to validity. Discussions of recommendations on ways to mitigate these design limitations follow in Chapter 5.

Delimitations

Although the study focused on job satisfaction and commitment among employed adults within the U.S., omitted from the study were part-time employees, working adults who did not have access to the internet, and persons who may have had recent employment experience, but were temporarily unemployed at the time of the survey; their opinions could have been relevant to the study.

Organization of the Remainder of the Study

The focus of Chapter 1 was on presenting an overview of this study. To this end, there was an introduction to the topic and a discussion of the background of the study. This discussion included what is known and unknown about the subject, based on the literature. Included was a statement of the problem and identification of the gap in the literature; also identified were the stakeholders to whom the study was significant and the questions that guided the design of the study. Finally, relevant terms were defined, and assumptions and limitations articulated.

Chapter 2 is a presentation of a review of the literature on job satisfaction (IV) and organizational commitment (DV), as well as the role employee characteristics play in how they affect moderate the relationship between JS and OC. Followed by discussions of the historical background of job satisfaction theories and the central theory, which is the two-factor theory (Herzberg et al., 1959), as well as recent research on the topic. The chapter concludes with assessments and critiques of the findings from the review. Explanations of the methods employed in the study follow in Chapter 3, and Chapter 4 features the results of the analyses. Finally, in Chapter 5, discussions focus on explications of the results from Chapter 4 and how these results reflect evidence from the literature, the implications these results hold for various stakeholders, the limitations of the study, recommendations for future, and concluding remarks.

CHAPTER 2. LITERATURE REVIEW

The purpose of this study is to test the two-factor theory (Herzberg et al., 1959) for its ability to explain the relationship between overall job satisfaction (IV) and the DV, organizational commitment (Myers & Allen, 1997), when employees personal characteristics of age, gender, marital status, and tenure moderate the relationship between job satisfaction (JS) and organizational commitment (OC). Affective commitment, normative commitment, and continuance commitment define organizational commitment (Myers & Alklen, 1997). The theoretical base for this study is the two-factor theory. Accordingly, this chapter focuses on discussions of seminal and contemporary literature on the two-factor theory and the state of JS and OC in the 21st-century workplace. Also presented in this chapter are assessments from the literature concerning the moderating influences of employees' personal characteristics on the relationship between JS and OC. According to P. Kumar et al. (2014), work environment and employees' characteristics influence satisfaction and, by extension, organizational commitment; however, literature reviews for this study presented conflicting reports about these relationships.

An assumption is that this study will contribute to the body of literature on the topic by clarifying the relationships among the variables. Although the focus of the study is on American workers, the review includes significant discussions of international studies on the topic. Since the international studies show mixed results, comparing results from this study with some of the

existing studies could help to surface similarities and differences among these investigations, and also could validate or clarify the existing reports on the subject.

Saif et al. (2012) and others postulated that, from the beginning, the focus of job satisfaction theories were on American and Western European work contexts and may not hold in a non-Western context when measured with instruments created to measure the construct from a Eurocentric perspective. The dissonance in results found in the international literature may be due to the Saif et al. observation. Provided in the following sections are descriptions of the methods used to conduct the review of the literature, discussions of the historical roots of job satisfaction theory, and current information about the relationship amongst JS, employees' personal characteristics, and OC. Included in the chapter are critiques of research in this area and summarizations of the findings on the JS and OC topic.

Methods of Searching

It was necessary to access several databases for the literature review for the study; these databases included those in Capella University's online library, as well as through other Internet sources and peer-reviewed journal articles. The platforms for these databases were ABI/INFORM Collection (formerly ABI/INFORM Global), Business Source Complete, EBSCOhost, ScienceDirect, ProQuest, PsycArticles, Sage Journals Online, Sage Research Knowledge, and Summons. Internet searches, as well as Google Scholar, also yielded relevant peer-reviewed articles. Data mining of published studies dealing with the topic yielded valuable referenced articles, which contributed to the review. Examples of the keywords used in the searches are *affective commitment*, *competitive advantage*, *continuance commitment*, *employee personal characteristics*, *employee organizational commitment*, *Herzberg's two-factor theory*, *intrinsic and extrinsic motivation*, *job commitment theory*, *job satisfaction*, *job satisfaction*

theory, determinants of job satisfaction, and normative commitment. Also, searches included combinations of keywords.

Theoretical Orientation for the Study

The two-factor theory of Job Satisfaction (Herzberg et al., 1959) was the main theoretical foundation upon which this study rested. Herzberg et al. (1959) conceptualized job satisfaction concerning intrinsic (internal to the employee) and extrinsic (external or environmental) motivating factors that, when present within the employee and the work environment, result in job satisfaction. The combination of these two factors produces overall or global job satisfaction (Cheung & Lucas, 2014; Mosadeghrad & Ferdosi, 2013). When employees experience job satisfaction, the results are beneficial organizational outcomes; one of the most significant organizational outcomes is employees' organizational commitment (Ngirande & Terera, 2014). Necessarily, discussions also include commentaries on OC relative to its importance to positive firm outputs.

As previously mentioned, what follows in subsequent sections are examinations of the historical background of job satisfaction theories, discussions of evidence of the relationship between JS and OC, and examinations of studies on interrelations among employees' personal characteristics, JS, and OC. Under examination were critiques of JS theories, and in particular, the two-factor theory. Finally, after reporting the findings and synthesizing the information from the literature review, the chapter ended with summary remarks.

Review of the Literature

The literature review encapsulated the concept of employee job satisfaction (EJS) and organizational commitment and its constructs. The focus of the review was on the topic and analyses of the literature findings on the ability of Herzberg's two-factor theory of employee job

satisfaction (Herzberg et al., 1959) to predict or explain a relationship between the main independent variable (IV), overall job satisfaction (Allen & Meyer, 1996; Herzberg et al., 1959), to the dependent variable (DV), employee organizational commitment (Myers & Allen, 1997), when employees' personal characteristics such as (a) age, (b) tenure, gender, and marital status moderate the relationship between the main IV (JS) and the DV, organizational commitment (OC). The Herzberg two-factor theory of employee job satisfaction (Herzberg et al., 1959) grounded the study. Additionally, the multidimensional approach of Allen and Meyer's (1990) three-component model (TCM) of organizational commitment was relevant to the study. Both sets of theories were appropriate for addressing the issues related to employees' personal characteristics, employee job satisfaction, and organizational performance.

Based on a publication of a book on the subject, Hoppock (1936) received credit for popularizing the term job satisfaction (JS); Hoppock's publication on the topic spurred a spate of studies and theories on the subject, which continues to present-day. Currently, scholars continue to explore factors that contribute to JS and OC relative to the change-infused business environment in which 21st-century organizations operate. For example, the 21st-century workplace is vastly different from that of the early 20th century, which was male-dominated, and distinguished by stability and job-security (Hollister & Smith, 2014; H. Hur & Perry, 2016). Continuous turbulent change and job insecurity characterize the 21st-century business environment. The turbulence is due to the acceleration of globalization, outsourcing, demographic shifts, increased diversity, political, social, and cultural changes that emerged around the middle of the 20th Century (Lowe, 2018; Reinardy, 2012). In fact, according to Jehn, Northcraft, and Neale (1999), "Cultural diversity can be challenging, particularly when it

involves deep-level differences in values and assumptions, rather than solely demographic differences or surface-level characteristics” (p. 8; see also Chuapetcharasopon et al., 2018).

The changes in the business and organizational landscape exert a profound influence on the nature of work, employee well-being, and satisfaction, and this effect is still evolving (Litchfield, Cooper, Hancock, & Watt, 2016). For example, workplace changes affect employees’ sense of justice in the workplace, which can negatively influence their commitment to the organization if employees feel that they are being affected unfairly by the changes (Bayraktar, 2019; Lambert & Paoline, 2008; López-Cabarcos, Machado-Lopes-Sampaio-de Pinho, & Vázquez-Rodríguez, 2015; Sia & Tan, 2016). Also, as business leaders are demanding a highly educated workforce than in earlier generations (Longmore, Grant, & Golnaraghi, 2017), wages are persistently stagnant for today’s workers, while CEO compensation continues to rise, unabated (Kolev, Wiseman, & Gomez-Mejia, 2016). Most often, the effects of these changes on employees manifest in stress, anxiety, feelings of job insecurity, lack of job satisfaction, and low commitment to the organization (H. Hur & Perry, 2016; Lowe, 2018).

The upheavals caused by globalization and economic forces present new challenges for management. For example, reports of a recent SHRM’s (2017) study revealed that 40% of employees voiced an intention to pursue employment outside their organization within a year; also, workers are staying in the workplace beyond retirement age (Toossi & Torpey, 2017; U.S. Bureau of Labor and Statistics, 2017), gender diversity is now well-established in the workplace as more than 40% of heads of households are single working mothers (Wang et al., 2013), and 48% of married spouses work outside the home (Bureau of Labor Statistics, 2015). While job satisfaction theories originated in America and most research on the phenomenon was from a Western or Eurocentric perspective, increasingly, non-Western international researchers are

investigating the effects of job satisfaction and employees' personal characteristics on employees' organizational commitment, with mixed results. Additionally, as shown in the literature, there is no universally accepted definition of job satisfaction, and no consensus found on how to define the concept.

Conceptualization and Definition of Job Satisfaction

Researchers view the concept of JS from one-dimensional (Cheung & Lucas, 2014) or multidimensional perspectives (Özpehlivan & Acar, 2016; Thompson & Phua, 2012), and thus define the construct for overall or global satisfaction, or satisfaction based on several specific criteria or facets. Therefore, there are many definitions of JS (Cantarelli, Belardinelli, & Belle, 2015). For example, Hoppock's (1936) definition derived from Smith's (1776) postulations of JS in multidimensional terms as a combination of psychological, physiological, and environmental factors that inspire employees to say, truthfully, they are satisfied with their jobs. Later on, P.C. Smith, Kendall, and Hulin (1969) described overall or global job satisfaction (JS) as a one-dimensional concept, which is "the feelings a worker has about his job" (p. 100); this conceptualization found support by Wanous et al. (1997) and is often used in JS studies today. Locke (1976) described JS more broadly as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1304). Hackman and Oldman (1979) provided a multi-dimensional description of the construct as being

a cluster of positive and negative dispositions which are acquired and learned through experience, positive or negative attitudes based upon a person's genetic inheritance, an outcome of an individual's construction of his or her workplace reality, experience and mutuality of colleagues and supervisor's evaluation, and an individual's job

characteristics and the extent to which an individual attempts to fit in with these characteristics according to his requirements from a job. (p. 12)

Spector (1985) postulated that JS is “the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs” (p. 2). The definitions reflect Herzberg et al. (1959) conceptualization of job satisfaction about extrinsic and intrinsic motivators that cause satisfaction and, when absent, contribute to dissatisfaction. The definition of JS, as proposed by Spector, is the one used in this study.

In more contemporary definitions, S. Kim (2005) opined that JS is the “affective or emotional response toward various facets of one’s job” (p. 246); once again, this definition seems to capture the internal (i.e., emotional responses) and external conditions (e.g., facets on the job), which promote job satisfaction. Rainey (2009) defined the construct in similar terms, but extended its definition to explicitly specify the effect of positive and negative feelings on job satisfaction for “how an individual feels about his or her job and various aspects of it usually in the sense of how favorable—how positive or negative—those feelings are” (p. 298). While the preceding definitions do not comprise a comprehensive body of JS descriptions, the various formulations that appear in the literature are indicative of the lack of consensus about how to define the concept. The lack of consensus creates difficulties in conceptualizing and measuring the construct (Dugguh & Dennis, 2014; Langer, Feeney, & Lee, 2019).

The Dimensionality of Job Satisfaction

In seminal and contemporary literature, many scholars consider job satisfaction (JS) as one-dimensional (Dugguh & Dennis, 2014; Porter, Steers, Mowday, & Boulian, 1974; Spector, 1997). Historically, the one-dimensional classification of JS has represented a general

description of job satisfaction, measured by single-item instruments, set as global measures (Spector, 1997; Wanous et al., 1997). Others defined it as a multidimensional phenomenon, affected by numerous external and internal elements, personal characteristics, personality, disposition, objectives, job dynamics, and the opportunities presented (DeNobile & McCormick, 2008; Spector, 1997). In agreement with Hoppock's (1936) definition, Dugguh and Dennis (2014) stated that a combination of environmental, individual, and environmental factors affect job satisfaction. The multi-dimensional classification conceptualized the construct in terms of internal and external conditions related to work such as satisfaction with compensation, benefits, promotion opportunities, and the nature of the work (Spector, 1997). The lack of consensus on what job satisfaction is or is not has resulted in the emergence of many different measuring instruments (Dugguh & Dennis., 2014; Langer et al., 2019).

Job Satisfaction Measuring Instruments

Organizations assess job satisfaction among employees for a variety of reasons (Fallatah & Syed, 2018). For example, most businesses operate in change-infused environments (Lowe, 2018; Reinardy, 2012), and employees often resist change; therefore, understanding how changes influence job satisfaction might be a goal of organizations (Fallatah & Syed, 2018). Measures of JS assess general or overall satisfaction or a few critical aspects of the job itself. The most often used JS scales are close-ended quantitative measures, with responses rated numerically. Historically, instruments measuring the JS construct ranged from single-item measures, such as the Wanous et al.'s (1997) global satisfaction instrument, and Kunin's (1995) Faces instrument to multiple-item scales (Cheung & Lucas, 2014). Single scales are composed of two or more questions (e.g., Spector, 1985; Thompson & Phua, 2012). Single-item JS scales gather information on overall job satisfaction. In contrast, multiple item scales measure various facets

or dimensions of the construct, which include internal (intrinsic) and external (extrinsic) environmental considerations (Herzberg et al., 1959).

Single-item scales. Theoretically, a single item scale that operationalizes JS as “overall, how satisfied are you?” captures the intrinsic and extrinsic nature of job satisfaction, since it is the combination of these two conditions that produce overall satisfaction. For example, according to Mosadeghrad and Ferdosi (2013), an employee experiences overall or global job satisfaction when internal and external factors align favorably for the employee. The efficacy of single-item JS questionnaires was determined decades ago. Wanous et al. (1997), and Diamantopoulos, Sarstedt, Fuchs, Wilczynski, and Kaiser (2012) postulated the strength of global satisfaction instrument, faces instrument and single scales instruments are in their unambiguous nature, such that they measure precisely what an organizational leader wants to know fundamentally, which is, primarily, whether the employee is satisfied with his/her job, or not. The unambiguous nature of this scale renders it simple and easy to use, and less time-consuming than multi-item scales. In short, single item scales save organizations time and money to administer (Diamantopoulos et al., 2012; Wanous et al., 1997).

Perhaps the earliest single item employee attitude scale is the Faces questionnaire (Kunin, 1955). In the Faces scale, participants responding to a question such as “how happy are you with your job?” chose a picture of a face to represent their state of happiness from a series of face icons. The Faces scale feature expressions ranging, for example, from *extremely happy* to *extremely sad*; other single items JS scales solicit numerical responses that can range from one to four or higher. For instance, in the General Social Survey dataset (GSS7216_R3), which is a compilation of data on social and work trends in America, a single item measured employees’

state of global/overall job satisfaction with the statement “Job Satisfaction”; response values range from 1 = *very satisfied* to 4 = *very dissatisfied*.

Multi-item summation score scales. Some multi-item JS scales (Table 1) feature as few as two or three items, up to as many as 100 (e.g., the Minnesota Satisfaction Questionnaire - MSQ Long Form). These scales measure employees’ satisfaction with key intrinsic and extrinsic facets related to the job. Examples of these facets might relate to environmental (external) motivators such as satisfaction with pay and pay raises; fringe benefits; the employee’s immediate supervisor; operating conditions such as rules and procedures; co-workers, and communication within the organization (Herzberg et al., 1959; Spector, 1985). Other facets might relate to internal motivators such as the employee’s feeling of satisfaction about promotion opportunities; the nature of work (e.g., the type of work done); and contingent rewards related to good performance (Herzberg et al., 1959; Spector, 1985, 1994, 1997).

Primarily, a bundle of questions captures information on each job facet on these close-ended scales with response values that can range from 1 = *extremely satisfied* to 7= *extremely dissatisfied*. Multi-item scales capture information on individual dimensions/factors that contribute to job satisfaction and dissatisfaction. These factors represent internal and external motivating conditions identified by Herzberg et al. (1959), which they theorized to induce employee job satisfaction. The multi-faceted nature of these scales allows organizational leaders to understand contributors to JS at a granular level. This targeted level of understanding could guide decision-makers in planning strategic initiatives to improve organizational commitment through policies targeted to enhance JS. It is common to average facet scores to obtain a single overall measure of JS. The proliferation of JS scales may have contributed to contradicting results on JS studies (Thompson & Phua, 2012; Wanous & Lawler, 1972).

Table 1. *Job Satisfaction Scales*

Scale	Creator(s)	Items	Description
Minnesota Satisfaction Questionnaire (MSQ) Long Form	Weiss, Dawis, England, and Lofquist (1967)	100	The long-form consists of 20 subscales, while the short form consists of 20 items derived from the long-form. Both questionnaires addressed intrinsic and extrinsic satisfaction.
Also, MSQ Short Form		20	
Job Descriptive Index (JDI)	Roznowski (1989)	72	Updated from the original by P.C. Smith et al. (1969). Measures 5 facets (the work itself, pay, promotions, supervision, and coworkers)
Job Diagnostic Survey	Hackman and Oldham (1974)	15	Measures overall and facet-specific job satisfaction. Meant to be used before and after job design-redesign by measuring motivational properties in the job.
Job Satisfaction Index	Schriesheim and Tsui (1980)	6	Includes single questions to evaluate the job, in general, the degree of satisfaction with the supervision, co-workers, pay, work itself, and promotion opportunities. Averages to a single measure
Overall Job Satisfaction (part of the Michigan Organizational Assessment Questionnaire (OAQ))	Cammann, Fichman, Jenkins, and Klesh (1983)	3	= All in all, I am satisfied with my job = In general, I don't like my job (R) = In general, I like working here (N.B. Items denoted with (R) are reverse scored). Averages to a single measure.
Job Satisfaction Survey	Spector (1985)	36	Assesses employee attitudes about the job and aspects of the job; describes nine job facets (4 items per facet)
Job in General Scale	Ironson, Smith, Brannick, Gibson, and Paul (1989)	18	Can be used with the Job Descriptive Index (JDI), which uses five facets to assesses satisfaction
Job Satisfaction Relative to Expectations	Bacharach, Bamberger, and Conley (1991)	5	Useful in evaluating the extent to which job stresses, role conflicts, or role ambiguities prevent job expectations from being satisfied. Averages to a single measure.
Overall Job Satisfaction	Judge, Boudreau, and Bretz (1994)	3	Averages to a single measure

Dugguh and Dennis (2014) postulated that, because of the multi-faceted nature of the JS construct, JS theories are prevalent. In the next sections, discussions of the two-factor theory (Herzberg et al., 1959), as well as other theories of employee job satisfaction, follow. First, discussions on the root development of job satisfaction theories provided historical background and context for the theoretical discussions that follow.

Theories of Job Satisfaction

Although not a goal of classical organizational and industrial theorists, many job satisfaction theories emerged from some of the early time and motion studies of the 20th Century. Researchers such as Frederick Winslow Taylor (1911), known as the father of the scientific management movement of the early 20th Century, and Frank Bunker Gilbreth (1868-1924) and Lillian Moller Gilbreth (1878-1972) applied scientific methods to workplace tasks to increase worker productivity. Primarily, the perspective of the employee was not of primary concern to early 20th-century managers; rather, increased efficiency, saving time, and increasing productivity was the focus of early research efforts (Pryor, Humphreys, Oyler, Taneja, & Toombs, 2011). In these early organizational studies, the view of the organization was of a machine, and workers were replaceable cogs in these machines of industry (Morgan, 1998). The motivational aspects of the organizational theory were important only insofar as they explicated ways to encourage employees to be more productive; from this goal, time and motion studies included investigations of the effect of increased wages on workers' motivation (Su, 2017).

Frederick Taylor (1911) observed that under the wage systems of his day, workers put as little effort as possible in their work, and there was no incentive for productive workers to perform above their low-performing peers; therefore, Taylor designed a wage system based on differential piece-work rates (Su, 2017). Two different pay scales comprised the differential rate

system: a fixed low-wage rate for low-performing employees, and a higher wage for higher performers. The differential wage system allowed efficient workers to increase their pay, based on their efforts and output. Furthermore, Taylor advocated a carrot-and-stick approach to motivating employees: he proposed that, besides higher wages, hardworking employees should be rewarded with job promotions, bonuses, and other incentives (the carrot), while poor performers punished with the lower wages, or even dismissal (the stick). The promise of higher wages and other rewards were motivating factors, which, Frederick believed, induced job satisfaction. Empirical evidence from the results of this new system led Taylor to postulate that money motivated employees, produced job satisfaction, and increased worker productivity.

Frank and Lillian Gilbreth were early advocates of Frederick's scientific management techniques and developed their theories concerning employee motivation and job satisfaction. However, since the focus of scientific management was on increasing employee efficiencies and productivities through the most effective use of movement in job tasks, which reduced the time to complete a job, unions accused these early scientific management theorists of attempting to transform workers into automatons. According to Price (1989), faced with sustained attacks from various unions, Frank and Lillian Gilbreth deliberately introduced consideration of the "human element" (as cited in Price, 1989, p. 4) in defending their time and motion studies. Frank and Lillian Gilbreth proposed such practices were essential motivators in the workplace, allowing the worker to experience job satisfaction by increasing wages through higher amounts of piece-work output.

By the 1950s definitions of the term, motivation began appearing in the literature. For example, although no consensus has been observed on how to define motivation (Elias, Smith, & Barney, 2012), in the mid-20th Century Alderson (1955) defined motivation as "a conscious

experience or subconscious condition, which serves as a factor determining an individual's behavior or social conduct in a situation" (p. 6). These early works stimulated an enduring interest in the role motivation played in job satisfaction and worker productivity. For example, 21st-century decision-makers across all fields of the industry continue to be interested in understanding employee behaviors and how to motivate workers (Fallatah & Syed, 2018). However, decades earlier, in the 1920s, one of the most influential motivational studies that emerged is what researchers refer to as the Hawthorne Studies.

The Hawthorne Studies

In 1924, the National Research Council launched a set of experiments at the Western Electric Hawthorne Plant, located in Cicero, Illinois (IL). In efforts to understand how to increase productivity, researchers investigated the effect of different levels of lighting on workers' output. Although the results of the studies were not published, reports were that, to the puzzlement of the researchers, every time there was an adjustment to the lights, worker productivity improved, regardless of the direction of the adjustment. In the nine years after the research, Western Electric conducted a series of other studies to test the puzzling results of the original study.

As in the original studies, women comprised the sample from the population of employees at that electrical plant. In these studies, results seemed to confirm the rise of productivity, despite changing environmental lighting conditions. In summarizing the results, Freedman, Sears, and Carlsmith (1981) observed that "Regardless of the conditions, whether there were more or fewer rest periods, longer or shorter workdays ... the women worked harder and more efficiently" (p. 49). Researchers theorized a phenomenon, which they termed the Hawthorne effect to account for the bewildering results.

The Hawthorne Effects. According to the Hawthorne effect theory, participants' responses to the changes in the environment during the Hawthorne studies were not truthful but based on their desire to please the test administrators by providing the responses they thought the test administrators desired. Also, participants were aware that their behaviors and actions were under observation, which motivated the study participants to put forth their best efforts by increasing productivity (Levitt & List, 2011).

According to Levitt and List, there was never a formal analysis of the original studies' results, and there was a general belief in the research community that the data from the study no longer exist. Nevertheless, according to Levitt and List, the influence of the studies' results on social science research was profound. A search in the Sage database using the keywords Hawthorne studies for the period 2013 – 2019 produced over 1,280 results, a testament to the persisting interest in understanding employee motivation and study participants' truthfulness in responses to survey questions.

In the decades after the Hawthorne studies, other needs-based motivational studies emerged, which further informed job satisfaction research and shifted the focus from a management perspective to consideration of the employees' needs and understanding ways to motivate and satisfy them. Around the time of Hoppock, Murray (1938), a classical motivational theorist, defined *need* as a force and a stimulus that pushes persons in certain directions or causes them to behave in a certain way. Sattar, Khan, Nawaz, and Afaq (2012) stated that, across the literature, JS theories are grouped by the nature of the theories, or by chronological order. In a retrospective view of classical theories, Tuan (2011) proposed that motivational theories of job satisfaction fell into one of two classifications: (a) content and needs models and (b) process models.

Content and Need Models

Content and needs theories address the basis of human beings' motivation. Content theories describe the elements that drive and motivate persons, while process theories emphasize how different individual factors affect individual behavior (Turabik & Baskan, 2015). Earlier, J.P. Campbell, Dunnette, Lawler, and Weick (1970) proposed that the focus of content theories is on the question of what motivates individuals intrinsically. According to Tuan (2011), the main tenet of these theories is that "when the employee's job contains sufficient 'content' variables" (p. 54), high motivation and job satisfaction result. Tuan conceptualized content variables in terms of skills variations and degree of job-related challenges. Tuan further posited that the process view is rooted in expectancy theory and focuses on "the worker's perceived relationship between effort, reward and performance and the influence of this relationship on motivation" (p. 54).

Locke (1976) noted that content theories seek to describe job satisfaction concerning needs, which must be satisfied or the achievement of specific principles. Examples of content theories of job satisfaction are Maslow's hierarchy of needs (Maslow, 1954), the Two-factor theory (Herzberg et al., 1959), and Alderfer's (1972) theory of existence, relatedness, and growth (ERG). In an organizational context, embedded in these needs/content theories is a recognition that satisfaction of internal and external motivating factors leads to employee job satisfaction. Accordingly, Tuan (2011) and Kanfer (1992) reclassified content and process theories into "distal" and "proximal" categories. Theories that are figuratively distant from the workplace are distal; examples are "personality, environmental conditions impacting on psychologically-based motives and cognitive choice"; constructs alleged to have a direct impact on work performance fall into the proximal category, such as Locke's (1968) goal-setting theory (p. 54).

Process Models

The process perspective relates to the employee's evaluations of the benefits and disadvantages of engaging in a job (Tuan, 2011). Process theories are concerned with why and how motivation develops, and the cognitive or thought processes that influence human behavior to result in satisfaction (Fallatah & Syed, 2018; Kian, Yusoff, & Rajah, 2014). Proponents of process theories seek to describe job satisfaction concerning how some types of variables, such as how expectancies, ideals, and requirements, related to job satisfaction. According to Tuan (2011), the process perspective is one in which the outcomes of motivation and job satisfaction depend on content variables as well as on the pros-and-cons evaluations (i.e., expectations-related considerations) that employees make in undertaking a job. The process theory perspectives find roots in expectancy theories (Tuan, 2011). Examples of classical process theories are: inducements-contributions theory (Barnard, 1938), need satisfaction theory (Porter, 1961), and subtractive and multiplicative models of job satisfaction (Vroom, 1964). According to Sahito and Vaisanen (2017), the major process theories are Skinner's reinforcement theory, Vroom's expectancy theory, Adam's equity theory, and Locke's goal-setting theory.

Apart from the contribution made by the scientific movement to motivational studies, J.D. Meyer, Faber, and Xu (2007) threw light on theories of human motivation and opined that such studies emerged from psychodynamic theory and behaviorism in the early 20th Century. These were two dominant influences on American psychology, and, according to J.D. Meyer et al. (2007), initially, the focus of these studies was on human biology as the propellant of human needs. For example, Sigmund Freud (1915/1963) first hypothesized that reproduction and sex underpinned an individual's basic physiological needs. According to J.D. Meyer et al., contemporaneous with Freud, Ivan Pavlof theorized on unconditional stimuli as motivating

factors and identified “basic physiological necessities such as food, drink, and safety” (J.D. Meyer et al., 2007, p. 84) as motivators that leading to satisfaction. While scholars acknowledge the early industrial and psychology theorists’ contribution to job satisfaction theory through motivational studies, one of the most influential theories of motivation that emerged during the mid-20th Century was Maslow's (1943) Hierarchy of Needs model.

Maslow’s Hierarchy of Needs Theory (1943): A Content and Needs Theory

Maslow’s Hierarchy of Needs model falls under the content and needs classification and, initially, was situated in the field of psychology and did not address job satisfaction, but life satisfaction. Maslow proposed the presence of five hierarchically ordered needs-conditions unique to human beings, which range from lowest needs (level 1) to highest need (level 5). The satisfaction of each need, beginning with the lowest level, motivates the individual to strive to satisfy the subsequent need until he or she achieves the fifth or transcendental level; at this point, the individual is fully autonomous, self-actuated, and enjoys full life satisfaction. Ordered from lowest (1) to highest (5), these five needs conditions are:

1. Physiological needs (air, food, water, clothing, shelter, sleep, sex, and other bodily needs),
2. Safety needs (protection from bodily and emotional harm),
3. Social needs (friendship, belongingness, acceptance, friendship),
4. Esteem needs (internal: self-respect, autonomy, achievement, external: status recognition, attention).
5. Self-actualization needs (self-fulfillment, personal growth, the achievement of one’s fullest potential). (Maslow, 1943)

In elucidating the first and second levels of basic needs, which relate to sex and other biological concerns (level 1), and safety (level 2), the influences of Freud and Pavlov are evident in Maslow's theory of needs. According to Shahrawat and Shahrawat (2017), the fulfillment of the basic level needs is necessary for survival; once satisfied, the secondary need to be safe comes into focus. At the tertiary levels, a presumption is that having met the preceding two needs, the individual becomes concerned with the need to develop personal relationships and to fit in socially. Once satisfied, the individual's focus is on satisfying the need to be respected by his/her peers, and to be recognized and acknowledged for achievements; this attention is vital to the individual's self-esteem. At the fifth level, the individual experiences personal and spiritual growth and feelings of having achieved his/her fullest potential. The hierarchy of needs address two types of conditions: deficiencies (levels 1-4) and growth (level 5). According to the Maslow model, the first four levels of needs address deficiencies that, once met and satisfied, results in a very high level of personal growth. Organizational theorists quickly recognized the efficacy of applying the Maslow model to organizational contexts and interpreted the needs levels relative to employees and the workplace (Figure 2).

Kaur (2013) opined that the value of the model's application to organizations is it allows managers a new way of assessing employees' attitudes and motivations and provides guiding principles for developing autonomous, self-actualized employees. According to Kaur, actualized employees are at their highest level of creativity; at this level, the employee experiences total or overall job satisfaction, and organizational commitment is very strong.

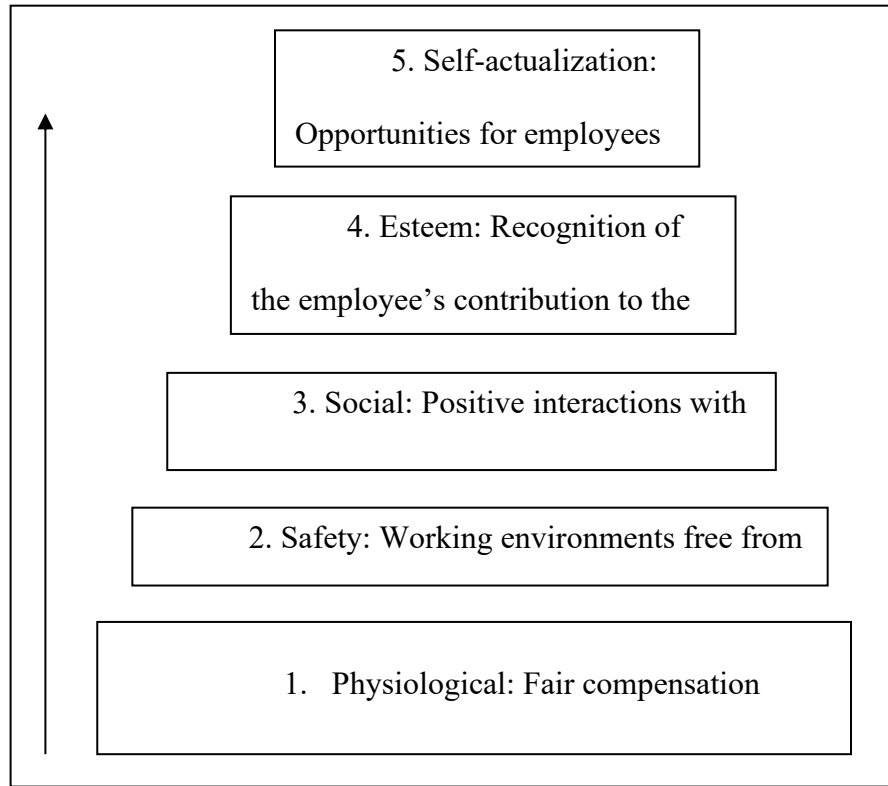


Figure 2. Conceptual model of Maslow's hierarchy of needs model.

Organizational leaders help to satisfy first level needs when they compensate employees fairly, as this allows employees to provide for their basic needs for essentials such as food, housing, and clothing (Kaur, 2013). Adequate pay also addresses safety needs when the employee can find accommodation in a safe environment. In a workplace context, a work environment free from physical or emotional harms and one in which the employee does not fear retribution or experience injustice addresses safety needs. Figure 2 is a representation of the five hierarchical levels of needs when applied to an organizational context from lowest (1) to highest (5).

When the organization encourages socialization through group activities such as family picnic days, these opportunities to socialize help to meet the third needs level. Organizational

events in which occur recognition and appreciation of employees' contributions to the firm support to satisfy fourth level needs; salary increases, awards, and bonuses are forms of appreciation. Finally, when managers allow employees full participation and voice in their work and encourage employees to be creative, the employee becomes self-actualized, experiences the highest satisfaction, and becomes deeply committed to the organization.

Although Maslow's need hierarchy theory of motivation resonated across many disciplines and provided the foundation for a wide array of thoughts in the discipline of psychology, some scholars laid ample criticisms of the theory, as discussed in the following section.

Criticism of the Maslow Model

Criticisms of the Maslow model emerged early. As early as the 1960s, charges were levied against the theory because by then, there was no empirical support for it in the literature (Schermerhorn, Hunt, & Osborn, 1997), and this criticism persists (Sahito & Vaisanen, 2017). Centers and Bugental (1966) opined that too many variables influence persons' needs, expectations, and situations, which the theory did not address. Kaur (2013) postulated that the theory fell short of its promises of self-actualization (level 5) following the satisfaction of all preceding needs. According to Kaur, although research supported the distinctions between deficiency needs and growth needs, there were no guarantees of satisfaction of higher-level needs after the satisfaction of lower needs. To Arnolds and Boshoff (2002), a limitation of the model was its simplistic, intuitive appeal, "which has led to difficulties in providing fluent and consistent empirical evidence for the utility of the theory" (as cited in Park, Ko, Kim, Sagas, & Eddosary, 2016, p. 1018). The simplicity of the theory lies in the intuitive assumption that needs flow in an upwardly linear direction; however, other researchers disagreed and postulated that

needs were fluid, could flow in any direction, and differ from day to day (Sahito & Vaisanen, 2017).

Despite the apparent limitations of Maslow's theory, according to Jerome (2013), researchers still hold it in high esteem. For example, a search of the SAGE Journals database in the Capella library using the keywords “Maslow” and “hierarchy of needs” returned 608 peer-reviewed articles for the period 2011-2019, adding “job satisfaction” to the search terms returned 245 articles for the same period. After Maslow’s theory, several classical job satisfaction models emerged, which include the Two-Factor Theory of Employee Job Satisfaction (Herzberg et al., 1959), Vroom’s Expectancy Theory of Motivation (Vroom, 1964), and the Affective Events Theory (Weiss & Cropanzano, 1996).

Herzberg Two-Factor Theory

Influenced by Maslow’s theory, Herzberg et al. (1959) hypothesized that two factors drive motivation and employee job satisfaction; these are (a) hygiene (extrinsic) factors, also called job dissatisfiers, and (b) motivator (intrinsic) factors, or job satisfiers; intrinsic motivators might be more efficacious than extrinsic motivation (Cho & Perry, 2012). Amabile (1993) formally defined intrinsic motivation as the enjoyment, interest, satisfaction of curiosity, self-expression, or personal challenge employees experience in work and extrinsic motivation as employees’ engagement in work to obtain some goal that is apart from work itself.

Extrinsic (hygiene) factors. Herzberg et al. (1959) theorized that hygiene factors are external or environmental job conditions crucial for satisfying the employee’s motivational needs in the workplace environment; these factors symbolize the employee’s physiological needs. External factors relate to such things as compensation, benefits, supervision, operating conditions, interpersonal relationships on the job with co-workers, and organizational

communications (Spector, 1985). For example, according to Spector, employees feel dissatisfied when they feel they are not being paid fairly for their work and the raises are too few and far between, or when they feel underappreciated by the organization as reflected in their pay and chances of receiving a raise. Conditions that feed dissatisfaction include unhappiness with benefits, feelings that other organizations deliver better and more inequitable benefits packages, and lack of benefits important to the employee.

Further examples of extrinsic factors have to do with employees' feelings about the competence and fairness of their supervisors, as well as the supervisor's interest in subordinates. Organizational policies, politics, and rules are extrinsic factors affecting satisfaction if they cause employees to feel hampered from doing a good job (Dugguh & Dennis, 2014; Spector, 1985). For instance, too much red tape, too many tasks, and feelings of overload from too much paperwork are extrinsic factors that can create dissatisfaction (Dugguh & Dennis, 2014). Also, if the employee does not like her co-workers, feels she has to work harder because of incompetent co-workers, or works in an environment fraught with bickering and infighting, dissatisfaction results. Furthermore, poor communication within the company, unclear organizational goals, the feeling of not knowing what is going on in the organization, and ambiguous work assignments contribute to dissatisfaction (Spector, 1985). When external factors align with the employee's expectations, the employee feels satisfaction. However, this association is not as straightforward as it might seem at first glance.

Efforts to create greater satisfaction in employees began in earnest in the 1970s when interest in job enrichment efforts emerged as employers sought ways to increase employee motivation and satisfaction in the work environment (Giancola, 2011). At the time, experts postulated that enriching the job by redesigning it and its associated tasks would make work

more challenging and rewarding as studies at the time showed employees found their jobs boring, unchallenging, and meaningless (Giancola, 2011). In other words, the nature of the work did not produce intrinsic motivation such that employees felt connected and aligned with the goals of their organizations.

According to Giancola, studies on job enrichment among varied industry sectors produced starkly different results. For example, interesting and challenging work was of no interest among blue-collar workers, who preferred better pay. Conversely, white-collar workers were more interested in interesting and challenging work and felt it outweighed the higher pay. In other studies, results varied according to firm size. Dugguh and Dennis (2014) postulated that employees prefer working in firms that follow the best human resource management (HRM) practices and policies. In large firms, HRM practices and policies are highly developed and more formalized than in small firms. Although Dugguh and Dennis stated that communications were one of the most important aspects of an employee's work-life in modern organizations, in a study on HRM and employee motivation in small firms (i.e., < 50 employees) before and after the Great Recession, employees experienced greater extrinsic communication with more informal communication (i.e., less formalized HRM policies and procedures). When small businesses adopted leaner and more formal HRM practices during and post-recession, these formal communications correlated negatively with JS so that there was less extrinsic motivation (Bryson & White, 2019). In other words, extrinsic motivators in one firm may be dissatisfiers in another.

Intrinsic (motivator) factors. On the other hand, motivator factors are internal (intrinsic) to the employee and related to such intangible things as the inner forces, which drive employees to achieve personal and organizational goals (Dugguh & Dennis., 2014; Herzberg et al., 1959; Tuch & Hornbæk, 2015). Intrinsically motivated employees feel a strong affinity to the

organization and feel their goals and values align with those of the organization (Sahito & Vaisanen, 2017). For example, if the employee feels satisfied that opportunities for promotion are fair and hard work and good job performance leads to advancement, or that getting ahead in the organization is comparable to other places, the employee feels intrinsically motivated.

According to Bhatia and Purohit (2014), another term for motivators is “content factors” (p. 150) because of the direct relation to the content and nature of the job itself, which influences the enjoyment of the job tasks. For example, a sense of internal enjoyment, purpose, meaningfulness, and pride in the job motivates and satisfies the employee when the job is interesting, and the employee likes performing tasks related to the job (Spector, 1985). Recognition and expressions of appreciation for doing a good job with awards and bonuses make the employee feel valued (Kaur, 2013). Being trusted with increasing responsibility through promotions generates a sense of achievement within the employee, which increases job satisfaction (Bhatia & Purohit, 2014); when the employee does not experience these intrinsic motivators, dissatisfaction results.

Deci and Ryan (2008) proposed a theory of self-determination that postulated a continuum of motivations ranging from autonomous (internal) to controlled (extrinsic) motivations. According to Cho and Perry (2012), Deci and Ryan theorized that internalization of values produced a sense of identity, which, in itself, is a motivating force. This force is contingent on the satisfaction of three basic psychological needs: competence, autonomy, and relatedness. Deci and Ryan posited that to the extent the environment supports these basic needs, “the degree of internalization of identities will be higher” (as cited in Cho & Perry, 2012, p. 384). Because of the strong alignment and identification with the organization, internally motivated employees work harder in a desire to help the organization achieve its goals as if those

goals were their own. Nevertheless, Bright (2013) cautioned that most human beings would never find complete fulfillment of their intrinsic and extrinsic needs in any one job, as it is not possible for one employer to satisfy these needs adequately. Table 2 represents a summation of the extrinsic (hygiene) and internal (intrinsic) factors measured by Spector (1985) on his Job Satisfaction Survey.

Table 2. *Summary of Theoretical Two Factors of Job Satisfaction*

Extrinsic Factors of Job Satisfaction	Intrinsic Factors of Job Satisfaction
Pay/Compensation	Promotion
Fringe Benefits	Nature of Work
Supervision	Contingent rewards
Operating conditions	
Co-workers	
Communication	

Note. Variables from the Job Satisfaction Survey (Spector, 1985)

Herzberg et al. (1959) postulated that extrinsic and intrinsic factors are not necessarily opposites of a spectrum; in other words, the absence of job satisfaction is not precisely dissatisfaction, but no satisfaction. Likewise, the absence of dissatisfaction is not satisfaction but, rather, no dissatisfaction. According to Herzberg et al. (1959), if hygiene factors are absent in the workplace, employees could become dissatisfied. For example, if no incentive programs (hygiene factors) available for employees who worked extra hard for the organization, this would not necessarily result in job dissatisfaction if the employee were to be internally motivated; nonetheless, likely, the employee might not be satisfied either (Tuch & Hornbæk, 2015).

The existence of these extrinsic factors does not lead to positive long-term satisfaction; however, their presence is necessary to avoid dissatisfaction. In other words, when hygiene factors are adequate or reasonable in a job, they can calm the employees and do not contribute to dissatisfaction. Conversely, the lack of motivators (e.g., internal drive and inspiration) in a job does not necessarily contribute to dissatisfaction; however, their existence generates satisfaction (Tuch & Hornbæk, 2015). Thus, motivators lead to positive attitudes and contribute to employees' desire for self-actualization and attainment of goals and aspirations (Tuch & Hornbæk, 2015). When hygiene and motivator factors are present, the employee experiences overall satisfaction.

Recent Applications of the Two-Factor Theory

The literature on the two-factor theory suggests that extrinsic and intrinsic factors, when aligned with the employee's interests, contribute to JS, and the combined satisfaction of these two dimensions of employee motivation produces general or overall satisfaction (Allen & Meyer, 1996; Mosadeghrad, & Ferdosi, 2013). A search of the SAGE Journals database shows that, since 2012, the two-factor theory was the theoretical basis of over 125,875 satisfaction-based studies examining the effect of extrinsic and intrinsic satisfiers in a variety of industry fields and organizational contexts; following are examples of some of these studies.

Mahanta (2012)

Based on a sample of 120 employees from the telecom service industry ($n = 60$) and oil (manufacturing) sectors ($n = 60$) in the Assam region of India, Mahanta (2012) applied standard multiple regressions procedures to evaluate the influence of personal and job satisfaction (the IVs) on commitment (DV). The IVs measuring employees' characteristics were age, gender, marital status, and job tenure. Two items (i.e., meeting expectations and opportunity for

advancement) measured extrinsic satisfaction. Three intrinsic measures of satisfaction were: recognition, satisfaction with the job, and responsibilities given. The computed average of the scores for extrinsic and intrinsic motivation provided an index of overall job satisfaction.

Mahanta (2012) hypothesized statistically significant relationships among all of the IVs and the DV.

Mahanta (2012) measured the OC construct with a modified version of the J.P. Meyer, Allen, and Smith's (1993) instrument, which collected data on the three types of commitment theorized by J.P. Myer et al.; these are (a) affective commitment, (b) normative commitment, and (c) continuance commitment. The collection of the primary data on JS and OC was on five-point Likert scales with responses ranging from 1 – *very strongly agree* to 5 = *very strongly disagree*. The collection of demographic data on employee characteristics was on single-item dichotomous questionnaires, with some used in the regression analysis.

Results showed support for all but two of the hypotheses. There was a moderate degree of OC across both industry sectors, although it was stronger in the service sector. Intrinsic, extrinsic, and total job satisfaction correlated strongly with affective commitment. In the service sector, intrinsic motivation was higher than in the manufacturing sector, which inferred stronger OC among service employees. According to Mahanta (2012), this finding supported Allen and Meyer's (1996) postulation that intrinsic, extrinsic, and total job satisfaction explains the strongest type of OC, which is affective commitment. Furthermore, both sectors combined, the extrinsic dimension of the two-factor theory, was the stronger predictor of organizational commitment.

The Mahanta (2012) results showed no statistically significant relationship between gender ($p > .05$) and OC, or between marital status and OC ($p > .05$); therefore, there was no

support for the two hypotheses related to these variables. In fact, among males in the manufacturing sector, OC was lower than that of their counterparts in the service sector. Age—though statistically significant ($p < .05$)—was the weakest predictor of OC. The result supported Allen and Meyer's (1993) report of a positive relationship between age and OC. There was a statistically significant relationship between tenure and OC ($p < .05$).

Overall, results from the Mahanta (2012) study indicated a strong correlation between overall JS and OC ($r = 0.745$). At the granular level, there was not a statistically significant relationship between continuance commitment (CC) and intrinsic job satisfaction, as well as a weak correlation between CC and overall job satisfaction (OJS). However, at the global level, there was a strong correlation between overall JS and total OC ($r = 0.74$; $p = < .05$). Total OC was the cumulative average of affective commitment+continuance commitment+normative commitment. Altogether, age, tenure, and the JS IVs (i.e., the extrinsic and intrinsic JS variables) accounted for 56.3% of the variance in OC. However, although age and tenure correlated significantly with OC, the extrinsic and intrinsic JS variables were stronger predictors of OC. The two-factor theory was efficacious in explaining OC in the service and manufacturing sectors of the Assam region of India, based on personal characteristics and job satisfaction.

Bright (2013)

Based on a sample of a diverse mix of public sector employees from U.S. government agencies in Oregon, Indiana, and Kentucky ($N = 600$). Bright (2013) investigated intrinsic and extrinsic job factors relative to the relationship that public service motivation (PSM) has to person-organization fit (PO Fit) and person-job fit (PJ Fit), stating “the study collected the respondents' level of PSM, PO fit, job satisfaction, and turnover intentions” (p. 16). The PSM

variable, as well as the PJ Fit and the PO Fit variables, measured intrinsic and extrinsic dimensions of the theory.

Bright (2013) used the only known scale that measures PSM, developed by Perry (1996). The scale consisted of 24 questions that assessed respondents' intrinsic and extrinsic feelings about indicators of PSM. Three intrinsic indicators were (a) self-sacrifice, (b) public interest, (c) compassion, and one extrinsic dimension was policy; self-reported ratings ranged from 1 = *highly disagree* to 7 = *highly agree*). The summation of responses from each category provided a single score for analysis. Bright did not report reliability statistics for the original scale, nor the one used in his study. Three questions gathered intrinsic information on PO Fit and two extrinsically focused items measured PJ Fit; responses ranged from 1 = *strongly disagree* to 7 = *strongly agree*. According to Bright, "This study used several control variables for job satisfaction and turnover intentions; these were: minority status, age, gender, education level, and years of public sector experience" (p. 14); years of public experience equated to tenure.

Bright (2013) applied a structural equation modeling (SEM) with maximum likelihood estimation procedure, which is a combination of factor analysis and regression analysis, to analyze the relationships between and among the variables, controlling for the effect of age, race, gender, education, experience (tenure) on PO Fit and PJ Fit. Bright hypothesized positive relationships between PSM, PO Fit, and PJ Fit, and that PSM would be a stronger predictor of PO Fit (the intrinsic dimension of the two-factor theory) than PJ Fit (The extrinsic dimension). Results showed that, overall, PSM was a significantly better predictor of PO FIT than PJ Fit.

Contrary to the Mahanta (2012) results, which showed overall greater extrinsic correlation with OC in the combined service and manufacturing industry sectors, 60% of the sampled employees in the Bright study were intrinsically motivated to public service.

Interestingly, in the Mahanta (2012) study, at a granular level, results from the private service sector employees were similar to the Bright results in that there was a higher incidence of intrinsic satisfaction in the service industry vs. the manufacturing industry. One inference seems to be that, mostly, service industry jobs correlate more with OC than do some other industries. The types of industries sampled could account for differing results. For example, the Mahanta (2012) sample was from the service and manufacturing industry in the private sector, while the Bright sample was from the public service sector. In public service, persons tend to be inspired by altruistic reasons rather than pay. Self-sacrifice, public interest, and compassion define these motivators (Bright, 2013).

The Bright (2013) sample showed less interest in public policymaking (i.e., less extrinsic motivation). In other words, the study results showed that employees with higher levels of intrinsic motivations experienced higher identification with the organization (PO Fit) and increased JS. As intrinsic PSM increased, job satisfaction and organizational commitment increased, as evidenced by employees' perceptions of being more aligned with the organization. There was support for all three hypotheses and validation of the two-factor theory. Education, tenure, and gender had no significant relationship with the variables; however, race was a significant predictor of PO FIT.

Bhatia and Purohit (2014)

Bhatia and Purohit (2014) applied The Herzberg Two Factor Theory to underpin their study on what it took to motivate a small sample of 56 medical officers (government doctors) from one district in Gujarat in India. Bhatia and Purohit used a modified version of a reliable and valid job satisfaction scale developed by Pareek (2006), which measured extrinsic and intrinsic job factors, as theorized by Herzberg et al. (1959) In the original version, seven extrinsic facets were

addressed: “adequate salary, basic and comfortable working conditions, job security, considerate and sympathetic seniors, helping and encouraging colleagues, periodic training for individual growth and knowledge, and restricted working hours” (p. 151). The seven intrinsic job facets addressed were: challenging targets, opportunities for promotion, pay according to competence and ability, technically competent team members, independence to make decisions related to work, interesting work, and pay according to competence and ability. Modification of the Pareek (2006) scale involved the addition of three new intrinsic motivators: (a) doing something worthwhile for society, (b) encouraging feedbacks, and (c) recognition of the work you do. These new extrinsic factors were (a) good residence facility at the workplace, (b) less local political interference, and (c) less distance between headquarter and residence. Factor analysis partially validated the two-factor classification of the instrument. Results suggested that, for the Bhatia and Purohit (2014) study, overall, extrinsic factors were greater predictors of job satisfaction than intrinsic factors.

Weisberg and Dent (2016)

Applying an evidence-based research (EBR) methodology, Weisberg and Dent (2016) used the Two-factor theory in a systematic review of the literature “to examine the potential of applying non-monetary satisfiers to invigorate the human services workforce” (p. 1). According to Weisberg and Dent (2016), through the systematic review process, researchers can compile and analyze results from multiple studies. The study included peer-reviewed articles focusing on job satisfaction in the non-profit human services workforce; the final sample size was 125 relevant articles. To synthesize and critically analyze findings, the researchers first ranked the articles and then summarized them by themes.

To determine the importance of intrinsic rewards to employees, Weisberg and Dent (2016) examined employees who expressed intrinsic needs based on the literature. Among the areas of interest was the work itself, ethical policies, involvement in decision making, and a flexible workplace. Also, assessed were human resource management (HRM) strategies that might enhance these factors, which could lead to satisfaction and motivation. Results showed support for intrinsic motivation such as creativity, variety, meaningful work, achievement opportunities as essential contributors to job satisfaction. Results also showed extrinsic satisfiers such as “fair and ethical policies, commitment to the mission, effective supervision and workplace flexibility” (p. 14) contributed to motivation and were job satisfiers. Weisberg and Dent treated and justified the workplace flexibility condition as an intrinsic factor, rather than extrinsic as in most studies. As an aside, other researchers such as Evans and Olumide-Aluko (2010) also repositioned factors such as pay from extrinsic to intrinsic, deviating from Herzberg et al. (1959) original postulations. The authors postulated that the two-factor theory “is a good fit for addressing both the external and internal elements of job satisfiers needed by non-profit human services employees” (p. 3). While there has been strong support for the propositions of the two-factor theory, other satisfaction theories emerged after Maslow and Herzberg's theory, two of which are Vroom's Expectancy Theory of Motivation (1964), and the Active Events theory (Weiss & Cropanzano, 1996). Discussed in the following sections are the theories that emerged after Maslow and Herzberg's theories.

Vroom's Expectancy Theory of Motivation (1964)

An alternate name for this process theory is the Valance-Instrumentality-Expectancy (VIE) theory (Van-Eerde & Thierry, 1996), Vroom's theory addresses and attempts to explain the job satisfaction process (Saif et al., 2012). In an organizational context, the theory assumes

that the employees' motivation stem from an assessment of the rewards, which will result from their action. A tenet of the theory is that an inner force drives individuals to accomplish goals they consider worthy and achievable; the expected outcome influences individuals' behaviors, which create job satisfaction. According to Vroom (1964), persons selectively engage in behaviors they believe will benefit them or minimize the probability of pain. Vroom posited individuals become motivated when:

1. Their increased effort will lead to increased performance.
2. Their good performance will result in a reward they desire.
3. The reward will satisfy an important need.
4. The desire to satisfy the need is compelling enough to make an effort worthwhile.
5. They believe they can achieve a high level of performance.
6. They believe the rewards other co-workers are receiving for an effort are in line with what they are receiving for the same effort.

There are three interactive dimensions to the theory: valence, expectancy, and instrumentality.

Valence, Expectancy, and Instrumentality

In an organizational context, valence relates to how much the employee desires a reward to perform the work and the value and significance a person places on the merit of an outcome (Vroom, 1964). In other words, it is the strength of the expected utility, which the employee expects for the output of effort expended to achieve the goal (Saif et al., 2012). Expectancy has

to do with the employee's expectation that a particular effort will result in a highly desired or first-level outcome (the desired reward). Expectancy takes into consideration the employee's rationality in making choices and predictions that will deliver the desired results in the future (Vroom, 1964). It takes into account whether the performance will result in the desired reward (Sahito & Vaisanen, 2017). Instrumentality relates to the degree that a first-level outcome will lead to a second level (intermediate) outcome later. For example, if an employee believes the efforts they put will not garner a promotion, the employee will not be motivated to do the job. According to Vroom, independently, valence, expectancy, and instrumentality can affect an individual's motivation; however, when present collectively, the influence is much more profound. A formulaic representation of the Vroom is $\text{Valence} * \text{Expectancy} * \text{Instrumentality} = \text{Motivation}$ (Figure 3).

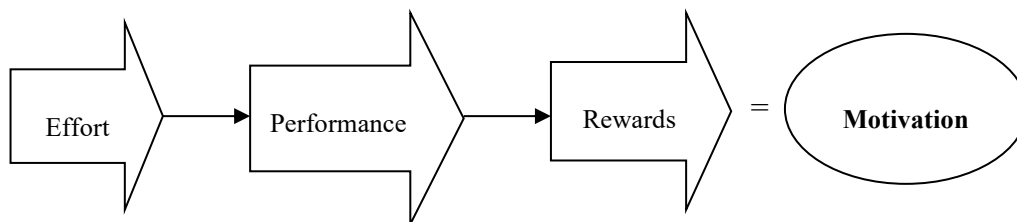


Figure 3. A Conceptualization of Vroom's Expectancy Model

A strength of Vroom's (1964) theory is a recognition of the cognitive processes the individual undergoes to enhance motivations and satisfy needs (Lloyd & Mertens, 2018). Furthermore, the theory allows for the assessment of how attitudes, behaviors, and job satisfaction might relate to each other. In a critique of the theory, is that because it involves many variables, a weakness of the theory is in its complexity to test and carry out, despite its simplicity in expression (Lloyd & Mertens, 2018). Although the theory addresses motivation, the Vroom

theory differs from Maslow's and Herzberg's theories in that its focus is on outcomes and not on needs. It addresses effort, performance, and rewards (i.e., outcomes). The Vroom theory is not appropriate for supporting this study because it considers outcome variables (e.g. job motivation and job satisfaction), rather than employee organizational commitment, and this does not suit the purpose of this study. For this study, the outcome or dependent variable of interest is employee organizational commitment, and not employee motivation, or employee job satisfaction.

Affective Events Theory (AET)

The postulations of the AET relate to employees' emotions and moods in the workplace, such as how events shape and influence employees' work behaviors over time. Howard M. Weiss and Russell Cropanzano (1996) introduced the affective events theory (AET) to clarify how feelings and emotions affect job satisfaction and job performance (as cited in Thompson & Phua, 2012). Employees' emotions and feelings can influence work attitudes, performances, and behaviors (Ashkanasy & Humphrey, 2011; Tenhiälä & Lount, 2013). The AET proposes that, in organizational settings, extrinsic needs create affective events that induce emotional reactions in employees, which, in turn, dictate employees' behavior and attitudes. According to Weiss and Cropanzano (1996), the employee's disposition and feelings contribute to affective work behaviors, and they are the best predictors of job satisfaction. However, job satisfaction is a different form of effect.

A tenet of the AET theory is that emotions bear on employees' job satisfaction, and work events are at the nucleus of employees' affective/emotional experiences (Weiss & Cropanzano, 1996). Furthermore, Weiss and Cropanzano proposed that job attitudes are an employee's evaluative judgment of the job or job condition. This judgment involves (a) an affective or

emotional component, which stems from emotional encounters, and (b) a judgmental or cognition-based component that emerges from the employee's abstract views about the job.

Affective conditions directly influence work attitudes and, in turn, both attitudes and affective conditions determine feelings and behavioral responses (Ohly & Schmitt, 2015). For example, faced with poor environmental conditions such as noisy and cramped workspaces, the employee's emotional response might be frustration and withdrawal. Conversely, when based on more deliberative evaluative judgments, an employee's response might result from perceptions of work conditions. For example, in a noisy and crowded physical workspace, the employee's perception of fit may lead to judgment-driven actions such as lower effort, poor job performance, and a departure from the organization (Weiss & Cropanzano, 1996).

Four main concepts underlie AET: (a) the nature, source, and effects of emotion at work, (b) triggers that induce emotional response events at work, (c) emotions may change as time passes, and (d) psychological encounters are multidimensional; therefore this dimensionality is as crucial as the composition of the surroundings in which they appear (Weiss & Cropanzano, 1996). Todorova, Bear, and Weingart (2014) tested the ability of the AET to explain or predict job satisfaction. In testing hypotheses concerning the influence of assignment conflict on positive emotions and job satisfaction, Todorova et al. (2014) reported that positive active emotions excited and energized employees and increased job satisfaction. The findings supported the theory's fundamental tenets.

The AET seems to be more appropriate for testing the processes by which individuals are motivated or come to feel motivated and satisfied in their jobs. Since the focus of this study was on the effects of employee characteristics (e.g., age, gender, marital status, job tenure) on the extrinsic and intrinsic factors, which contribute to job satisfaction to predict or explain OC, the

AET theory was not appropriate to underpin this study; the relationship between affective events or emotions and job satisfaction was not the investigative purpose of this study.

Comparison of the Vroom, AET, and Two Factor Theories

Herzberg's two-factor theory of motivation (Herzberg et al., 1959), Affective Events Theory (Weiss & Cropanzano, 1996), and Vroom's Expectancy Theory (Vroom, 1964) are similar as the three theories posit that there must be a fulfillment of a certain set of needs and behaviors to influence behavior. For example, in the Two-factor theory, job satisfaction emerges from the alignment of hygiene (external/extrinsic), and motivational (intrinsic/internal) factors are desirable to the employee; thus produced, satisfaction yields desirable behaviors such as higher performance, and organizational commitment follow. In AET, the effects of cognitions, emotions, mental state at work, and events motivate employees affectively. In Vroom's expectancy theory, job satisfaction follows motivation through a pathway based on expectations; for example, when three elements (valence, expectancy, and instrumentality) interact positively, the result is employee job motivation and satisfaction.

In all of the theories, job satisfaction develops as a function of expectations, environmental demands, and ranges of internal and external variables such as pay personality traits, procedural fairness, interpersonal relationships, and events, among others. Despite the evidence supporting the theory, research suggests ample criticisms of this theory remain in the literature (Morin, Morizot, Boudrias, & Madore, 2011). Some of these criticisms are discussed in the following sections.

Criticisms of the Herzberg et al. (1959) Theory

In an early opinion, Locke (1976) criticized the two-factor motivator-hygiene theory on the basis that it did not address numerous sources of job satisfaction and dissatisfaction. Early

limitations of the theory seemed to be in its inability to show just how to measure hygiene factors and motivators, and it appeared to ignore individual differences and reactions to hygiene factors and motivators. A criticism of the theory was its inconsistency in categorizing the two sets of factors (Malik & Naeem, 2013). For example, based on this review of the literature, recent researches seem to question the positioning of certain variables into extrinsic or intrinsic domains, and classification some extrinsic variables changed from extrinsic to intrinsic and vice versa (e.g., Bright, 2013; Evans & Olumide-Aluko, 2010). Holmberg, Caro, and Sobis (2017) noted that the Herzberg et al. (1959) two-factor theory is a suitable tool in exploring and a better understanding of job satisfaction, but their findings relatively contradict the basic premises of the theory. Lacking career advancements and rewards (extrinsic motivation) were perceived to influence job satisfaction negatively. However, today, it can be argued that the theory has developed and matured over time, and ample validation exists to prove its efficacy to underpin management practices, especially as the field's understanding of variables in the extrinsic and intrinsic domain is now clearer.

Many types of research indeed support the basic tenets of the two-factor theory. Although some approaches might be different, there seems to be congruence in the literature, which shows that, indeed, extrinsic and intrinsic motivating factors underlie employee job satisfaction. However, this shifting of extrinsic and intrinsic factors from one classification to another might be confusing and suggests that the definition of the variables measuring the two constructs are not as clear as researchers might think; this might have implications for policy-makers as well as scholar-practitioners.

Nevertheless, now that a validation of the basic tenets of the theory is recognized, several recent studies applied the theory and included personal characteristics as variables beyond

extrinsic and intrinsic motivators—indicating the theory is robust to expansions of other factors that contribute to JS. This approach addresses Locke’s earlier criticism of the limitations of the theory for its exclusion of other sources of job satisfaction. Another criticism of the theory is in its ambiguity concerning the hygiene–motivator notion (Tuch & Hornbæk, 2015). For example, it is still unclear if (a) practically all motivators together lead significantly to job satisfaction as compared to job dissatisfaction, and whether all of the hygiene factors jointly lead to more dissatisfaction compared to satisfaction, or whether (b) every single motivator leads to much more to satisfaction as compared to dissatisfaction, and every single hygiene leads more to dissatisfaction as compared to satisfaction (Tuch & Hornbæk, 2015, p. 16). Despite criticisms of the theory, its versatility to explain satisfaction beyond the job satisfaction context is emerging in fields such as user experience as evidence by Tuch and Hornbæk’s (2015) study, described in the following section.

Tuch and Hornbæk (2015)

In a different context, which can apply to organization studies, Tuch and Hornbæk (2015) showed the versatility of the two-factor theory to explain user experience (UX) satisfaction by applying it to a study of UX with smartphones. Tuch and Hornbæk applied the theory to investigate the notion of hygiene factors contributing to dissatisfaction but not to satisfaction, and motivators, factors contributing to satisfaction but not to dissatisfaction, in the context of user experience (UX). Applying a critical incident approach qualitative design and matching their study closely to that of Herzberg et al. (1959), Tuch and Hornbæk collected smartphone-related events connected to the user experience through interactive technology. They based their questions on the Herzberg et al. (1959) interview guide, adapting them to a smartphone context.

The adaptation of the two-factor theory allowed Tuch and Hornbæk (2015) to examine the IV, technical quality and price (the extrinsic factors) and IV, utility, and convenience (the intrinsic factors) as contributors to emotional responses related to satisfaction with their phones. According to Tuch and Hornbæk, the study followed the Herzberg et al. (1959) reasoning that “accounts of good and bad events differ in the factors causing positive or negative attitudes” (p. 16). The final sample size was 315, collected through Amazon Turk on open-ended questionnaires. Results showed the theory was efficacious in explaining relationships between the hygiene factors (e.g., technical quality and service) and motivator factors (e.g., utility and convenience) dimensions of satisfaction with user experience. As JS theory continues to develop, more recently, Sahito and Vaisanen (2017) proposed a multi-dimensional model extracted from content and process theories: The Diagonal Model of Job Satisfaction and Motivation.

Diagonal Model of Job Satisfaction and Motivation - DMJSM (Sahito & Vaisanen, 2017)

Sahito and Vaisanen (2017) proposed to create a new multi-dimensional model of job satisfaction theory by exploring the “strongest areas of all prime theories of job satisfaction and motivation” (p. 209). Relying on content and process theories, Sahito and Vaisanen sought to develop a model encompassing the range of employees’ professional life and what organizations must do to satisfy employees’ basic needs, while providing the vehicle for them to actualize their fullest potential and achieve their personal and organizational goals. According to Sahito and Vaisanen (2017), the goal of the study was:

1. To compare and contrast all theories of job satisfaction and motivation (JSM);
2. To explore the main ideas, characteristics, and relationships between theories of JSM;
3. To extract the ideas and facts to create a new model of JSM. (p. 215)

Accordingly, Sahito and Vaisanen (2017) developed the DMJSM from a synthesis of 15 prime theories gleaned from the existing literature on the topic and applied mathematical induction to analyze the data. Sahito and Vaisanen selected factors and causal relationships to include in the model based on “physiological, economic, and social dynamics in society” (p. 221). Through this process, Sahito and Vaisanen identified the most salient contributors to job satisfaction and motivation and proposed that the model was suitable for use in developing and developed countries. A value of the model is the ability to apply the factors contributing to JS and motivation in Western and non-Western contexts. In agreement with earlier conclusions in the literature, Sahito and Vaisanen posited that a Western approach to job satisfaction would not elicit the same response in a non-Western context, because of cultural and other differences. For example, intrinsic and extrinsic motivators may differ in developed and developing nations because of strong support infrastructures in developed countries and inadequate support in those less developed. Since these conjectures are, at best, not tested theory, and at worst, a restatement of what exists in the literature, the Sahito, and Vaisanen (2017) model was not appropriate as a theoretical foundation for this study. Nevertheless, JS and OC literature suggests a consensus that motivating factors underlie job satisfaction, and job satisfaction leads to organizational commitment.

Employee Organizational Commitment (OC)

Employee job satisfaction (EJS) leads to improved productivity, employee retention, and decreased turnover. The latter is significant to organizations as projections of the replacement cost of existing employees are higher than the departing employee’s annual income (Bryant & Allen, 2013). Low organizational commitment results in high turnover rates; therefore, understanding how to increase employees’ organizational commitment through employee job

satisfaction continues to interest organizations (Arati, 2017; Sabella, El-Far, & Eid, 2016; Setyaningdyah, Nimran, & Thoyib, 2013). However, like JS, in the seminal and contemporary literature, no consensus on how to define OC is noted (Leite, Rodrigues, & Albuquerque, 2014; Srivastava, 2013); therefore, researchers offer numerous definitions to describe the construct (Mahanta, 2012).

Definition of Employee Organizational Commitment (OC)

Employee organizational commitment (OC) has been described as the degree to which an employee identifies with an organization in terms of the alignment of the organization's goals and values with the employees' goals and values, as well as the degree of the employee's desire to work hard and to continue working for the organization (Mowday et al., 2013). Employee organizational commitment has been conceptualized as a three-dimensional construct expressed as affective, normative, and continuance commitment (J.P. Meyer & Allen, 1991).

Mowday, Steers and Porter (1979) and Porter et al. (1974) identified OC as an emotional state, which inspires employees to go above and beyond their regular duties while displaying a strong desire and intent to continue to work for the organization. Allen and Meyer (1990) combined and analyzed the various definitions of JS by separating each definition by its similarities and dissimilarities; the similarities in the definitions act as the primary and essential part of OC. Organizational commitment was later defined as the single binding force to the course of action to a specific objective (J.P. Meyer & Allen, 2004; Meyer & Herscovitch, 2001). Further, Meyer and Allen's (1991) study extended the body of knowledge on OC by quantitatively testing variables using the three-component model (TCM), which defines the construct.

The TCM Model of OC

J.P. Meyer and Allen's (1991) TCM model proposed that OC is composed of three distinct components: affective commitment (e.g., emotional attachment to an organization, which is the highest form of commitment), continuance commitment (e.g., the personal cost of the employee to leave an organization; costs associated with continued employment), and normative commitment (e.g., feeling of obligation to stay with an organization). These OC components deal with the underlying reasons why personnel remain working with a firm (Allen & Meyer, 1990; J.P. Meyer & Allen, 1987; Veronica & Indradevi, 2014). J.P. Meyer and Allen (1991) proposed that the three dimensions of OC are best understood as three "components, rather than types, of attitudinal commitment" (p. 4), and employees can "experience each of these psychological states in varying degrees" (para. 1). J.P. Meyer and Allen believed that an employee in the organization might sense all three TCM elements to some degree. For example, an employee might feel attached and obligated to stay with the organization (affective and normative commitment). Another employee might stay for economic reasons (continuance commitment). The third employee may feel a desire, need, and obligation to remain with the organization (affective, continuance, and normative commitment). Likewise, the elements above of organizational commitment must be set up as the elements of a single commitment construct to understand better the various relationships between linked variables (Srivastava, 2013).

Affective Commitment. In the literature, affective commitment has been variously called affective attachment and cohesion commitment (J.P. Meyer & Allen, 1991). According to J.P. Meyer and Allen, Kanter (1968) described cohesion commitment as "the attachment of an individual's fund of affectivity and emotion toward the group" (p.507). Buchanan (1974) described affective attachment in terms of a "partisan, affective attachment to the goals and

values, and to the organization for its own sake, apart from its purely instrumental worth” (p. 533). Porter et al. (1974) described the construct as “the relative strength of an individual’s identification with and involvement in a particular organization” (p. 226). Vandenberghe, Bentein, and Panaccio (2017) referred to evidence in the literature, which identified some positive correlates of AC, such as lower turnover, higher job performance, and better citizenship behaviors. Affective commitment is the highest form of commitment that an employee can hold for an organization; therefore, it is desired most by employers. Perhaps because of the positive outcomes associated with Affective commitment (AC), this component of OC has been researched more often than either NC or CC.

As it relates to the three-component model of commitment postulated by J.P. Meyer and Allen (1991), the authors described affective commitment as “the employee’s emotional identification with, and involvement in, the organization” (p. 67). When employees are emotionally or affectively committed to the organization, they choose to remain with the company because they want to, and not out of necessity (J.P. Meyer & Allen, 1991). When employees believe the values of the organization align with theirs, it creates an emotional bond with the organization, which drives the employee to strive to support the goals of the company. Mowday et al. (1982) suggested personal characteristics, job characteristics, work experiences, and structural characteristics are antecedents of affective commitment.

Continuance commitment. Allen and Meyer proposed that the two antecedents of continuance commitment (CC) were “side bets” (i.e., the number or magnitude of investments the employee made in working for the organization), and “perceived lack of alternatives” (p. 4, para. 2). Earlier, Becker (1960) proposed a Side Bet theory as an explanation of an employee’s desire and decision to continue working with her organization. According to Powell and Meyer

(2004), this continuance commitment increases “with the accumulation of side bets or investments” (p. 372). For example, an employee with highly specialized skills not transferable to other organizations is likely to stay with the organization even if she is not happy with the choice. In this case, the side bet was that the specialized skill or investment would not pay off.

WeiBo, Kaur, and Jun (2010) postulated that the side bet approach proposed by Becker (1960) was one of the earliest attempts at providing a conceptual framework about OC from the perspectives of the employee’s relationship with the organization. A main precept of the theory is that the basis of the relationship between the employee and the organization is on “a contract of economic exchange behavior” (p. 13). When an employee decides to stay with the organization after weighing the costs and benefits, it is because she has decided she needs to, and not because she wants to (Allen & Meyer, 1990); in other words, the costs associated with leaving might be too high a price to pay. Continuance commitment is the least desired form of commitment by organizations (Üngüren & Ehtiyar, 2016).

Normative Commitment. Similar to affective commitment (AC), normative commitment (NC) is valued by employers and relates to the employee’s feeling of gratitude or obligation to the organization, based on some act of kindness, consideration, or accommodation meted out to the employee by the employer (J.P. Meyer & Allen, 1991; Syed & Tappin, 2019). Allen and Meyer (1990) proposed that two antecedents influenced normative commitment: (a) familial/cultural socialization, and (b) organizational socialization. Strong familial or cultural socialization develops when deep familial or cultural connections to the organization occur. Examples of familial/cultural socialization might be in the case of the generational and cultural bonds that develop between coal mining companies and the communities in which they exist, or manufacturing organizations with deep roots and history in a community (such as with the

automobile industry). Organizational socialization has to do with the organization's expectations of loyalty based on the organization's practices, which led the employee to believe deserved their loyalty in return (Allen & Meyer, 1990). Based on these sentiments, the employee feels she ought to keep working in the organization, regardless of other considerations.

According to J.P. Meyer and Parfyonova (2010), the idea of obligation-based commitment extends beyond the theoretical three-component conceptualization of commitment. J.P. Meyer and Parfyonova (2010) postulated that of the three types of commitment, little attention had been paid to NC in the literature. J.P. Meyer and Parfyonova posited that criticisms of the NC construct had been anchored around the belief that it is redundant and reflects attributes similar to AC. This perceived similarity with AC might account for the value organizational leaders place on NC.

J.P. Meyer and Allen's (1991) seminal work has provided useful information and a great contribution to the corpus of knowledge on employee organizational commitment (OC). Within the organization and business management literature, OC is considered a multidimensional construct (Meyer & Allen, 1984). Allen and Meyer's (1990) three-component model (TCM) has received much attention in the organization and business management literature (Lambert, Griffin, Hogan, & Kelley, 2015; Mahanta, 2012; J.P. Meyer et al., 2002; Miarkolaei, 2014; Srivastava, 2013); it continues to be heavily used for research and is referred to as a basis for understanding OC (Veronica & Indradevi, 2014).

Seminal and contemporary literature has long shown a positive correlation between high levels of OC, increased productivity, higher retention rates, and lower absenteeism (e.g., Kashefi et al., 2013; Nguyen, Mai, & Nguyen, 2014; Srivastava, 2013), which organizations desire. OC is an important construct to examine further in organizational and management literature. However,

there have been criticisms against the categorization aspects of these dimensions of OC as being attitudinal, instead of motivational (Miarkolaei, 2014). Even though OC is considered a multidimensional construct, traditionally, only the main effects, also known as the independent effects, of the three OC forms, have been taken into consideration when evaluating the results of OC (Miarkolaei, 2014).

Main Effects of OC

The main effects of the OC construct consist of the non-interacting additive effects realized from the three dimensions of OC, and often the different OC forms were studied in isolation (Herscovitch & Meyer, 2002). However, Herscovitch and Meyer's seminal research showed that interacting effects were occurring between affective commitment and continuance commitment when predicting support for change. Herscovitch and Meyer recommended more research should be conducted, which would look beyond the main or independent effects when evaluating the results of OC and would consider how the three OC dimensions might interact (Miarkolaei, 2014). Employees' personal characteristics have been investigated for their contributions to employee job satisfaction and employee organizational commitment. What is also known is that employees' personal characteristics (PC) have been investigated for their influence on employee job satisfaction, as well as on employee organizational commitment. The results of the research conducted by Üngüren and Ehtiyar (2016) found a strong positive relationship between organizational commitment and employee job satisfaction (JS). In this study, the moderating effects of some of these characteristics on JS were investigated for how the moderated variable predicted or explained employee OC. What is known about similar studies is reported in the following section.

The question of whether job satisfaction is the predictor of organizational commitment or vice versa is a controversial issue. The relationship between the two constructs is so established that researchers continue to debate what comes first: JC or OC, a situation that Mahanta (2012) described as a “chicken-and-egg debate” (p. 47). For instance, Porter et al. (1974) posited that JS is a predictor of OC, and Leite et al. (2014) reported OC predicted JS. Nevertheless, in the seminal and contemporary literature, long-established links between dissatisfied employees and lack of organizational commitment have been reported (Ngirande & Terera, 2014; Myer & Porter, Porter et al., 1974; Tomažević, N., Seljak, J., & Aristovnik, 2014; Zahoor et al., 2014). In distinguishing the two constructs, Mahanta (2012) posited that commitment is a “more global response to an organization and job satisfaction is more of a response to facets of one’s job” (Mahanta, 2012, p. 47).

Nevertheless, ample evidence in the business and organization literature suggests that job satisfaction (JS) is crucial to optimum organizational functioning and contributes positively to an employee’s commitment to the organization (Locke, 1970, 1976; J.P. Meyer & Allen, 1991; Osemeke, 2016; Saif et al., 2012; Tosun & Ulusoy, 2017; Valaei & Rezaei, 2016; Yang & Wang, 2013). However, although a mature body of literature on JS and organizational commitment (OC) prevail in the field of business management and organization, unknown is whether, or to what extent, variables such as employees’ personal characteristics (e.g., age, gender, marital status, tenure) moderate the relationship between JS and OC.

Employees’ Personal Characteristics (PC)

Many characteristics directly impact an employee’s commitment to his/her organization (J.P. Meyer et al., 2002; J.P. Meyer, Stanley, & Parfyonova, 2012). According to Walsh and Bartikowski (2013), employee characteristics affect employee turnover intentions, which relates

to organizational commitment. Characteristics such as age, gender, race, marital status have been important variables in social sciences research (Adams, Quagraine, & Klobodu, 2014; Hollister & Smith, 2014) and have also been studied as antecedents of OC (Echchakoui, & Naji, 2013; Mensah & Adjei, 2015). As early as 2000, findings from a meta-analysis by J.P. Meyer et al. (2002) confirmed that low organizational commitment predicted turnover intentions. Based on the results of OC, the premise of this study is that employers would benefit by understanding how PC variables relate to organizational commitment.

Definitions of Personal Characteristics (PC)

Although no standard definition for personal characteristics PC in the seminal and contemporary literature exists, researchers conceptualize the construct as attributes uniquely associated with an individual. The online Merriam-Webster dictionary (2018) defines the construct as a unique quality or trait that makes a person, thing, or group different from others. Age, gender, marital status, tenure, socio-economic status, ethnicity, educational levels as well as personality characteristics and dispositions are some of the important PC variables in organizational research (Adams et al., 2014; Echchakoui & Naji, 2013; Hollister & Smith, 2014; Mahanta, 2012; Mowday et al., 1982). For this study, four types of PCs were under investigation for job satisfaction and organizational commitment; the operational definition of these variables are age (18 – 65 years), gender (male/female), marital status (married/unmarried), and tenure or length of employment in years (Çoğaltay, 2015; Hollister & Smith, 2014; Joo & Park, 2010; Mahanta, 2012; Mensah & Adjei, 2015).

Growing (International) Interest in PC, JS and OC Relationships

Saif et al. (2012) postulated that most job satisfaction theories originated in the United States (U.S.), and their applicability to other national and cultural contexts is questionable.

Despite decades-long studies on antecedents to OC, rapid globalization, workplace diversity, and changing social trends fuel business leaders' and academia's' continued interests in how to promote commitment among employees (Dugguh & Dennis, 2014; Echchakoui & Naji, 2013; Kipkebut, 2013; Mahanta, 2012; Miarkolaei, 2014). Therefore, researchers globally continue to investigate antecedents of OC in various organizational contexts across industries (Albdour & Altarawneh, 2014; Garland et al., 2014; Klein, Molloy, & Brinsfield, 2012; Mercurio, 2015). For example, many recent international studies revealed a growing interest in the effect personal characteristics exert on JS and OC (Çoğaltay, 2015; Joo & Park, 2010; Mahanta, 2012; Mensah & Adjei, 2015).

Personal Characteristics (PC) Studies

While some studies revealed statistically significant relationships between PCs such as age, marital status, gender, job tenure, educational level, JS, and OC, other studies show contradictory or mixed findings (Echchakoui & Naji, 2013). It is possible, as Saif et al. (2012) noted, the national and cultural difference effect on employees' characteristics may underlie the mixed results across the different international studies. Leite et al. (2014) opined that there had not been a robust investigation of personal characteristics in the JS and OC literature. For this study, the PCs of interest were age, job tenure gender, and marital status.

Age and gender. According to Litchfield et al. (2016), the nature of work, as well as how the field conceptualizes work, is a continually evolving process. For example, 50 years ago, the work environment was stable, employees felt more secure in their jobs, and women were beginning to enter the workplace in greater numbers (Litchfield et al., 2016). Mowday et al.'s (1979) seminal study revealed women were more committed to their jobs than were men. Allen and J.P. Meyer's (1993) original study found a positive relationship between age, gender, and

employee organizational commitment (OC). Mahanta (2012) reported a statistically significant relationship between age, tenure, employee job commitment, and OC. Dinah (2013) found that age was a positive predictor of JS and OC. Adams et al. (2014) found a statistically significant relationship between age, gender, and OC. Contrary to findings, Naqvi and Bashir (2015), and Echchakoui and Naji (2013) reported a weak relationship between age and OC. Srivastava (2013) could not find a significant relationship between PC, JS, and OC. Also, Echchakoui and Naji (2013) reported job satisfaction did not vary by age; however, gender and educational level influenced JS.

Üngüren and Ehtiyar (2016) presided over research with 821 employees working in five-star accommodation businesses in Alanya, Turkey, to assess the effect of demographic variables on the relationship between JS and OC. The findings suggested a strong positive relationship between organizational commitment and job satisfaction. Üngüren and Ehtiyar further noted age was the dominant demographic variable significant on job satisfaction and organizational commitment attitudes; also, job satisfaction and organizational commitment ratings of the employees varied significantly about the department, marital status, education, status, and gender.

Tenure and educational level. Length of tenure correlates with increased firm-specific skills and satisfaction (Hofstetter & Cohen, 2014; Michel, Kavanagh, & Tracey, 2013). For example, in the seminal literature, Mowday et al. (1979) reported tenured employees were more committed than non-tenured employees, while less educated employees were more committed than highly educated employees. Mahanta (2012) concluded there was a significant relationship between tenure and employee organizational commitment (OC). Echchakoui and Naji (2013) found a significant relationship between educational level and employee job satisfaction (EJS).

Conversely, earlier, Locke's (1996) study reported a significant negative correlation between job tenure and OC, while J.P. Meyer et al.'s (2002) seminal meta-analysis results showed a weak relationship between tenure and OC. However, in a more recent study, Bellou, Rigopoulou, and Kehagias (2015) revealed a statistically significant relationship between tenure and OC.

Age, tenure, marital status, and educational level. Saiti and Papadopoulos (2015) reported that five employee personal characteristics (PC) variables (e.g., age, marital status, tenure, educational level, and skills level) had no statistically significant relationship between PC, employee job satisfaction (EJS), and employee organizational commitment (OC). However, recent studies in India (Mahanta, 2012), China (Joo & Park, 2010), Africa (Mensah & Adjei, 2015; Riza, Ganzach, & Liu, 2016), and Turkey (Çoğaltay, 2015) produced conflicting and contradicting results on the relationships between the variables PC, JS, and OC. Azim, Haque, and Chowdhury (2013) pointed out the differences in characteristics among employees in developed and undeveloped countries; therefore, the conflicting results may have been because of cultural differences. Organizational theorists have noted that JS and JC theories originated in America, by Americans, for Americans, where there is an emphasis on individualism. These types of theories may not have been appropriate in collectivist societies, according to Robbins (2005). As early as 2000, Chen and Francesco (2000) reported that employee behavior under Chinese culture differed from employees in Western cultures.

In summary, what is known is that although employees' characteristics are essential contributors to employee job satisfaction and employee organizational commitment, there are still inconsistencies in the contemporary literature concerning the relationship between personal characteristics, employee job satisfaction, and employee organizational commitment.

Understanding whether employees' characteristics affect JS to explain OC can, potentially, contribute to the existing body of literature and also extend job satisfaction theory beyond the intrinsic and extrinsic dimensions theorized by Herzberg et al. (1959).

Findings

Findings from the analysis of the organizational and management literature revealed several already known facts about the relationships among personal characteristics (PC), job satisfaction (JS), and organizational commitment (OC). From the literature review, it is evident that there is no consensus on how to define JS or OC; therefore, many definitions of the constructs exist, which gave rise to many different measurement instruments and conflicting and contradicting results from a significant number of research globally (e.g., J.P. Meyer et al., 2002; Miarkolaei, 2014; Porter et al., 1974). Observations have been made in the literature that JS is an antecedent of OC (Porter et al. (1974); however, questions have arisen about whether JS is truly an antecedent of OC, or vice versa—since the two constructs are so intricately related. For example, Leite et al. (2014) reported OC predicted JS. Mahanta (2012) opined that since commitment is a “more global response to an organization and job satisfaction is more of a response to facets of one’s job” (p. 47), any attempt to unravel the relationship between JS and OC was like trying to solve the riddle of which came first—the chicken or the egg?

Nevertheless, two patterns seemed to emerge from the review of the literature: (a) a preponderance of evidence showed that there is a positive relationship between JS and OC across nationalities and cultures, but (b) there is no consensus concerning the relationship between PC, JS, and OC—although the review established that personal characteristics such as age, gender, race, marital status have been important variables in social sciences research (Adams et al., 2014; Hollister & Smith, 2014) and have also been studied as antecedents of OC (Echchakoui, & Naji,

2013; Mensah & Adjei, 2015). The literature clearly revealed inconsistencies in the relationships among PC, JS, and OC, specifically in international research (e.g., Çoğaltay, 2015; Joo & Park, 2010; Mahanta, 2012; Mensah & Adjei, 2015; Miarkolaei, 2014; Srivastava, 2013).

Despite the dissonance in the literature concerning relationships among PC, JS, and OC in international research, the review of the literature revealed that researchers have long understood that personal characteristics affect employee's level of satisfaction and commitment to the organization in some way or the other (Mahanta, 2012; J.P. Meyer et al., 2002; J.P. Meyer et al., 2012). Mowday et al. (1982) reported a stronger commitment among females than among men. Approximately a decade later, Mowday et al. (1982) postulated a positive relationship between PC and affective commitment, such that PC was an antecedent of commitment. For example, evidence in the literature indicated a positive, statistically significant linear relationship between age and OC (Allen & Meyer, 1993), but when age was applied as a moderator variable, the results showed no statistically significant relationship among the variables. Mahanta (2012) confirmed the positive relationship between age and OC but results from a study by Echchakoui and Naji's (2013) disputed Mahanta's (2012) findings. Nevertheless, Dinah (2013) and Adams et al. (2014) also reported a positive linear relationship between age and PC.

Although results have been contradictory, ultimately, what is known is that researchers recognize the value of investigating relationships among PC, JS, and OC. However, since the contradicting results seem to stem mostly from African, Eastern, and Middle Eastern countries, what is unknown is whether cultural differences contribute to the dissonance in the recent PC, JS, and OC literature. In his seminal work, Robbins (2005) observed that since most organizational theories related to JS and OC originated in America by Americans, for Americans, they might not be appropriate for different cultures—an opinion with which Saif et

al. (2012) concurred. It seems more studies are needed in this area as Sahoo, Mitra, and Mahanti (2014), as well as Sahito and Vaisanen (2017) voiced the same concern.

However, despite the criticisms and inconsistencies (e.g., definitions, antecedents, and results) and the gaps in the literature relating to the relationships among or between employees' characteristics (PC), employee job satisfaction (JS), and employee organizational commitment (OC), business managers, scholar-practitioners, and contemporary researchers continue to be interested in the investigation of the relationships between and among the variables in various organizational contexts (Albdour & Altarawneh, 2014; Garland et al., 2014; Klein et al., 2012; Mercurio, 2015). The persistent interest in understanding and clarifying relationships among PC, JS, and OC have been attributed to the turbulence that characterizes the 21st-century business, economic, and workplace environments. Lowe (2018) and Reinardy (2012) attribute this turbulence to the acceleration of globalization, outsourcing, demographic shifts, and increased diversity in the workplace as well as political, social, and cultural changes that emerged around the middle of the 20th Century.

The review of the literature revealed that organizations value employees' affective and normative commitment (Mercurio, 2015), but business leaders face an ongoing challenge to identify the determinants of OC to the organization (Morrow, 2011). Nevertheless, OC is still considered a key determinant of organizational effectiveness (Mercurio, 2015) and employee job satisfaction (JS) and employee engagement remain the primary interest of organizations, as there is acknowledgment in the seminal and contemporary literature that JC is a leading factor in OC (Hollister & Smith, 2014; Kang et al., 2015; Lu & Gursoy, 2016; Masood et al., 2014; Pinho et al., 2014; Saif et al., 2012; Srivastava, 2013; Zahoor et al., 2014).

Seminal and contemporary research has shown that satisfied employees commit to their organizations; these employees exhibit low turnover rates, are more productive, help organizations to achieve competitive gains, and attain their goals (Joo & Park, 2010; Mahanta, 2012; J.P. Meyer & Allen, 1991, 2004; Valaei & Rezaei, 2016). The current literature on PC, JS, and OC contain meaningful theories and empirical evidence that will help decision-makers in creating policies to encourage and enhance employee satisfaction and commitment. However, it still does not provide a clear understanding of the antecedents of JS and OC.

Critique of the Previous Research Methods

Most of the studies on PC, JS, and OC have been emerging from non-Western countries in recent years, which signify an interest in these correlates. One motivation behind this interest might be the same dynamic forces that keep organizational theorists, decision-makers, and scholar-practitioners in America and Western countries interested in JS and OC—that is, globalization and the effects of continuous change on the workforce. Critiques of the earlier research methods relate mainly to the methodologies employed in recent studies. For example, the sites for the research efforts, such as Mahanta (2012), were in localized regions or communities, with small-sized samples drawn from very narrow industries. Because of these methodological shortcomings, it was not possible to generalize the results to the population of employees in these countries, far less to other national contexts. For example, the findings of the study were not generalizable to different national settings because it was conducted in the Assam region of India, a developing country, and the sample used in the study was limited to two industry sectors (telecom and oil); therefore, results were generalizable only to the sample.

A positive finding was that in all of these studies, the measuring instruments were modified to reflect local conditions in Africa, China, and Turkey; however, this may also account

for the mixed results accounting for cultural differences. Nevertheless, in the Mahanta (2012) study, the findings were consistent with those from Allen and Meyer's (1993) study, which reported a positive and significant correlation between age and OC. However, the study revealed gender and marital status did not affect OC. Mahanta (2012) recommended that future research should be carried out with a more diverse sample to achieve generalizability. This study was a partial replication of the Mahanta (2012) study.

Findings on Organizational Commitment

The application of Allen and Meyer's (1997) concept of organizational commitment in research on job satisfaction and organizational commitment are extensive. However, although the model is still the preferred basis for future studies, it fell short in clarifying the subtle complexities and interactions between the various dimensions of organizational commitment (Sayani, & Swamy, 2014). Other criticisms were against the discriminant and content validity of the scales (Sayani, & Swamy, 2014). Thus, after reviewing the literature available and the critiques of the model, many of the established OC strategies to date have the potential to contribute a greater understanding of OC and JS and, therefore, cannot be dismissed in any future investigations of commitment.

Findings on Job Satisfaction

Shajahan and Shajahan (2004), as cited in Saif et al. (2012), posited that general job satisfaction has to do with job factors, demographics (personal and individual characteristics), group, and social dynamics. However, according to Rugman and Hodgetts (2001), Luthans and Robbins (2005) as cited in Saif et al., (2012) evidence in the seminal and contemporary literature revealed that most job satisfaction and job commitment theories originated in the United States, and align closely with American culture; therefore, job satisfaction theories could have limited

applications to other national and cultural contexts because of differences in personal characteristics among, for example, developed, developing and under-developed nations (Azim et al., 2013).

Findings on the Two-Factor Theory

As previously stated, one of the early criticisms of the Herzberg two-factor theory was that it did not consider individual differences (Locke, 1976); however, recent studies have been addressing this theoretical deficiency in the Herzberg's theory. For example, the theory neglects situational variables to motivate employees, and because of its ubiquitous structure, compensation often appears as a motivator besides hygiene. Based on the national sample used in the current study, this research could contribute to theory as it relates to the American workplace by examining other factors than those outlined by Herzberg et al. (1959). At the same time, it could address conflicting results between employees' personal characteristics, job satisfaction, and employee organizational commitment.

Summary

Chapter 2 described the results of a literature review related to JS and OC theories for its suitability and appropriateness as a framework to underpin this study. After conducting a literature review on the current topic and synthesizing the findings, a conclusion was that persistent interest in the subject remains high. For example, researchers in Africa, China, India, Turkey, and other countries recently conducted studies of the three variables of interest (employees' characteristics, employee job satisfaction, and employee organizational commitment). A discussion of the background of JS theories from the works of Hoppock, the Hawthorne Studies, Maslow, Herzberg et al. (1959), Vroom and Weiss (1964), and Weiss and Cropanzano (1996) laid the foundation of the chapter. Discussions of JS theory included an

emerging theoretical model proposed by Sahito and Vaisanen (2017). Findings concerning the relationships among these variables were inconsistent—perhaps because of, as Saif et al. (2012) noted in citing Robbins (2005), national, and cultural differences. The application of current American theories concerning job satisfaction and employee organizational commitment may not have been appropriate for application in collectivist societies since they originated in America, which is an individualist country.

The two-factor theory of employee job satisfaction (Herzberg et al., 1959), Vroom's expectancy theory (Vroom, 1964), and Affective Events theory (Weiss & Cropanzano, 1996) were evaluated. The two-factor theory was the most appropriate to serve as a framework for the current study as it is a replication-extension study based on an Indian study (Mahanta, 2012), which investigated employees' personal characteristics and employee job satisfaction as antecedents to employee organizational commitment.

Since the same variables and the similar factors of employee job satisfaction (extrinsic/hygiene factors and intrinsic/motivator factors) were used in the current study as were earlier used in the Mahanta's (2012) study, applying the two-factor theory was an appropriate and logical choice. This study could make a theoretical contribution to the field by adding personal characteristics as new variables to the existing factors, which Herzberg et al. (1959) identified as predictors of employee organizational commitment. Also, the study has the potential to clarify inconsistencies in the literature, as recent studies investigating employees' characteristics as predictors of employee organizational commitment yielded conflicting results. The arrangement of the following chapters is as follows: in Chapter 3 is a description of the methods applied to this study, followed by the reports of the analyses in Chapter 4 and interpretation of the reports in Chapter 5.

CHAPTER 3. METHODOLOGY

This chapter is an examination of the various components of the research methodology. The components include the research design, the rationale for using it for the study, the purpose of the study, as well as the philosophical approach to research, which guided the study. Also examined were the research questions that influenced the study design; the hypotheses formed to answer the research questions; the target population and the sample drawn from the population. Also discussed in the chapter are the methods used to draw the sample and analyze the data, the instruments adopted to collect the data, as well as ethical concerns related to the human participants in the study. Following these discussions is a summary of the chapter.

Purpose of the Study

The purpose of the research effort was to test the two-factor theory of employee job satisfaction (Herzberg et al., 1959) for its ability to explain the relationship between job satisfaction (the main IV), which is the combination of intrinsic satisfaction and extrinsic satisfaction, and the dependent variable (DV), organizational commitment (OC), which is measured by affective commitment (AC), continuance commitment (CC), and normative commitment (NC), and whether third set of IVs moderated the relationship between the main IV and the DV for participants at diverse organizations within the United States. The third set of IVs was employee personal characteristics of age, gender, marital status, and length of employment.

Research Questions and Hypotheses

The overarching research question(omnibus) and hypotheses are listed as follows:

RQ0: To what extent does the Herzberg two-factor theory of job satisfaction explain the relationship between overall job satisfaction and employee organizational commitment when employees' characteristics of age, tenure, gender, and marital status moderate the relationship between overall satisfaction and employee organizational commitment for employees in diverse organizations within the U.S.?

- **H₀₀:** The Herzberg two-factor theory of job satisfaction will not explain a statistically significant relationship between overall job satisfaction, and employee organizational commitment when employees' personal characteristics of age, tenure, gender and marital status moderate the relationship between overall satisfaction and employee organizational commitment for employees in diverse organizations within the U.S.
- **H_{a0}:** The Herzberg two-factor theory of job satisfaction will explain a statistically significant relationship between overall job satisfaction, and employee organizational commitment when employees' personal characteristics of age, tenure, gender and marital status moderate the relationship between overall satisfaction and employee organizational commitment for employees in diverse organizations within the U.S.

RQ1: To what extent is there an explanatory relationship between overall satisfaction and employee organizational commitment?

- **H₀₁:** There will not be a statistically significant explanatory relationship between overall job satisfaction and employee organizational commitment.
- **H_{a1}:** There will be a statistically significant explanatory relationship between overall job satisfaction and employee organizational commitment.

RQ2: To what extent do age and tenure moderate the relationship between overall job satisfaction and employee organizational commitment?

- **H₀₂:** Age and tenure will not statistically significantly moderate the relationship between overall job satisfaction and employee organizational commitment.
- **H_{a2}:** Age and tenure will statistically significantly moderate the relationship between overall job satisfaction and employee organizational commitment.

RQ3: To what extent do gender and marital status moderate the relationship between overall job satisfaction and employee organizational commitment?

- **H₀₃:** Gender and marital status will not statistically significantly moderate the relationship between overall job satisfaction and employee organizational commitment.
- **H_{a3}:** Gender and marital status will statistically significantly moderate the relationship between overall job satisfaction and employee organizational commitment.

Research Design

A researcher's worldview often drives the research question and supports the overall basis of the research design; therefore, research questions must align with appropriate study designs (Symmons, 2013). The research design is an essential issue that is fundamental to research studies in science, social studies, and numerous other disciplines (Abutabenjeh & Jaradat, 2018). The guiding question for the study was whether the Herzberg two-factor theory is appropriate for explaining or predicting relationships between overall job satisfaction (IV) and a DV (organizational commitment), which is measured by affective commitment, continuance

commitment, and normative commitment when another set of IVs (age, gender, marital status, and tenure) moderates the relationship between the IV and the DV.

To answer the research questions, the basis of the study was an explanatory/predictive correlational, cross-sectional, quantitative non-experimental design. Since relationships among variables were under investigation, a correlational design aligned with the research question (Tabachnick & Fidell, 2013). The collection of the data was at a single point in time, hence the cross-sectional nature of the design (Cummings, 2017). Unlike in experimental research, there was no manipulation of the variables of interest, and the research was non-experimental (Morgan & Renbarger, 2018). Finally, analysis of the data involved the use of statistical numbers-based methods, which made it a quantitative rather than a qualitative study. The design of the study aligned with the researcher's philosophical orientation in examining the study research question.

The philosophical orientation embodied in this research effort was postpositivist, a theme that emerged from positivism. The roots of positivist research are in quantitative methods, with a focus on the natural world. The positivist worldview assumes there is one objective reality, which is devoid of the researcher's values, opinions, and perceptions (Kuhn, 2012). A positivist oriented researcher applies objective means to measure and understand the natural world—hence the reliance on numbers-based quantitative methods such as statistical analysis, and the use of random sampling techniques (Kuhn, 2012; Mukhopadhyay & Gupta, 2014; Ouyang et al., 2019; Tekin & Kotaman, 2013). A positivist approach is appropriate for research related to the natural world but is inadequate for studies related to the social world. For this reason, postpositivism, in which both qualitative (i.e., subjective) or quantitative (i.e., objective) methods apply, emerged as a research paradigm to explore the social world, In this study, the quantitative method was appropriate method to answer the research questions.

Similar to the positivist stance, in the quantitative postpositivist paradigm, concerns of the researcher relate to ontology (the nature of reality), epistemology (how researchers come to know what they know), axiology (how the researcher's values affect the research), and methodology (the means researchers use to obtain knowledge) reasoning. The quantitative postpositivist researcher believes reality is measurable and can be gathered, analyzed, and understood objectively without the influence of personal bias. Researchers obtain knowledge by collecting data from participants; they employ close-ended surveys, conduct analysis using statistical methods, report and interpret results in numbers-based terms. Random sampling techniques are the means postpositivist researchers use to choose study participants from a target population that aligns with the purpose of the study.

Target Population and Sample

A commercial data collection company, Qualtrics, LLC, was hired to draw the study sample from the population of interest in its nationwide panel of voluntary survey participants.

Population

From Qualtrics' nationwide panel of voluntary participants, the targeted population consisted of adult employees in organizations within the United States. Included in the sample were actively employed married and unmarried men and women 18 years and older, whose education ranged from high school to advanced degree levels, and whose tenure at their organizations ranged from one year to over 17 years. The ethnic makeup of the population reflected Whites, African Americans, Hispanics or Latinos. Respondents who did not wish to identify their ethnicity chose to describe themselves as "other." The income level in the population ranged from <\$25,000 to >\$150,000. From this population, Qualtrics LLC drew the study sample from the Northeast, Midwest, South, and West regions of the United States.

Sample

From the population data, four demographic variables were used in the study: age, gender, marital status, and tenure. The sample was drawn randomly based on specific inclusion and exclusion criteria, which are as follows:

Inclusion Criteria

- Adults 18 – 65 years old.
- Participants identified as male or female gendered.
- Participants who were married or single
- Participants employed full-time for a minimum of 1 year at the time the sample was drawn.
- Participants employed in organizations within the United States (U.S.).
- Participants must be able to read and understand the English language to make an informed decision about participating in the study since information on the study was in the English language.

Exclusion Criteria

- Regardless of marital, employment, or tenure status, no participant under the age of 18 was included in the study.
- Individuals who were employed with a U.S. organization outside of the United States were ineligible to participate in the study (i.e., only employees of organizations in the U.S. were selected, and not employees of U.S. organizations' subsidiaries abroad).

- Participants who could not read and understand the English language sufficiently to make an informed decision about participating in the study were not allowed participation in the study.
- Excluded from the study, also were part-time employees.

Despite the presence of millions of adults in the American workforce, the basis of sample size determinations was on (a) heuristically determined considerations or (b) scientific calculations, and not on a percentage of the number of individuals in the workforce.

Power Analysis

In power analysis, a researcher seeks to achieve the minimum sample size that would allow an effect in the sample to be detected and to understand the statistical significance of the effect. Thus, based on the power of the sample to detect the effect with at least a 95% certainty (Chen & Chen, 2010), the G*Power 3.1.9.2 online sample calculator (Erdfelder, Faul, & Buchner, 2014) was used to scientifically calculate the minimum sample size most appropriate for the study. Calculations were based on (a) the type of statistical model used in the study and the number of variables in the study (Nunnally, 1978; Sulewski, 2018), (b) the size of an effect (f^2) that would be accepted by the researcher (Selya, Rose, Dierker, Hedeker, & Mermelstein, 2012), (c) the commonly accepted level of significance regarding the effect, which, by convention is $p = .05$, and (d) the probability of avoiding certain types of errors that can cause biases (Erdfelder et al., 2014), which can affect the results of the study.

For this study, *a priori* calculations in which the sample size was computed given α , power, and effect size were appropriate. Based on a linear multiple regression fixed model, R^2 increase eight variables, a medium effect size ($f^2 = .15$), a statistical level of significance of $p =$

.05, and a 95% chance of avoiding Type 1 or Type II errors ($1-\beta$ err. Prob), the calculated sample size was $N = 145$. Based on the literature, the relationship between the IVs and DV is statistically significant if $p < .05$; in this case, there would be no support for the null hypothesis; however, there would be support for the alternative hypothesis. On the other hand, if $p > .05$, there would be support for the null hypothesis (Tabachnick & Fidell, 2013).

Procedures

The procedures followed in the study were consistent with quantitative postpositivist research. These procedures include the processes involved in choosing participants for the study and the steps taken to protect the participants, as well as how the data were collected, analyzed, reported, and interpreted.

Participant Selection

For this study, Qualtrics, LLC collected responses through an online survey. Qualtrics, LLC applied random probability sampling techniques to draw the specifically described sample of participants from the company's panel of voluntary survey takers. The selection of participants by random sampling allowed each member of the population to have a fair and equal probability of being accepted for inclusion in the study (Kuhn, 2012; Yeomans, 2017). The use of a commercial enterprise to draw the sample removed the researcher from the selection process and removed the possibility of injecting personal bias into the study.

Protection of Participants

To ensure the participants' protection, the researcher took specific steps to ensure participants had access to enough information with which they could make an informed decision to join the study. Information about the study, its purpose, and how it might affect them was provided in clear, easily understood language. Contact numbers for the researcher and Capella's

Internal Review Board (IRB) were provided so participants could request more information about the study, pose questions, or voice concerns about the study to the IRB if they so desired. All of this information was made available online in an electronic informed consent form (ICF), which the volunteers were required to read before participation in the study. In the IFC, there were clear assurances that participation was voluntary, and members could withdraw from the study at any time, with no penalties or repercussions. After reading the form and indicating that they understood it, if they wished to participate in the study, the respondents could click on an “AGREE” button, which linked them to the survey. By clicking on the “NO” button, respondents were directed to an exit page and had no access to the survey. Once engaged in the study, although the participants provided demographic variables to paint a picture of the population and sample makeup, they did not provide personally identifiable information.

Data Collection

Qualtrics LLC collected responses from an online questionnaire for the study. Qualtrics LLC sent electronic invitations to the randomly selected members from its panel of voluntary survey-takers to participate in the study; beyond non-identifying demographic data, no personally identifiable information was collected from respondents. The company was responsible for ensuring that there were no missing values in the data, and data collection extended over approximately ten business days. Study participants completed the surveys in places and times of their convenience, and it took less than 20 minutes to complete the surveys. Qualtrics stored the data on their internal servers until completion of the collection process, after which the dataset was downloaded from the company’s servers to a removable thumb drive, accessible only to the researcher.

Data Analysis

Data analysis was conducted with the IBM Statistical Package for the Social Sciences (SPSS) version 24.0 for Windows. The testing of the hypotheses was by application of a multiple regression model in which the entry of variables into the regression equation was by a sequential or hierarchical process. Regression models are appropriate when the purpose of a study is to investigate relationships between a set of IVs and a DV, and when the researcher wishes to find the effect of the third set of IVs on the relationship (Tabachnick & Fidell, 2013). However, to perform hierarchical multiple regression analysis, the assumptions for the multiple regression model must be checked, and the choice on the order of variable entry determined (Jung & Jeong, 2016). Assumptions related to the hierarchical linear multiple regression in the study were checked to determine whether the data were a good fit for the model. Also, before the analysis, the assumptions of normality, homoscedasticity, and absence of multicollinearity were assessed.

Descriptive Statistics

Descriptive statistics were produced to analyze the data. Results from the descriptive statistics and exploratory data analysis (EDA) analyses help in describing what the data show. Graphs and charts provided visual summary representation of the data on the composition of the sample in terms of various demographical data. The demographic data related to the distribution of various characteristics in the sample and provided information on the variables used in the study. Descriptive outputs pertained to the income and educational level of participants, as well as the areas of the country from which the sample was drawn. Responses concerning job satisfaction (JS), age, gender, marital status, and job tenure are the IVs used in the sample, and organizational commitment (OC) is the DV. An assessment of the descriptive graphs, charts, and tables related to the IVs and DV helped reveal whether there was a violation of any assumption

and for a determination to be made concerning how to deal with violations. The assumptions related to the hierarchical linear multiple regression analyses were the same for a linear and standard multiple regression. These assumptions were concerned with

1. Linearity: There must be a linear relationship between the IVs and the DV collectively; examinations of scatterplots helped determine linearity.
2. Independence of errors (residuals): Adjacent residuals must be independent, i.e., not correlated; an assessment of the Durbin-Watson statistic checked this assumption.
3. Homoscedasticity of residuals (equal error variances): The variances along the regression line remain similarly distributed along the line; an assessment of the same scatterplot used to check linearity was also determined homoscedasticity.
4. Normality: There must be a normal distribution of errors or assessments of the histogram and/or the P-P Plot helped to determine the normality of the distribution of residuals.
5. Multicollinearity: None of the independent variables must correlate highly with each other; an examination of the Variance Inflation Factor (VIF) values or the Tolerance Values helped to determine check for violation of this assumption.
6. No significant outliers or influential points: No observations outside the normal distribution of residuals; if there were outliers present in the data, SPSS would produce a Casewise Diagnostics table listing outliers. When the Cook's Distance (COO) values are above 1, and Centered Leverage Value (LEV) greater than .20, outliers are influencing the data. In this case, the researcher must determine whether to remove the residuals or choose a different type of analysis.

Field (2017) suggested a check of these assumptions provides information on the accuracy of the predictions, tests the fit of the regression model to the data, determines the variance in the DV that is explained by the IVs, and tests hypotheses on the regression equation. For this study, the properties of the dataset were examined through a codebook report. An assessment of exploratory data analysis output allowed for the examination of the data for abnormalities such as outliers, which could bias results (Field, 2017). Scatter plots, histograms, and statistical tables, such as the casewise diagnostics table, were examined for normality of distribution and outliers. According to Ernst and Albers (2017), multiple regressions are robust to a violation of normality of distribution. Where outliers were present, determinations were made as to whether to remove them as they could skew the data and bias the results (Tabachnick & Fidell, 2013). Determinations were made, also, on how to handle missing cases, if there were any. All scale items were averaged to produce composite scores for data analysis (Tabachnick & Fidell, 2013); where necessary, reverse-coding functions were performed.

Hypothesis Testing

What was investigated in this study were (a) linear relationships between a set of IVs and a continuous dependent variable and (b) whether another set of IVs moderated the relationship between the IVs and the DV. The overall (omnibus) research question (RQ0) was answered by testing the null hypothesis that the two-factor theory of job satisfaction does not predict a relationship with organizational commitment, based on age, tenure gender, and marital status. Also, these results answered the main research questions RQ0, RQ1, RQ2, and RQ3. As previously mentioned, sequential (hierarchical) linear multiple regression (HLMR) procedures were used to test the hypotheses. The regression procedures produced three models: A standard

linear regression output (Model 1 of the analysis) was produced from the test of the linear relationships between overall job satisfaction (IV) and organization commitment (DV). Model 2 of the output tested the effect of age and tenure on the relationship between overall job satisfaction (JS) and organizational commitment (OC). Model 3 results showed how gender and marital status further affected the relationship between JS and OC when age and tenure were taken into consideration. Results provided the answer to the research questions. In the first model produced by the first step of the analysis, the variables age, tenure, gender, and marital status were not entered the regression equation; these were entered in the second and third steps of the analysis. Table 3 represents a summary of the analysis.

Table 3. *Summary of Data Analysis*

Research Question(s)	Type of Analysis	Descriptive Stats	Hypothesis Testing	Posthoc Analysis
RQ0 (Model 2 of the analysis)	Hierarchical linear multiple regression (HLMR)	Codebook, EDA	H ₀ 0, H _a 0	No (<i>a priori</i> analysis)
RQ1 (Model 1 of the HLMR)	Standard linear multiple regression (SLMR)		H ₀ 1, H _a 1	No (<i>a priori</i> analysis)
RQ2 (Model 1 of the HLMR)	Standard linear multiple regression (SLMR)		H ₀ 2, H _a 2	No (<i>a priori</i> analysis)
RQ3 (Model 2 of the HLMR)	Hierarchical linear multiple regression (HLMR)		H ₀ 3, H _a 3	No (<i>a priori</i> analysis)

Note: Multiple regressions addressed the four research questions. Descriptive statistics provided information with the sample. Four hypotheses were tested to answer the four research questions. Since the sample size was known, post hoc analysis was not conducted.

The results of the three models were compared. Changes in the models showed whether the second and third sets of variables moderated the relationship between the main IV and the

DV (Field, 2017; Segrin, 2010; Tabachnick & Fidell, 2013). The R statistics and the p values in the models were examined to determine if there was a statistically significant relationship between the variables as denoted by $p < .05$. When $p < .05$, there was no support for the null hypothesis, and the alternative was accepted. Conversely, $p > .05$ suggests there was support for the null hypothesis.

Statistical Model

The aim of the study was to investigate relationships (i.e. correlations) among a set of independent variables (IVs) and a continuous dependent variable (DV) when the relationship between the main IV (job satisfaction) and the DV were moderated by other IVs, (e.g., age, tenure, gender, and marital status). In this case, a hierarchical linear multiple regressions model was appropriate (Tabachnick & Fidell, 2013) and was used, also, to test hypotheses of no statistically significant relationships among the variables (Tabachnick & Fidell, 2013). Turner (2015) noted that hierarchical linear modeling provides researchers with a better method to test multilevel theories

In this study, the IVs were entered into the regression model sequentially. For example, in the first analysis in which the IVs were regressed against affective commitment (DV), the main variable of job satisfaction was entered into the regression equation first. In a second step, age and tenure were entered, and in a third and final step, gender and marital status were entered into the equation. Since three separate analyses were conducted in this study, the same three sets of IVs were regressed sequentially against each of the DVs (i.e., affective commitment, continuance commitment, and normative commitment). The hierarchical multiple regression analysis (HMRA) produced three Model Summary outputs, each of which showed the summarized results in three regression models. For example, in each Model Summary output:

Model 1 (step 1) showed the result of standard linear multiple regressions, which assessed a linear correlation between each of the DVs and the main IV (job satisfaction). In this model, the regression equation did not contain the variables that could moderate the relationship between the main IV and the DV.

Model 2 (step 2) showed the effect of entering age and tenure into the regression equation; it provided information on how age and tenure moderate the relationship between overall employee job satisfaction (IV) and each of the three dimensions of organizational commitment (OC).

Model 3 (step 3) showed the effect of entering gender and marital status into the regression equation when job satisfaction, age, and tenure were accounted for.

This type of analysis was in alignment with the purpose of the study, and with the research questions. The sequential regression model was appropriate when assessing whether the relationship between one or more IVs and DV changes, based on the moderation effect of other variables on the relationship between the IVs and the DV (Segrin, 2010). The Statistical Package for the Social Sciences (SPSS) by IBM^(R) was used to analyze the data, which allowed objectivity to be maintained in the analysis and interpretation of results.

Rationale

The approach to the study was informed by this researcher's philosophical stance, which is fundamentally positivist; therefore, objective sampling and analytical methods were applied to the design of the study, which was guided by the research questions. Since relationships among a set of IVs and a single DV was investigated, the statistical model was appropriate to test the hypotheses (Tabachnick & Fidell, 2013). Also, the types of variables supported analysis by multiple regressions. For example, hierarchical linear multiple regressions require that the DV

must be a continuous variable, and the IV and MV can be either continuous or categorical (Segrin, 2010); the variables in the proposed study fit these criteria.

Instruments

Three instruments were used to collect data for this study: (a) The Demographic Questionnaire, (b) the Employee Job Satisfaction Questionnaire (Spector, 1985), and (c) The Three Component Model (TCM) Employee Commitment Survey, which is based on the work of Allen and Meyer (1997).

Demographic Questionnaire

Employee characteristics were measured on single item questionnaires. Researcher-designed demographic data such as age, gender, marital status, and tenure (with the employee's organization); region, income level, educational level, and ethnicity were collected; no personally identifiable information (PII) such as employee phone numbers, addresses, or place of employment was gathered. Only age, gender, marital status, and tenure were used in the analysis. The purpose of collecting the other demographic information was to provide a picture of the population from which the sample was taken (Hoffmeyer-Zlotnik, 2008). The four demographic variables used in the analysis (provided in Chapter 4) measured the construct employee personal characteristics (EPC) and acted as moderating variables on the relationship between overall job satisfaction and overall organizational commitment. No reliability coefficients were reported for demographic questionnaires (Wanous et al., 1997).

The Three-Component Model (TCM) Questionnaire

To measure the organizational commitment construct, the Three-Component Model (TCM) scale was used to collect data on the three dimensions of organizational commitment, which are (a) affective, (b) continuance, and (c) normative commitment (J.P. Meyer & Allen,

1991). This scale is available online and is free to student researchers for use in a single research project. Responses to items measuring the three components of EOC were rated on a scale that ranges from 1 (*strongly disagree*) to 7 (*strongly agree*). Responses from each scale were calculated, averaged, and combined (Tabachnick & Fidell, 2013) in an SPSS procedure to gain composite scores for each of the dimensions of organizational commitment.

The Cronbach alpha (α) is an index that measures the reliability of scale instruments; it calculates every combination of correlations amongst all variables used in a study (Sullivan, 2011). An instrument is reliable if it produces consistent results when used repeatedly by other researchers at different times, in different locations (Taherdoost, 2017). A coefficient of $\alpha = 0.80$ or above denotes very high instrument reliability; high reliability is suggested when $\alpha = 0.70 - 0.79$; good reliability is an index of $\alpha = 0.60 - 0.69$, and fair reliability is when $\alpha = 0.50 - 0.59$ (Santos, 1999); when $\alpha < .50$, the instrument is considered unreliable. The reliability of the instrument contributes to its validity and is part of the assessment of the instrument's validity (Sullivan, 2011).

Validity is related to the soundness of an instrument to measure what it is supposed to measure and not something else (Maul, 2018). While several types of measures of validity are recognized in the literature, Messick (1989) proposed a theory of validity that "subsumed disparate lines of validity-related evidence under the generalized concept of construct validity" (Maul, 2018, p. 1773). TCM survey is an accepted instrument used in the current study.

Validity. An instrument is considered valid when the correlations amongst the variables are low; that is, $< .70$ or $.80$. The TCM commitment scale was examined for the model's validity and generalizability and found to be psychometrically sound (J.P. Meyer et al., 2002). According to J.P. Meyer and Allen (2004), the scale was validated in various national and international

studies. For example, Neves, Graveto, Rodrigues, Marôco, and Parreira (2018) determined the scale's validity through confirmatory analysis in a Portuguese study conducted with a sample of 850 nurses in a hospital context. Neves et al. (2018) reported that "the model demonstrated good overall fit ($\chi^2/df=6.37$; CFI=0.91; GFI=0.92; RMSEA=0.08; MECVI=0.62). The factorial structure was stable ($\lambda:\Delta\chi^2(14)=18.31$; $p=0.193$; Intercepts: $\Delta\chi^2(14)=22.29$; $p=0.073$; Covariance: $\Delta\chi^2(3)=6.01$; $p=0.111$; Residuals: $\Delta\chi^2(15)=22.44$; $p=0.097$)" (p. 1). Neves et al. concluded that the TCM scale exhibited construct and external validity, which meant it measured what it was supposed to measure, and results were generalizable beyond the study sample.

Reliability. Cronbach's alpha is one of the most extensively used measures of reliability in the organizational and social disciplines (Bonett & Wright, 2015). The Cronbach alpha reliability coefficient of the original TCM scale was reported to be .92 (Garipağaoğlu, 2013), which suggests that the psychometric property of the instrument is extremely high, and the scale measured what the researcher intended and not something else. The reliability of the subscales was as follows: for affective commitment, $\alpha = .85$; for continuance commitment, $\alpha = .79$, and for normative commitment, $\alpha = .73$ (J.P. Meyer & Allen, 1991). Reliability coefficients differ based on the size of the sample used in a study.

Overall Job Satisfaction Scale (JSS)

To measure the overall job satisfaction construct, the Job Satisfaction Survey (JSS), which was created by Dr. Paul E. Spector (1994), was used. Permission to use the instrument was granted by Dr. Spector (Appendix A). The instrument measures responses on a scale of 1 to 7, anchored at 1= *disagree very much*, and 7 = *agree very much*, with a midpoint 4 = *neutral*. The scale has been normed for use in a variety of organizational contexts, including manufacturing and retail industry sectors.

Validity. The JSS has been translated into 27 languages, including English, and has been validated in 55 studies since 1985. According to Spector (1985), the scale exhibited construct validity. Subsequent studies by Batura, Skordis-Worrall, Thapa, Basnyat, and Morrison (2016); Tsounis and Sarafis (2018) and others affirmed the construct validity of the instrument. Spector (1985) reported that data were collected from 3067 individuals who represented 17 separate samples and an average score of .70 validated the instrument for internal consistency of the instrument

Reliability. The original scale's overall reliability is 0.91, which means that it measures what it is supposed to measure, and not something else. Responses were averaged in order to obtain a composite score (Tabachnick & Fidell, 2013); therefore, the measurement level for the independent and dependent variables was an interval.

Ethical Considerations

The Belmont Report provides three basic principles that must be followed when conducting research: respect for person, beneficence, and justice (Greaney et al., 2012). The Office for Human Protections explained the three principles in the following ways.

Respect for Persons

This principle concerns an individual's right to remain autonomous, and the rights of individuals who have reduced autonomy to be protected. Maintaining one's autonomy means individuals have a right to their option with no obstruction or judgment unless it is detrimental to others. In this study, individuals with reduced autonomy were to be allowed to participate in this study.

Beneficence

Beneficence has to do with doing no harm. Individuals have a right to be protected from harm and must be respected in their decision making. Two main rules define beneficence: (a) the first provides protection against harm, and (b) the second has to do with minimizing the possibility of harm and maximizing the possibility of benefits.

Justice

This principle has to do with treating study participants fairly and equally with distinctions not based on criteria such as age, experience, deprivation, competence, and merit. The three principles were maintained by providing individuals with information about the study in clear and easy to understand language, so each person was able to comprehend how they might be affected by participation in the study. Participants were provided phone and email contact information so they could contact the researcher, or the school, with any concerns or questions.

An Adult Informed Consent form (APPENDIX E), was made available to survey respondents. This form provided information about the study, so individuals were able to make an informed consent in their decision to participate in the study or not. Guarantees of how participants are protected were explained. For example, participants were informed that no identifiable information was collected; they could quit the study at any time, with no penalties assessed against them. Contact numbers were provided in case they had questions about the study.

Furthermore, the dataset gathered from study participants were stored on a password-protected and encrypted external thumb-drive and stored in a locked file cabinet. Apart from the researcher, no one else has access to the keys to open the file cabinet. This thumb-drive will

remain in this secure location for seven years and will be available to the Capella University's IRB upon request.

Finally, all survey participants were members of the Qualtrics panel of voluntary online survey takers. Qualtrics Inc. upholds the ethical principles of beneficence, justice, and respect for persons in their sampling methods. For example, no member of the panel was treated differently from the other as the company treated each participant fairly by using random probability sampling data collection methods. Random probability sampling allowed each potential participant the same probability of being selected to participate in the study, thus demonstrating justice and respect for persons. Also, Qualtrics LLC did not collect personally identifiable information (PII) on data participants, and participants could request a copy of the final study. Altogether, these actions showed respect for persons, beneficence, and justice.

Summary

Chapter 3 provided an overview of the study methods that began with a restatement of the research question and hypotheses, study population, and sampling techniques. Offered within the chapter were explanations of the data collected and the statistical analyses used to analyze the data. Described, too, are study instruments and the psychometric properties as well as the ethical principles, which guided the protection of study participants. In the next section, chapter 4 is a report of the results of the data analyses, hypothesis testing, and the interpretations of the results.

CHAPTER 4. RESULTS

Reported in this chapter are results of three hierarchical or sequential multiple regression analyses, which assessed the relationships between the main IV, overall job satisfaction (JS) and organizational commitment (OC), and the moderating effects of four additional IVs (employees' personal characteristics) on the relationship between JS and OC. Hypotheses of no relationship between the IVs and OC were tested to answer the main research question about whether a relationship existed between JS and OC, and whether the four additional IVs moderated that relationship.

Background

The combined scores of intrinsic and extrinsic satisfaction measured overall job satisfaction (A. Kumar et al., 2011; Mosadeghrad & Ferdosi, 2013; Wanous et al., 1997), and the composite scores of affective commitment, continuance commitment, and normative commitment measured organizational commitment (Mowday et al., 1982); additionally, the individual dimensions of the organizational construct were examined to fully understand the relationships among the variables. Multiple regression model is used to explain the relationship between one continuous dependent variable and two or more independent variables (Tabachnick & Fidell, 2013). A hierarchical multiple regression model was applied in this study to assess the relationships among the variables.

Description of the Sample

G*Power 3.1.9.4 was used to calculate the sample size of $N = 145$. The sample was drawn to specific inclusion and exclusion criteria. The data were collected by Qualtrics, LLC, and SPSS was used to analyze the data. Outputs from Code Book operations provided information on the distribution of age, gender, marital status, tenure, education, and location in the sample. There was an approximately equal distribution of 18 – 33 years old ($n = 61$) and 34 – 49 years old ($n = 63$). Females ($n = 105$; 72.4%) and unmarried employees ($n = 76$, 52.4%) predominated in the sample. The tenure for most of the employees ($n = 76$, 52.4%) was 1–5 years. These are summarized in Tables 4 and 5.

Table 4. *Demographic Questionnaire*

<i>Age: How old are you?</i>	<i>Gender: What gender are you?</i>	<i>Marital status: What is your marital status?</i>	<i>Tenure: How long have you been working for this organization?</i>
1 = 18 – 33 2 = 34 – 49 3 = 50 - 65	1 = Male 2 = Female	1 = Married 2 = Unmarried	1 = 1 – 5 years 2 = 6 – 11 years 3 = 12 – 17 years 4 = over 17 years

Note: $N = 145$. The demographic questionnaire collected information on the study participant's personal characteristics of age, gender, marital status, and tenure

Table 5. *Summary of Demographic (age, gender, marital status, tenure)*

Description	Value	Count	Percentage
Age: How old are you?	1 = 18-33	61	42.1%
	2 = 34-49	63	43.4%
	3 = 50-65	21	14.5%
Gender	0 = female	0 = 105	72.4%
	1 = male	1 = 40	27.6%
Marital Status	0 = not married	0 =76	52.4%
	1 = married	1 = 69	47.6%
Tenure	1 = 1-5 years	1 =76	52.4%
	2 = 6-11 years	2 = 39	26.9%
	3 = 12-17 years	3 = 19	13.1%
	4 = > 17years	4 = 11	7.6%

Note: N= 145. Based on the sample size, counts reflect responses to sample composition based on personal demographics of age, gender, marital status, and tenure.

Summaries of other demographic data such as ethnicity (Table 6), educational level (Table 7), income (Table 8), and region (Table 9) were collected to provide a picture of the population from which the sample was drawn.

Table 6. *Summary of Ethnicity Distribution*

Description	Value	Count	Percentage
Ethnicity	1 = White	1 = 121	83.4%
	2 =African American	2 = 11	7.6%
	3 = Hispanic or Latino	3 = 9	6.2%
	4 = Other	4 = 4	2.8%

Note: N= 145. Based on the sample size, counts reflect the ethnic composition of study participants.

For ethnicity (Table 6), there was a much greater distribution of whites in the sample ($n = 121$) compared with other ethnic groups.

Table 7. *Summary of Educational Level Distribution*

Description	Value	Count	Percentage
Education	1 = less than high school	1 = 0	0%
	2 = completed some high school	2 = 6	4.1%
	3 = high school graduate	3 = 54	37.2%
	4 = completed college	4 = 75	51.7%
	5 = advanced degree	5 = 10	6.9%

Note: $N = 145$. Based on the sample size, counts reflect the educational level of study participants.

The distribution of educational level in the sample (Table 7) showed that most of the employees participating in the study held college degrees ($n = 75$; 51.7%), and a small percentage held advanced degrees ($n = 10$; 6.9%).

Table 8. *Summary of Income Distribution*

Description	Value	Count	Percentage
Income	1 = less than \$25,000	1 = 22	15.2%
	2 = \$25,000 - \$49,000	2 = 46	31.7%
	3 = \$50,000 - \$100,000	3 = 52	35.9%
	4 = \$101,000 - \$150,000	4 = 20	13.8%
	5 = \$151,000 or more	5 = 5	3.4%

Note: $N = 145$. Based on the sample size, counts reflect the salary ranges of study participants.

The highest distribution of *income* (Table 8) ranged from \$50,000 to \$100,000 ($n = 52$, 35.9%), and more employees ($n = 22$, 15.2%) fell in the 1 = less than \$25,000 range compared to those employees ($n = 20$, 13.8%) whose earnings ranged from \$101, 000 to \$150,000.

Table 9. *Summary of Region Distribution (U.S.)*

Description	Value	Count	Percentage
Region	1 = Northeast	1 = 37	25.5%
	2 = Midwest	2 = 38	26.4%
	3 = South	3 = 59	40.7%
	4 = West	4 = 11	7.6%

Note: $N = 145$. Based on the sample size, counts reflect responses from each demographic area within the U.S.

The highest concentration of employees (Table 9) was from the South ($n = 59$, 40.7%), and the distribution of employees in the Northeast ($n = 37$, 25.5%) was similar to the Midwest ($n = 38$, 26.4%). Results for the distribution of the responses collected to the questions that gathered data on the variables of interest were also reported in the tables that follow (Table 10, Table 11). These variables of interest are on the three dimensions of the DV, organizational commitment (OC), and the main IV, overall job satisfaction.

Table 10. *Summary Distribution of Affective, Continuance, and Normative Commitment*

Description	Value	Count	Percentage
Affective Commitment	1 = <i>strongly disagree</i>	1 = 0	0%
	2 = <i>disagree</i>	2 = 3	2.1%
	3 = <i>slightly disagree</i>	3 = 5	3.4%
	4 = <i>undecided</i>	4 = 17	11.7%
	5 = <i>slightly agree</i>	5 = 3	2.1%
	6 = <i>agree</i>	6 = 2	1.4%
	7 = <i>strongly agree</i>	7 = 2	1.4%
Continuance Commitment	1 = <i>strongly disagree</i>	1 = 1	0.7%
	2 = <i>disagree</i>	2 = 0	0.0%
	3 = <i>slightly disagree</i>	3 = 3	2.1%
	4 = <i>undecided</i>	4 = 4	2.8%
	5 = <i>slightly agree</i>	5 = 9	6.2%
	6 = <i>agree</i>	6 = 5	3.4%
	7 = <i>strongly agree</i>	7 = 0	0.0%
Normative Commitment	1 = <i>strongly disagree</i>	1 = 0	0.0%
	2 = <i>disagree</i>	2 = 1	0.7%
	3 = <i>slightly disagree</i>	3 = 1	0.7%
	4 = <i>undecided</i>	4 = 11	7.6%
	5 = <i>slightly agree</i>	5 = 10	6.9%
	6 = <i>agree</i>	6 = 1	0.7%
	7 = <i>strongly agree</i>	7 = 0	0.0%

Note: $N = 145$. Based on the sample size, counts reflect responses to each question in each of the commitment scale.

The three dimensions of overall commitment are affective commitment (AC), continuance commitment (CC), and normative commitment (NC); responses on these variables range from 1 = *strongly disagree* to 7 = *strongly agree*.

Table 11. Summary Distribution of Dimensions of Job Satisfaction and Overall Job Satisfaction

Description	Value	Count	Percentage
Job satisfaction: Promotion	1 = <i>disagree very much</i>	1 = 5	3.4%
	2 = <i>disagree moderately</i>	2 = 6	4.1%
	3 = <i>disagree slightly</i>	3 = 5	3.4%
	4 = <i>neutral</i>	4 = 11	7.6%
	5 = <i>agree slightly</i>	5 = 5	3.4%
	6 = <i>agree moderately</i>	6 = 7	4.8%
	7 = <i>agree very much</i>	7 = 4	2.8%
Job satisfaction: Nature of Work	1 = <i>disagree very much</i>	1 = 0	0.0%
	2 = <i>disagree moderately</i>	2 = 0	0.0%
	3 = <i>disagree slightly</i>	3 = 3	2.1%
	4 = <i>neutral</i>	4 = 16	11.0%
	5 = <i>agree slightly</i>	5 = 14	9.7%
	6 = <i>agree moderately</i>	6 = 10	6.9%
	7 = <i>agree very much</i>	7 = 15	10.3%
Job satisfaction: Contingency Rewards	1 = <i>disagree very much</i>	1 = 3	2.1%
	2 = <i>disagree moderately</i>	2 = 3	2.1%
	3 = <i>disagree slightly</i>	3 = 12	8.3%
	4 = <i>neutral</i>	4 = 14	9.7%
	5 = <i>agree slightly</i>	5 = 9	6.2%
	6 = <i>agree moderately</i>	6 = 6	4.1%
	7 = <i>agree very much</i>	7 = 7	4.8%
Job satisfaction: Pay	1 = <i>disagree very much</i>	1 = 7	4.8%
	2 = <i>disagree moderately</i>	2 = 4	2.8%
	3 = <i>disagree slightly</i>	3 = 5	3.4%
	4 = <i>neutral</i>	4 = 12	8.3%
	5 = <i>agree slightly</i>	5 = 8	5.5%
	6 = <i>agree moderately</i>	6 = 5	3.4%
	7 = <i>agree very much</i>	7 = 1	0.7%
Job satisfaction: Fringe benefits	1 = <i>disagree very much</i>	1 = 6	4.1%
	2 = <i>disagree moderately</i>	2 = 2	1.4%
	3 = <i>disagree slightly</i>	3 = 2	1.4%
	4 = <i>neutral</i>	4 = 31	21.4%
	5 = <i>agree slightly</i>	5 = 7	4.8%
	6 = <i>agree moderately</i>	6 = 10	6.9%
	7 = <i>agree very much</i>	7 = 6	4.1%

Table 11. *Summary Distribution of Dimensions of Job Satisfaction and Overall Job Satisfaction (Continued).*

Description	Value	Count	Percentage
Job satisfaction:			
Supervision	1 = <i>disagree very much</i>	1 = 0	0.0%
	2 = <i>disagree moderately</i>	2 = 1	0.7%
	3 = <i>disagree slightly</i>	3 = 4	2.8%
	4 = <i>neutral</i>	4 = 26	17.9%
	5 = <i>agree slightly</i>	5 = 2	1.4%
	6 = <i>agree moderately</i>	6 = 9	6.2%
	7 = <i>agree very much</i>	7 = 18	12.4%
Job satisfaction:			
Operating conditions	1 = <i>disagree very much</i>	1 = 7	4.8%
	2 = <i>disagree moderately</i>	2 = 4	2.8%
	3 = <i>disagree slightly</i>	3 = 10	6.9%
	4 = <i>neutral</i>	4 = 15	10.3%
	5 = <i>agree slightly</i>	5 = 11	7.6%
	6 = <i>agree moderately</i>	6 = 1	0.7%
	7 = <i>agree very much</i>	7 = 3	2.1%
Job satisfaction:			
Coworkers	1 = <i>disagree very much</i>	1 = 0	0.0%
	2 = <i>disagree moderately</i>	2 = 0	0.0%
	3 = <i>disagree slightly</i>	3 = 1	0.7%
	4 = <i>neutral</i>	4 = 18	12.4%
	5 = <i>agree slightly</i>	5 = 6	4.1%
	6 = <i>agree moderately</i>	6 = 12	8.3%
	7 = <i>agree very much</i>	7 = 9	6.2%
Job satisfaction:			
Communication	1 = <i>disagree very much</i>	1 = 2	1.4%
	2 = <i>disagree moderately</i>	2 = 1	0.7%
	3 = <i>disagree slightly</i>	3 = 8	5.5%
	4 = <i>neutral</i>	4 = 22	15.2%
	5 = <i>agree slightly</i>	5 = 9	6.2%
	6 = <i>agree moderately</i>	6 = 4	2.8%
	7 = <i>agree very much</i>	7 = 6	4.1%
Overall (Total) Job satisfaction: (the average score of the combined average of extrinsic and intrinsic satisfaction)			
	1 = <i>disagree very much</i>	1 = 0	0.0%
	2 = <i>disagree moderately</i>	2 = 0	0.0%
	3 = <i>disagree slightly</i>	3 = 0	0.0%
	4 = <i>neutral</i>	4 = 1	0.7%
	5 = <i>agree slightly</i>	5 = 0	0.0%
	6 = <i>agree moderately</i>	6 = 2	1.4%
	7 = <i>agree very much</i>	7 = 0	0.0%

Note: $N = 145$. Based on the sample size, counts reflect responses to each question pertaining to job satisfaction and job commitment.

Before the Codebook reports were run, it was necessary to perform certain data management and data transformation procedures; these exercises are described in the following sections.

Data Management and Data Transformation

Data management procedures included reverse coding and relabeling specified items in the job satisfaction (IV) and organizational commitment (DV) scales. Reverse coding involved changing the order of a few of the response values in the datasets so that a value of 1 took on the value for 7 or vice-versa (Table 12).

Table 12. *Reverse Coded Values for Organizational Commitment Scale*

Description	Old Value	Recoded Value
Affective Commitment responses for: AC4, AC5, AC8	1 = <i>strongly disagree</i>	7 = <i>strongly disagree</i>
	2 = <i>disagree</i>	6 = <i>disagree</i>
	3 = <i>slightly disagree</i>	5 = <i>slightly disagree</i>
	4 = <i>undecided</i>	4 = <i>undecided</i>
	5 = <i>slightly agree</i>	3 = <i>slightly agree</i>
	6 = <i>agree</i>	2 = <i>agree</i>
	7 = <i>strongly agree</i>	1 = <i>strongly agree</i>
Continuance Commitment responses for: CC1, CC4	1 = <i>strongly disagree</i>	7 = <i>strongly disagree</i>
	2 = <i>disagree</i>	6 = <i>disagree</i>
	3 = <i>slightly disagree</i>	5 = <i>slightly disagree</i>
	4 = <i>undecided</i>	4 = <i>undecided</i>
	5 = <i>slightly agree</i>	3 = <i>slightly agree</i>
	6 = <i>agree</i>	2 = <i>agree</i>
	7 = <i>strongly agree</i>	1 = <i>strongly agree</i>
Normative Commitment responses for: NC2, NC3, NC8	1 = <i>strongly disagree</i>	7 = <i>strongly disagree</i>
	2 = <i>disagree</i>	6 = <i>disagree</i>
	3 = <i>slightly disagree</i>	5 = <i>slightly disagree</i>
	4 = <i>undecided</i>	4 = <i>undecided</i>
	5 = <i>slightly agree</i>	3 = <i>slightly agree</i>
	6 = <i>agree</i>	2 = <i>agree</i>
	7 = <i>strongly agree</i>	1 = <i>strongly agree</i>

Note: N = 145. Responses reflect the effect of reversing actions.

The values in eight of the responses were reverse coded so that a value of 1 = *strongly agree* became 7 = *strongly disagree*, and thus took on the opposite meaning from the statements. For example, in the organizational commitment scale, in response to the AC5 item/question in the affective continuance scale “I do not feel like 'part of the family' at my organization,” 1 = *strongly disagree* becomes 1 = *strongly agree*. Three of the recoded responses were in the affective commitment scale, two were in the continuance commitment scale, and three were in the normative commitment scale. Similarly, responses in the job satisfaction scale were re-coded according to specifications on the use of the scale (Spector, 1994); these are summarized in Table 13. After recoding the items, each was relabeled; for example, item the suffix “_r” was added after the label of the item such that AC5 was relabeled “AC5_r”.

Table 13. *Recoded Values for Organizational Commitment Scale*

Description	Old Value	Recoded Value
Job satisfaction responses for:	1 = <i>disagree very much</i>	7 = <i>disagree very much</i>
PS_1.1; NW_1.2; CR_2.3, 3.3, 4.3;	2 = <i>disagree moderately</i>	6 = <i>disagree moderately</i>
PYS_2.4; FB_1.5, FB_4.5; SS_2.6, 3.6;	3 = <i>disagree slightly</i>	5 = <i>disagree slightly</i>
OC_1.7, OC_3.7, OC_4.7; CW_2.8,	4 = <i>neutral</i>	4 = <i>neutral</i>
CW_4.8; COMM_2.9, 3.9, 4.9	5 = <i>agree slightly</i>	3 = <i>agree slightly</i>
	6 = <i>agree moderately</i>	2 = <i>agree moderately</i>
	7 = <i>agree very much</i>	1 = <i>agree very much</i>

Note. PS=promotion satisfaction; NW=nature of work satisfaction; CR=contingent rewards satisfaction; PYS=pay satisfaction; FB=fringe benefits satisfaction; SS=supervision satisfaction; OC=operating conditions satisfaction; CW=coworkers' satisfaction; COMM=communication satisfaction.

After recoding and relabeling the responses, further transformations involved obtaining an average score of the responses that measured the variables, which created new variables; this step was necessary to be able to analyze the data (Tabachnick & Fidell, 2013). The scores for affective, continuance, and normative commitment were averaged into individual scores and

reabeled *affect_avg*; *continuance_avg*, and *normative_avg*. Likewise, the scores for the nine dimensions of job satisfaction were averaged into a single score and relabeled *jobsat_m*. Other transformations included the creation of dummy variables of the categorical variables for gender and marital status (Tabachnick & Fidell, 2013), which were among the moderating variables. In the case of *gender*, the value of 0 was assigned to female (0 = *female*), and 1 to male (1 = *male*). In the following sections, the instruments and their psychometric properties are described.

Measurement of the Variables

The main IV and the DV are scale variables, and of the four single-item demographic variables examined for their moderating effect on the relationship between the IV and the DV, two are scale variables (age, tenure), and two were categorical variables but were converted into scale variables by transforming them into dummy variables (Tabachnick & Fidell, 2013).

Instrument Reliability and Validity

Instrument reliability addresses the consistency of an instrument and is a “precondition for validity” (Maul, 2018, p. 1771). Reliability is measured by the Cronbach alpha coefficient (α), which is one of the most used indexes on instrument reliability. An instrument is said to be highly reliable when the coefficient α is greater than .80 ($\alpha > .80$). When α ranges from $\alpha = .70$ to .79, the instrument is considered very reliable. When the range of α is from .60 to .69, the instrument is considered reliable; instruments that fall in the range of $\alpha = 0.50 - 0.59$ are considered reliable, and when $\alpha < .50$ the instrument is considered less than reliable (Gushta & Rupp, 2010). Reliability statistics are generally not computed for single-item variables (Wanous et al., 1997). The reliability of an instrument lends to its validity. Reliability and validity evidence for the job satisfaction scales and the organizational commitment scales are presented in the following sections.

The Employee Job Satisfaction Scale (IV): Intrinsic and Extrinsic Satisfaction

The Employee Job Satisfaction Scale (Spector, 1985) consists of two subscales: The Intrinsic Job Satisfaction Scale (IJSS) and the Extrinsic Job Satisfaction Scale (EJSS). The IJSS is made up of three subsections that contain four-item statements in each section: in all, 12 items in the scale. The EJSS has six subsections, each with four items per section; altogether, the scale contains 24 items or statements.

Reliability: intrinsic job satisfaction scale (IJSS). The items measured on the IJSS relate to the promotion, nature of work, and contingent rewards. Based on the size of the sample used in this study ($N = 145$), the overall reliability coefficient for the IJSS is $\alpha = .796$. Reliability coefficients for the individual dimensions of the scale are summarized in Table 14.

Reliability: extrinsic job satisfaction scale (EJSS). The dimensions of extrinsic job satisfaction measured were pay satisfaction and pay raises, fringe benefits, supervision, operating conditions, co-workers, and communication. Based on the size of the sample used in this study ($N = 145$), the overall reliability coefficient for the EJSS is $\alpha = .769$. Altogether, the total scale reliability is $\alpha = .782$. The overall reliability of the original EJS scale was $\alpha = .69$. In a recent study, the overall scale reliability of the TCM Employee Commitment Survey scale instrument was .92 (Garipağaoğlu, 2013). The scale exhibited very high psychometric properties and is very reliable. Reliability coefficients for the individual and overall dimensions of the scale are summarized in Table 14.

Table 14. *Reliability Statistics for the Intrinsic Dimension of the Employee Job Satisfaction Scale*

Description	Cronbach α
Overall Intrinsic Dimension of the Employee Job Satisfaction Scale	.796
Promotion	.845
Nature of work	.761
Contingent rewards	.783
Overall Extrinsic Dimension of the Employee Job Satisfaction Scale	.769
pay satisfaction and pay raises	.815
fringe benefits	.793
supervision	.801
operating conditions	.759
co-workers	.649
Communication	.802
Overall Reliability of the Employee Job Satisfaction Scale	.782

Note: Good to high instrument reliability is evident when the Cronbach alpha index ranges from $\alpha > .70$ to $\alpha > .79$

Validity. Low correlations amongst the variables showed discriminant validity as correlations between the DVs, and the IVs (overall job satisfaction, age, tenure, gender, and marital status) were less than .80 (Table 15).

The TCM Employee Organizational Commitment Questionnaire

The organizational commitment scale (Allen & Meyer, 1990) is made up of three subscales, which measure affective commitment, continuance commitment, and normative commitment. Each subscale is composed of eight items with responses ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The overall reliability of the scale in this study is $\alpha = .72$.

Reliability: Affective commitment (AC) scale. Of the eight items that comprise the AC scale, three required reverse coding, as shown in Table 12. Based on the sample size for this study, the Cronbach alpha reliability coefficient for this scale is $\alpha = .824$.

Reliability: Continuance commitment scale. Of the eight items that comprise the AC scale, two required reverse coding, as shown in Table 12. Based on the sample size for this study, the Cronbach alpha reliability coefficient for this scale is $\alpha = .665$.

Reliability: Normative commitment scale. Of the eight items that comprise the AC scale, three required reverse coding, as shown in Table 12. Based on the sample size for this study, the Cronbach alpha reliability coefficient for this scale is $\alpha = .671$.

Validity. The high Cronbach α coefficients and low correlations amongst the variables helped to establish the validity of the scale; correlations coefficients were all $< .80$ (Table 15, Table 16, and Table 17), which further established the instrument's validity.

Table 15. *Correlation Matrix of IVs vs. Affective Commitment*

		Affect avg	Overall Job Sat_mean	Age	Tenure	Gender*	Marital** status
Pearson Correlation	Affect_avg	1.000	.	.	.	.	.
	Overall Job Sat_mean	.710	1.000	.	.	.	.
	Age	.091	-.017	1.000	.	.	.
	Tenure	.063	.037	.492	1.000	.	.
	Gender	-.054	-.052	.243	.222	1.000	.
	Marital	.060	-.006	.277	.141	.153	1.000

Note: *Gender is dummy coded 0 = female, 1 = male. **Marital Status is dummy-coded 0 = not married, 1 = married.

In Table 16, correlations between the DV (continuance commitment) and the IVs (overall job satisfaction, age, gender, marital status, and tenure) were less than .70.

Table 16. *Correlation Matrix of IVs vs. Continuance Commitment*

		Cont avg	Overall Job Sat_mean	Age	Tenure	Gender*	Marital** status
Pearson Correlation	Cont_avg	1.000	.	.	.	.	.
	Overall Job Sat_mean	.123	1.000	.	.	.	.
	Age	.057	-.017	1.000	.	.	.
	Tenure	-.003	.037	.492	1.000	.	.
	Gender	-.095	-.052	.243	.222	1.000	.
	Marital	-.044	-.006	.277	.141	.153	1.000

Note: *Gender is dummy coded 0 = female, 1 = male. **Marital Status is dummy-coded 0 = not married, 1 = married

Correlations between the DV (normative commitment) and the IVs (overall job satisfaction, age, gender, marital status, and tenure) were less than .70 (Table 17).

Table 17. *Correlation Matrix of IVs vs. Normative Commitment*

		Norm avg	Overall Job Sat mean	Age	Tenure	Gender*	Marital** status
Pearson Correlation	Norm_avg	1.000	.	.	.	.	.
	Overall Job Sat_mean	.320	1.000	.	.	.	.
	Age	.139	-.017	1.000	.	.	.
	Tenure	.136	.037	.492	1.000	.	.
	Gender	-.042	-.052	.243	.222	1.000	.
	Marital	.098	-.006	.277	.141	.153	1.000

Note: *Gender is dummy coded 0 = female, 1 = male. **Marital Status is dummy-coded 0 = not married, 1 = married

To determine the fit of the data to conduct the analysis using a multiple regression model, the researcher checked the assumptions about the data; results are reported in the following sections.

Check of Assumptions

The assumptions made about the data concern independence of errors (residuals), linearity, homoscedasticity of residuals (equal error variances), multicollinearity, no significant outliers or influential points, and normal distribution of errors or residuals. According to Meuleman, Loosveldt, and Emonds (2014), linearity, normality, homoscedasticity, and independence of errors are the four most important conditions required to conduct multiple regression analyses, which can be assessed by examining the scatterplot graph outputs from the analyses.

Linearity. Scatterplots of the IVs regressed against each of the DVs were examined to determine if a linear relationship existed between the IVs and each of the DVs. If the data points form curved or cone-shaped patterns in the scatterplot, linearity does not exist.

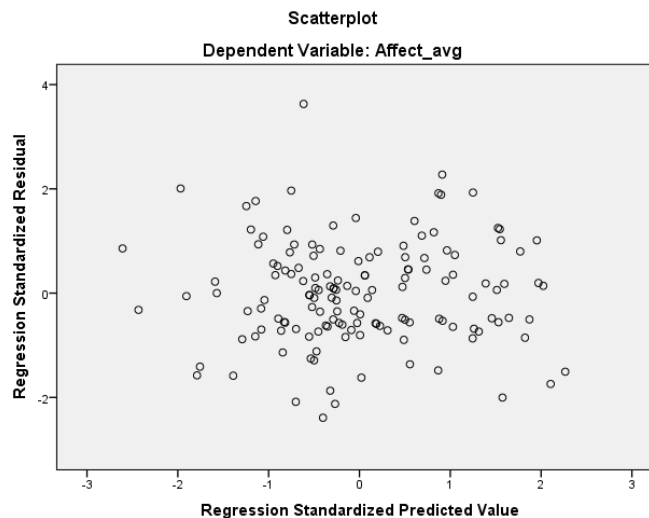


Figure 4. Affective commitment: Check for linearity (ZRESID x ZPRED).

The residuals in the scatterplot (Figure 4), which showed the regression of affective commitment (DV) against the five independent variables, were not curved or cone-shaped, but were more or less rectangularly distributed; this is indicative of linearity.

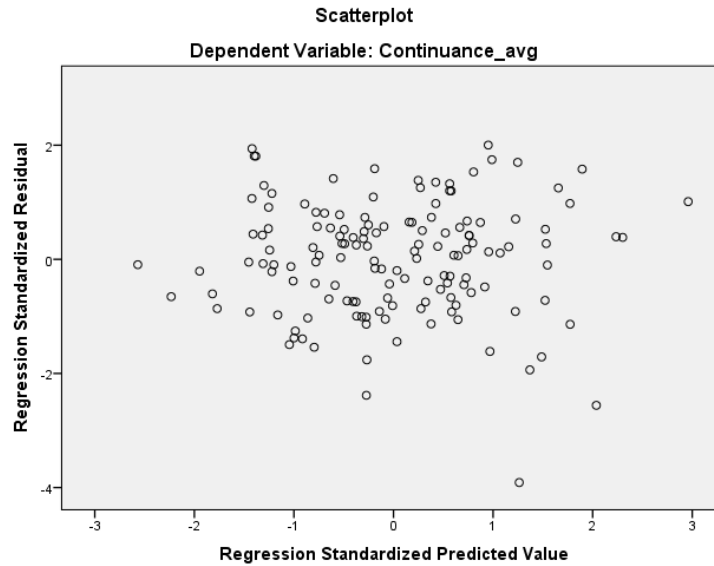


Figure 5. Continuanace commitment: Check for linearity (ZRESID x ZPRED)

The residuals in the scatterplot (Figure 5), which showed the regression of continuanace commitment (DV) against the five independent variables, were more or less rectangularly distributed; this is indicative of linearity.

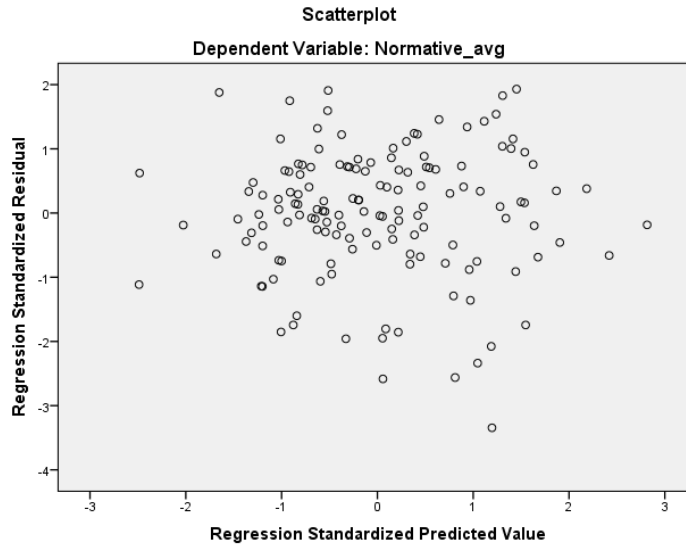


Figure 6. Normative commitment: Check for linearity (ZRESID x ZPRED)

The residuals in the scatterplot (Figure 6), which showed the regression of normative commitment (DV) against the five independent variables, were more or less rectangularly distributed; this is indicative of linearity.

Homoscedasticity of residuals (equal error variances). The scatterplots that were assessed to determine linearity were also used to check for homoscedasticity (Figures 4, 5, 6). The distribution of residuals in the scatterplots was in a more or less rectangular pattern.

Normal distribution of errors or residuals. the Kolmogorov-Smirnov statistic, histograms, or the normal p-p plot provides statistical and graphical information on the distribution of the residuals. The Normal P-P plots (Figure 7, Figure 8, and Figure 9) were used to determine the normality of distribution when the five IVs were regressed against the three separate DVs (AC, CC, and NC). When the data points fall approximately along the regression line and approximately line up along the endpoints of the line, normality is shown.

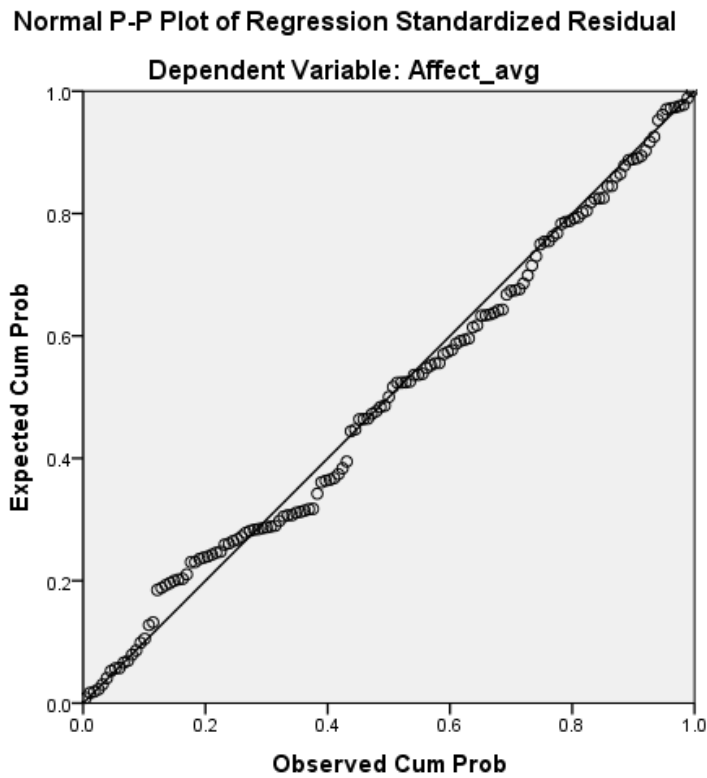


Figure 7. Affective commitment: Test of normality of distribution.

An assessment of the Normal P-P Plot, which showed the regression of the five IVs against the DV, affective commitment (Figure 7), indicated the residuals approximately following the regression line, and lined up against the endpoints of the line.

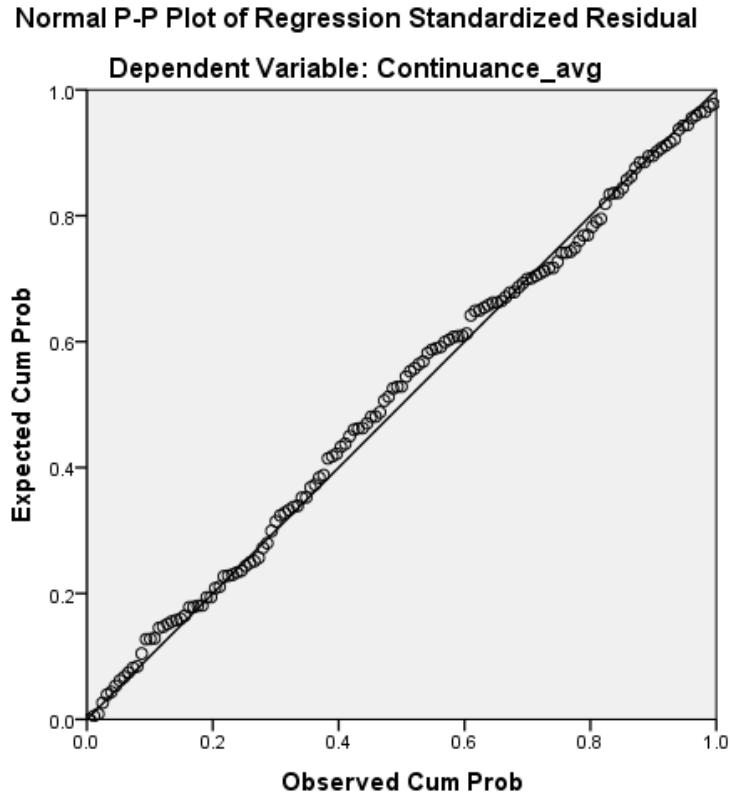


Figure 8. Continuance commitment: Test of normality of distribution.

An assessment of the Normal P-P Plot, which showed the regression of the five IVs against the DV, continuance commitment (Figure 8), indicated the residuals approximately following the regression line, and lined up against the endpoints of the line.

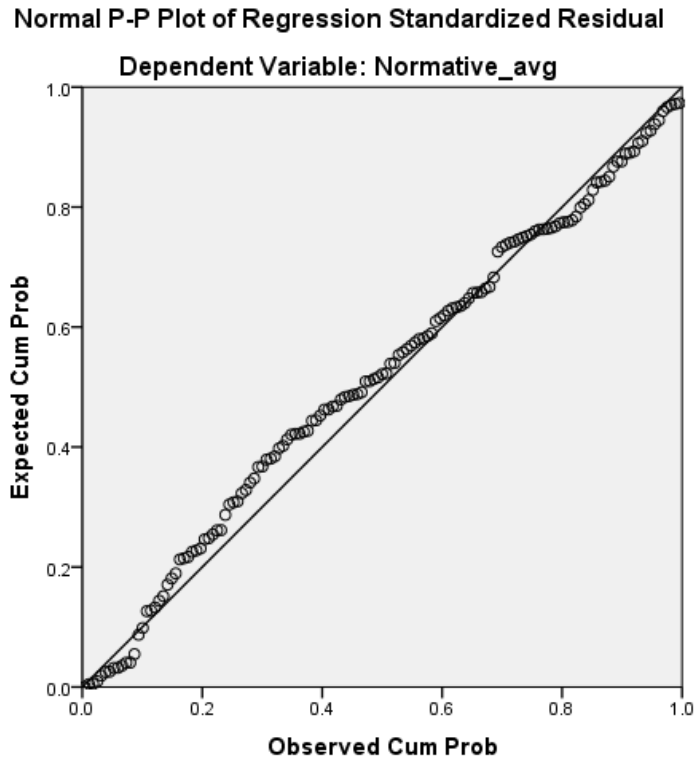


Figure 9. Commitment: Test of normality of distribution.

An assessment of the Normal P-P Plot, which showed the regression of the five IVs against the DV, normative commitment (Figure 9), indicated the residuals approximately following the regression line, and lined up against the endpoints of the line.

Independence of errors (residuals). The Durbin-Watson (D-W) statistic, found in the Model Summary output, was assessed to determine whether there was independence of errors or uncorrelatedness among the residuals. The D-W statistic varies between 0 and 4. Values of less than 1 or greater than 3 are considered problematic (Tabachnick & Fidell, 2013). When this statistic is 2.00, or close to it, there occurs independence of errors. Table 18 summarizes the D-W statistic for each of the three regression procedures; none was less than one or greater than 3.

Table 18. *Durbin-Watson Statistics: Check of Independence of errors*

Description	D-W Statistic
JS, age, tenure, gender, marital status vs. AC	1.855
JS, age, tenure, gender, marital status vs. CC	1.678
JS, age, tenure, gender, marital status vs. NC	2.098

Note: AC = affective commitment; CC = continuance commitment; NC = normative commitment

Besides the four key assumptions, the data were checked for multicollinearity and significant outliers.

Multicollinearity. Multicollinearity is evident when two independent variables are highly correlated with each other (Tamura et al., 2019). When this occurs, it is difficult to tell which variable is influencing variances in the DV. An assessment of the Pearson's correlation coefficients (Table 15, Table 16, and Table 17) and the Tolerance or VIF statistics (Table 19, Table 20, and Table 21) determined whether multicollinearity existed. A collinearity problem exists if correlations among the IVs are greater than .80; the correlations among the IVs were less than .80.

Table 19. *Job Satisfaction, Age, Tenure, Gender, Marital Status: TIF and LEV Values*

Independent Variables	TIF	LEV
Overall Job Satisfaction mean	.994	1.006
Age: How old are you?	.701	1.427
Tenure: How long have you been working for this organization?	.744	1.344
Gender Dummy Coded	.916	1.092
Marital Dummy-coded	.915	1.092

Note. Affective Commitment, DV

When the Tolerance statistic is less than .01, and when the VIF statistic is greater than 10, a collinearity problem exists (Kahane, 2008). When the five IVs were regressed against the DV, affective commitment (Table 19), none of the Tolerance values was less than .01, and none of the VIF values was greater than 10.

Table 20. *Job Satisfaction, Age, Tenure, Gender, Marital Status: TIF and LEV Values*

Independent Variables	TIF	LEV
Overall Job Satisfaction mean	.994	1.006
Age: How old are you?	.701	1.427
Tenure: How long have you been working for this organization?	.744	1.344
Gender Dummy Coded	.916	1.092
Marital Dummy-coded	.915	1.092

Note. Continuance Commitment, DV

When the five IVs were regressed against the DV, continuance commitment (Table 20), none of the Tolerance values were less than .01, and none of the VIF values were greater than 10.

Table 21. *Job Satisfaction, Age, Tenure, Gender, Marital Status: TIF and LEV Values*

Independent Variables	TIF	LEV
Overall Job satisfaction mean	.994	1.006
Age: How old are you?	.701	1.427
Tenure: How long have you been working for this organization?	.744	1.344
Gender Dummy Coded	.916	1.092
Marital Dummy-coded	.915	1.092

Note. Normative Commitment, DV

When the five IVs were regressed against the DV, normative commitment (Table 21), none of the Tolerance values were less than .01, and none of the VIF values were greater than 10.

No significant outliers or influential points. Outliers are data points that are far away from other data points; they can skew the results in regression analyses as they can have a negative effect on the data. In each of the three regression analyses, there was a single outlier, which did not affect the fitness of the data to conduct the analysis. In the first analysis in which the five IVs were regressed against affective commitment (DV), case number 8 was the outlier. In the second analysis, in which the IVs were regressed against continuance commitment (DV), case number 18 was the outlier. In the third analysis in which the IVs were regressed against normative commitment, case number 80 was the outlier. A decision was made to leave the outliers in the dataset as an assessment of the COO and LEV coefficients showed that the outliers exerted no undue influence in the dataset, as no leverage (LEV) value was greater than 0.2, and no Cook's Distance (COO) values were above 1.

Hypothesis Testing

There are three dimensions to employee organizational commitment (EOC); these are (a) affective commitment, (b) continuance commitment, and (c) normative commitment. In this study, five IVs were entered into the regression equations and regressed against three separate DVs, which are the individual dimensions of organizational commitment (affective commitment, continuance commitment, and normative commitment). Altogether, three regression procedures were performed. This procedure produced three separate regression summary outputs. For each output, the main IV was overall *job satisfaction* (JS); the second set of IVs was *age* and *tenure*, and the third set was *gender* and *marital status*. The research questions and the hypotheses were

restated; following the restatement are the results of the regression analyses, which tested the null hypotheses and provided answers to the research questions.

Research Questions and Hypotheses

RQ0: To what extent does the Herzberg two-factor theory of job satisfaction explain the relationship between overall job satisfaction and employee organizational commitment when employees' characteristics of age, tenure, gender, and marital status moderate the relationship between overall satisfaction and employee organizational commitment for employees in diverse organizations within the U.S.?

- **H₀₀:** The Herzberg two-factor theory of job satisfaction will not explain a statistically significant relationship between overall job satisfaction, and employee organizational commitment when employees' personal characteristics of age, tenure, gender and marital status moderate the relationship between overall satisfaction and employee organizational commitment for employees in diverse organizations within the U.S.
- **H_{a0}:** The Herzberg two-factor theory of job satisfaction will explain a statistically significant relationship between overall job satisfaction, and employee organizational commitment when employees' personal characteristics of age, tenure, gender and marital status moderate the relationship between overall satisfaction and employee organizational commitment for employees in diverse organizations within the U.S.

RQ1: To what extent is there an explanatory relationship between overall satisfaction and employee organizational commitment?

- **H₀₁:** There will not be a statistically significant explanatory relationship between overall job satisfaction and employee organizational commitment.

- **H_{a1}**: There will be a statistically significant explanatory relationship between overall job satisfaction and employee organizational commitment.

RQ2: To what extent do age and tenure moderate the relationship between overall job satisfaction and employee organizational commitment?

- **H₀₂**: Age and tenure will not statistically significantly moderate the relationship between overall job satisfaction and employee organizational commitment.
- **H_{a2}**: Age and tenure will statistically significantly moderate the relationship between overall job satisfaction and employee organizational commitment.

RQ3: To what extent do gender and marital status moderate the relationship between overall job satisfaction and employee organizational commitment?

- **H₀₃**: Gender and marital status will not statistically significantly moderate the relationship between overall job satisfaction and employee organizational commitment.
- **H_{a3}**: Gender and marital status will statistically significantly moderate the relationship between overall job satisfaction and employee organizational commitment.

The main independent variable (IV) is job satisfaction, which was regressed against each of the DVs that makeup employee organizational commitment (affective commitment, continuance commitment, and normative commitment) in the first step of the regression equation. Besides the main IV, four more IVs (*age, tenure, gender, and marital status*) were

entered sequentially into the regression equation in three steps or blocks, which produced three Model Summary tables. Results were examined for their effect on the relationship between job satisfaction and each of the three DVs.

The Model Summary table reflected results from the procedure in three regression models. For example, in the first model (Model 1), the IV (job satisfaction) was regressed against affective commitment (DV). Model 2 shows the result when, in a second step, *age* and *tenure* were entered into the regression equation, along with the main IV, job satisfaction. Model 3 shows the results when *gender* and *marital status* were entered into the equation in a third step. The Model Summary table also shows results that relate to the correlation between the IVs and the DV (in the *R* column), the percentage of variance in the DV caused by the IVs, and whether or not the relationship between the IVs and the DV are statistically significant (Table 22, Table 23, and Table 24).

Table 22. Model Summary: IVs vs. Affective Commitment (*Affect_avg*, DV)

Model	R	R - Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.710 ^a	.504	.500	.83348	.504	145.181	1	143	.000	
2	.717 ^b	.515	.504	.83013	.011	1.578	2	141	.210	
3	.720 ^c	.518	.501	.83310	.003	.499	2	139	.608	1.855

a. Predictors: (Constant), Overall Job satisfaction mean

b. Predictors: (Constant), Overall Job satisfaction mean, Age: How old are you? Tenure: How long have you been working for this organization?

c. Predictors: (Constant), Overall Job satisfaction mean, Age: How old are you? Tenure: How long have you been working for this organization? Gender Dummy Coded, Marital Dummy-coded

d. Dependent Variable: *Affect_avg*

Test of H_01

The null hypothesis (H_01) states that there will not be a statistically significant explanatory relationship between overall job satisfaction and employee organizational commitment. To test this hypothesis, overall job satisfaction was regressed against OC, which was measured by its three dimensions: affective, continuance, and normative commitment. When $p < .05$, a statistically significant relationship between the IVs and the DV is evident, and the null hypothesis is not supported. Results of testing this hypothesis are stated as follows:

Job satisfaction vs. affective commitment. Results of Model 1 shown in Table 22 reveals a strong statistically significant and positive relationship between job satisfaction and the affective commitment dimension of organizational commitment ($R = .710, p = .000, p < .001$). The null statement that there is no statistically significant relationship between job satisfaction and affective commitment is not supported, and the alternative hypothesis is accepted.

Job satisfaction vs. continuance commitment. Similarly, in the second analysis, the same IVs were entered sequentially into the equation and regressed against continuance commitment (Table 23). Once again, three regression models were produced and recorded in the Model Summary table. The Model Summary (Table 23) shows the regression of the IVs against continuance commitment. In the first model (Model 1), overall job satisfaction was regressed against continuance commitment (DV). Model 2 shows the result when, in a second step, age and tenure were entered into the regression equation, along with the main IV, job satisfaction. Model 3 shows the results when, in a third step, gender and marital status were entered into the equation (Table 23).

Table 23. Model Summary: IVs vs. Continuance Commitment (Continuance_avg, DV)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.123 ^a	.015	.008	.99821	.015	2.208	1	143	.140	
2	.143 ^b	.021	.000	1.00256	.005	.381	2	141	.684	
3	.184 ^c	.034	-.001	1.00293	.013	.949	2	139	.390	2.098

a. Predictors: (Constant), Overall Job satisfaction mean

b. Predictors: (Constant), Overall Job satisfaction mean, Age: How old are you? Tenure: How long have you been working for this organization?

c. Predictors: (Constant), Overall Job satisfaction mean, Age: How old are you? Tenure: How long have you been working for this organization? Gender Dummy Coded, Marital Dummy-coded

d. Dependent Variable: Continuance_avg

Results of Model 1 shown in Table 23 revealed a weak positive relationship between job satisfaction and the continuance commitment dimension of organizational commitment ($R = .123$). When $p < .05$, the statistical significance of the relationship between the variables is evident, and the null hypothesis was not supported. In this case, for each of the models, $p > .05$, and the null hypothesis was supported. For example, the p value in Model 1 is $p = .140$, $p > .05$. Results of Model 2 and 3 showed an improvement in the model when age and tenure and gender and marital status were entered into the regression equation; however, the addition of these two variables did not affect the relationship between the main variable (job satisfaction) and the DV (continuance commitment) as $p > .05$, $p = .684$ (Model 2) and $p > .05$, $p = .390$ (Model 3).

Test of H₀₃: Job Satisfaction vs. Normative Commitment

In the third and final analysis in which the same IVs were regressed against normative commitment, once again, the IVs were entered sequentially into the equation in three steps or blocks, which produced three regression models in each of the Model Summary tables. In the

first model (Model 1), overall job satisfaction was regressed against normative commitment (DV). Model 2 shows the result when, in a second step, age and tenure were entered into the regression equation, along with the main IV, job satisfaction, and regressed against normative commitment. Model 3 showed the results when gender and marital status were entered into the equation in a third step and regressed against normative commitment (Table 22).

Table 24. *Model Summary: IVs vs. Normative Commitment (Normative_avg, DV)*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.320 ^a	.102	.096	.90838	.102	16.307	1	143	.000	
2	.356 ^b	.127	.108	.90214	.025	1.993	2	141	.140	
3	.370 ^c	.137	.106	.90357	.010	.777	2	139	.462	1.678

a. Predictors: (Constant), Overall Job satisfaction mean

b. Predictors: (Constant), Overall Job satisfaction mean, Age: How old are you? Tenure: How long have you been working for this organization?

c. Predictors: (Constant), Overall Job satisfaction mean, Age: How old are you? Tenure: How long have you been working for this organization? Gender Dummy Coded, Marital Dummy-coded

d. Dependent Variable: Normative_avg

There was a small but statistically significant correlation between job satisfaction and normative commitment ($R = .320$; $p = .000$, $p < .05$); the null hypothesis was not supported. Results of the analysis for H_{20} and H_{30} are reported in the following sections:

Test of H_{02}

This hypothesis stated that age and tenure would not have a statistically significant effect on the relationship between overall job satisfaction and organizational commitment (OC). To test

the hypotheses, overall job satisfaction was regressed against the three dimensions of OC, which are affective, continuance, and normative commitment.

Age and tenure vs. affective commitment. Results of Model 2 shown in Table 20 showed an improvement in the model when age and tenure were entered into the regression equation; however, the addition of these two variables did not affect the relationship between the main variable (job satisfaction) and the DV (affective commitment) as $p > .05$, $p = .210$. The null hypothesis was supported.

Age and tenure vs. continuance commitment. Results of Model 2 shown in Table 21 showed an improvement in the model when age and tenure were entered into the regression equation; however, the addition of these two variables did not affect the relationship between the main variable (job satisfaction) and the DV (continuance commitment) as $p > .05$, $p = .684$. The null hypothesis was supported.

Age and tenure vs. normative commitment. Results of Model 2 shown in Table 22 showed an improvement in the model when age and tenure were entered into the regression equation; however, the addition of these two variables did not affect the relationship between the main variable (job satisfaction) and the DV (normative commitment) as $p > .05$, $p = .140$. The null hypothesis was supported.

Test of H₀₃

This hypothesis stated that gender and marital status would not have a statistically significant effect on the relationship between overall job satisfaction and affective, continuance, and normative organizational commitment.

Gender and marital status vs. affective commitment. Results of Model 3 (Table 20) suggested that the addition of gender and marital status into the regression equation did not affect

the relationship between job satisfaction and affective commitment with statistical significance as $p > .05$, $p = .608$. The null hypothesis H_{30} was supported.

Gender and marital status vs. continuance commitment. Results of Model 3 (Table 21) suggested that the addition of gender and marital status into the regression equation did not moderate the relationship between job satisfaction and affective commitment with statistical significance as $p > .05$, $p = .390$. The null hypothesis H_{30} was supported.

Gender and marital status vs. normative commitment. Results of Model 3 (Table 22) showed the addition of gender and marital status into the regression equation did not moderate the relationship between job satisfaction and affective commitment with statistical significance as $p > .05$, $p = .462$. The null hypothesis H_{30} was supported.

Test of the Omnibus H_0 (Theory-testing)

The theory-testing omnibus null hypothesis stated that the Herzberg two-factor theory of job satisfaction will not explain a statistically significant relationship between overall job satisfaction, and employee organizational commitment when employees' personal characteristics of age, tenure, gender, and marital status moderated the relationship between overall satisfaction and affective, continuance, and normative organizational commitment for 145 employees in diverse organizations within the U.S.

Based on the Summary Model results in Table 22, Table 23, and Table 24, there was a statistically significant relationship between (a) job satisfaction and affective commitment ($p < .05$), and (b) job satisfaction and normative commitment ($p < .05$). There was not a statistically significant relationship between job satisfaction and continuance commitment ($p > .05$), nor did age and tenure or gender and marital status moderate the relationship between job satisfaction and each of the three DVs, affective, continuance, and normative organizational commitment.

Summary

Chapter 4 reflects the results of three separate regression analyses. Hierarchical multiple regressions analyses were run to investigate explanatory relationships between five IVs, which are job satisfaction, age, tenure, gender, and marital status, and employee organizational commitment as measured by affective commitment (DV), continuance commitment (DV), and normative commitment (DV). Six assumptions were checked to determine the suitability of the data to conduct a regression analysis. The six assumptions were related to linearity, independence of errors, homoscedasticity, multicollinearity, significant outliers/influential cases, and normality of distribution. None of the assumptions was violated. The psychometric properties of the instruments used in the study suggested that they were reliable and valid based on Cronbach alpha results of $\alpha > .60$. Interpretations of the study results are presented in Chapter 5.

CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

The objective of this study was to examine whether the moderating effect of employees' personal characteristics (e.g., age, tenure, gender, and marital status) moderated the relationship between employee's job satisfaction JS (IV) and employee's organizational commitment OC (DV). Employee organizational commitment is made up of three dimensions: affective commitment, continuance commitment, and normative commitment. This quantitative non-experimental research was conducted to test the Herzberg two-factor theory of employee job satisfaction for its ability to explain the relationship between job satisfaction, organizational commitment (as defined by its three dimensions), and whether employees' personal characteristics exert a moderating effect on the relationship between JS and OC for 145 participants at diverse organizations within the United States. The omnibus research question (RQ0) and the three sub-questions (RQ1, RQ2, and RQ3) that emerged from RQ0, and the main hypothesis and the three sub hypotheses were formed to answer the research questions.

Summary of the Results

Sequential or hierarchical multiple regressions procedures were applied to test the hypotheses and SPSS was used to analyze study data. First, the data were checked to determine its fit to the regression model. Accordingly, assumptions were checked, and none was violated. The multiple regressions analyses produced three summary models for each of the regressions of the IVs against affective commitment (AC), continuance commitment (CC), and normative

commitment (NC). In all, nine summary models were produced. For example, for Model 1, overall job satisfaction (IV) was regressed against each of the three DVs (AC, CC, NC). In Model 2, age and tenure (IVs) were added to the regression equation in a second step and regressed against the three DVs. Finally, in Model 3, which was the last sequential step of the analysis, gender, and marital status were added to the equation, and regressed against the DVs. Results of the regressions of the IVs against the DVs (AC, CC, NC) are as follows:

Affective Commitment (DV), Model 1 (RQ1, H_{01})

Results of Model 1 (Chapter 4, Table 22) reveals a strong statistically significant and positive relationship between job satisfaction (JS) and the affective commitment (AC) dimension of organizational commitment ($R = .710, p = .000, p < .001$). The null statement that there is no statistically significant relationship between JS and AC (H_{01}) was not supported, and the alternative hypothesis accepted. An assessment of results in Model 2 showed that *age* and *tenure* did not exert a statistically significant effect on the relationship between JS and AC ($p > .05$). Likewise, as shown in Model 3, marital status and tenure did not exert a statistically significant effect on the relationship between JS and AC. In these two cases, the null hypothesis of no statistically significant effect on the relationship between JS and AC ($H_{02}; H_{03}$) was supported. However, overall, the hypothesis of no statistically significant relationships between the IVs and the DV was partially supported since there was a statistically significant relationship between job satisfaction and affective commitment.

Continuance Commitment (DV), Model 1 (RQ1, H_{01})

The Model Summary (Chapter 4, Table 23) shows the regression of the IVs against continuance commitment (DV). Results of Model 1 revealed a weak positive relationship between job satisfaction (JS) and the continuance commitment (CC) dimension of organizational

commitment ($R = .123$). Nevertheless, the relationship between JS and CC was statistically nonsignificant ($p > .05$). Similarly, results in Model 2 and Model 3 showed no statistically significant effect of age and tenure (IV) or gender and marital status on the relationship between the JS and CC. The hypotheses that age and tenure (RQ2, H_{02}), and gender and marital status (RQ3, H_{03}) will not have a statistically significant effect on the relationship between overall job satisfaction and continuance were supported.

Normative Commitment (DV), Model 1 (RQ1, H_{01})

As shown in Model 1, Table 24 (Chapter 4), there was a small but statistically significant relationship between job satisfaction (JS) and normative commitment ($R = .320$; $p = .000$, $p < .05$). However, for Model 2 (RQ2, H_{02}) and Model 3 (RQ3, H_{03}), neither age and tenure nor gender and marital status exerted a statistically significant effect on the relationship between JS and normative commitment (NC) as $p > .05$. Therefore, on a dimensional level, the hypotheses that neither age and tenure nor gender and marital status exerted a statistically significant moderation on the relationship between JS and normative commitment were upheld. However, the hypothesis of no statistically significant relationship between JS and NC was not supported, and the alternative hypothesis was accepted. These results helped to explain the power of the Herzberg two-factor theory of job satisfaction to explain a problem that has produced mixed results in the literature, as follows:

Theory-testing Omnibus Results of RQ₀ and H_0

An assessment of the cumulative results provided the theory-testing answer to RQ₀. Indications were that, overall, the Herzberg two-factor theory of job satisfaction did not fully explain a statistically significant relationship between job satisfaction and the three dimensions of employee organizational commitment when employees' personal characteristics of age,

tenure, gender and marital status moderate the relationship between overall job satisfaction and affective, continuance, and normative organizational commitment for 145 employees in diverse organizations within the U.S. Therefore, the omnibus hypothesis was only partially supported.

Discussion of the Results

The results of the study showed that, in general, the Herzberg et al. (1959) two-factor theory of job satisfaction has the power to explain the relationships between job satisfaction (JS, IV) and employee organizational commitment (OC, DV). However, at a dimensional level, although the theory had the power to explain JS and affective commitment (DV) and JS and normative commitment (DV), the Herzberg two-factor theory of job satisfaction did not explain a relationship between JS and continuance commitment (CC). The review of the literature suggested that these results are supported in the literature and affirmed the long-confirmed evidence in the literature of the positive and statistically significant relationship between JS and OC largely. However, on a dimensional level, results suggested there was not a statistically significant relationship between JS and CC.

Given that CC is associated with the side bet theory that employees make cost-to-benefit decisions in determining whether to stay with the organization or leave it (Becker, 1960), this result is not surprising. It is reasonable to assume that by the time an employee is at the stage of weighing the cost-to-benefits of staying with the organization, an individual's commitment is exclusive to a person's well-being and not that of the organization. It is not surprising that organizations do not value CC.

The result of this study showed that the two-factor theory was wholly ineffective in explaining the effects of age, tenure, gender, and marital commitment on the relationship between JS and any of the three dimensions of organizational commitment. Mowday et al.

(1982) suggested that personal characteristics, job characteristics, work experiences, and structural characteristics are antecedents of affective commitment. In the Mahanta (2012) study (from which this study emerged), the findings were consistent with those from the Allen and J.P. Meyer's (1993) study, which reported a positive and significant correlation between age and OC; this was not borne out in the results of the study when personal characteristics were applied as moderator variables, as in no case did any personal characteristic moderate the relationship between JS and AC, CC, and NC. However, similar to this study, the Mahanta (2012) study revealed that gender and marital status did not affect OC. Therefore, this partial replication study only adds to the inconsistent results on the phenomena documented in the literature.

Nevertheless, the study provided some insight into why some researches show that personal characteristics exert a statistically significant effect on the relationship between JS and OC, while others do not; these were international studies conducted in developing countries and based on culturally disparate samples. It is possible that ethnic, cultural, and national differences may influence employee responses in these instances. The review of the literature revealed longstanding concerns about the proliferation of job satisfaction instruments and their use in social science inquiry, which could cause inconsistent results (Dugguh & Dennis., 2014; Langer et al., 2019). Indeed, the JS instruments varied in international studies and were also modified to reflect native or local cultural norms. It is possible that, accounting for cultural differences, the combination of the use of various instruments, and instrument modification may have been responsible for inconsistent results.

The 21st century is fraught with change, and that change is accelerating at a faster rate than in the past. The motivating factors that, in the past century, engaged employees' hearts and emotions in favor of supporting the goals of the organizations might not be relevant in the 21st

century (Dugguh & Dennis, 2014; Giancola, 2011); also, motivating factors differ across industries and even across cultures, further challenging organizations to avoid one-size-fits-all solutions.

Conclusions Based on the Results

Some longstanding understanding of the relationship between job satisfaction (JS) and organizational commitment (OC) was confirmed in this study. In particular, at a component level, the results of the study confirmed statistically significant relationships between JS and affective commitment (AC), as well as between JS and normative commitment (NC). However, the results of the study did not bring clarity to the field's understanding of whether or how personal characteristics affect the relationship between the IVs and the DVs. In fact, contrary to some of the evidence in the literature, none of the intervening IVs (i.e., age, tenure, gender, marital status) exerted a statistically significant effect on the relationship between JS and any of the three components of OC. Therefore, it was quite evident that the study did not extend the two-factor theory as hoped for, and the results could not be generalized beyond the sample used in this study. However, the study elicited important questions concerning why, in other studies, did results suggest statistical significance when personal characteristics affected the relationship between JS and OC. The questions that arose from the results of the study warrant further studies on the phenomenon.

Limitations

There were limitations to this study. For one, since Qualtrics LLC was hired to conduct the research, participants were limited to the members of the company's panel of volunteer survey takers, and the data were self-reported. Verification of the required demographical information that was vital to the study was not possible; this information pertained to participants' age, tenure with their organization, gender, and marital status.

Secondly, since data collection was online and self-reported, it was not possible to verify the truthfulness of participants' responses to the web-based questionnaires, or their employment status at the time of data collection. Also, a common problem identified with self-report data is that participants sometimes provide the responses that they think the researcher desires, which could bias results; in the literature, this is called "self-selection bias" (Mondal & Mondal, 2018; Reddy et al., 2006). There was no way to identify whether the responses were free of this type of bias.

Thirdly, the age boundaries imposed on participants (i.e., 18 – 65 years old) excluded employees below and over these age thresholds. In America, many individuals who are under the age of 18 enter the workforce on a fulltime basis and remain in the workforce beyond the age of 65 (SHRM, 2017). Therefore, data from these individuals were not taken into consideration. Finally, the objective quantitative methods employed in the study did not allow for a deeper understanding of the problem, which subjective methods might have provided.

As noted previously, a commercial data collection company, Qualtrics, LLC, was hired to draw the study sample from the population of interest in its nationwide panel of voluntary survey participants. Qualtrics, LLC applied random probability sampling techniques to draw the specifically described sample of participants from the company's panel of voluntary survey

takers. The selection of participants by random sampling allowed each member of the population to have a fair and equal probability of being accepted for inclusion in the study (Kuhn, 2012; Yeomans, 2017). Summaries of sample frame and demographic data provided a picture of the population from which the sample was drawn. It reflected that 72.4% are women, and 27.6% are male. Age frame consist of 42.1% = 18-33, 43.4% = 34-49, and 14.5% = 50-65. (Table 5). The U.S. Census Bureau reported as of the year of the last census, the adult male and female distribution in the country were males, 49.2%, and females, 50.8%; therefore, the data for this study are not normally distributed but rather skewed and may have influenced the results. Skewness in a sample could be a limitation of the study that limits the generalization of the results; however, multiple regressions are robust to a violation of normality of distribution (Ernst & Albers, 2017). Nevertheless, it is conceivable that females and males are impacted differently with overall job satisfaction and with varying degrees of organizational commitment. Therefore, to ensure the broader applicability of the results, it would be useful to further validate the results with a more representative group of participants. Nonetheless, the study provides interesting results, both supporting and challenging aspects of previous research.

This research study is a partial replication of a correlational study by Mahanta (2012). The objective of this study was to investigate whether employees' personal characteristics moderated the relationship between overall job satisfaction and employee organizational commitment. However, in the current labor force, there are a variety of categorizations of generations (Baby Boomer, generation X, and millennial) work together in one organization. Each generation possesses a distinctive mindset, characteristic, and unique ability; therefore, it might be challenging for organizations to develop a perfect work environment for a diverse generation (Gursoy, Chi, & Karadag, 2013). For example, Robbins, Judge, and Millett (2015)

noted that the millennial worker's job satisfaction and organizational commitment are influenced by such things as the nature of the job, management style, and advancement prospects. Buskirk-Cohen, Duncan, and Levicoff (2016) argued that Millennials' generations are different from X generation in terms of their proficiency with technological gadgets and online platforms. Furthermore, a review of the literature showed numerous features that impacting organizational commitment of millennial workforces such as promotion opportunities, fringe benefits, wages, management supervision, collegial relationship, and work environment (Saragih, Widodo, & Prasetyo, 2016, p. 49).

Since this study did not touch upon the differentiation within the categorizations of generations, notably, the Baby Boomer, generation X, and the millennials; future research should consider the potential effects of older generations and generation Y. to see how the different categorizations of generations affect the overall job satisfaction and the organizational commitment.

Implications for Practice

One significant implication for practice that emerged from the study is the confirmation that job satisfaction (JS) is positively and significantly related to affective commitment (AC) and normative commitment (NC), though not to continuance commitment. Unlike earlier centuries, 21st-century organizations are not characterized by stability (Hollister & Smith, 2014; H. Hur & Perry, 2016). Most organizations in the 21st century are operating in turbulent, change-infused environments and cannot guarantee stable employment throughout the employee's career. Globalization, outsourcing, demographic shifts and increased diversity, political, social, and cultural changes contribute to accelerating changes and workplace instability; therefore, many employers are making operating decisions that often are not in employees' best interests (Lowe,

2018; Reinardy, 2012) but favor the interests of shareholders. As a result, employees are experiencing high levels of stress because of, for example, feelings of job insecurity (Lowe, 2018; Reinardy, 2012). Since organizations value AC and NC, and since the relationship between JS and AC has been established in the literature for several decades, it would be good for organizational leaders to fully understand the steps they should take to develop affective and normative commitment in their organizations. Next to affective commitment, normative commitment is most valued by organizations. Since this type of commitment is rooted in employees' sense of obligation to stay with the firm because of altruistic behaviors by the organization toward the employee, organizations might consider examining extrinsic factors that could influence these favorable intrinsic responses.

Recommendations for Further Research

This study confirmed the positive relationship between job satisfaction (JS) and overall commitment (OC) and between JS and affective and normative commitment (AC, NC) in particular. However, results did not clarify the effect of the intervening IVs (age, tenure, gender, marital status) on the relationship between JS and OC, or on JS and the three dimensions of OC. Nevertheless, it is important to study the effects of personal characteristics on key organizational outcomes as many characteristics directly affect an employee's commitment to the organization (J.P. Meyer et al., 2002; J.P. Meyer et al., 2012; Yousef, 2017).

Given the evidence in the literature that a plethora of variables related to the business and workplace environments affect employees' organizational commitment, new areas of study might be warranted. For example, since the problem has been studied mostly from different international and cultural perspectives such as China (Huang & Gamble, 2015; Wang et al., 2015), India (Mahanta, 2012), Africa (Mensah & Adjei, 2015), and Turkey (Çoğaltay, 2015;

Tekingündüz, Top, Tengilimoğlu, & Karabulut, 2017), the lack of consensus in the results from these research efforts suggests a possibility that cultural and national differences might have affected the outcomes of the studies. Citing Jehn et al. (1999), Chuapetcharasopon et al. (2018) reiterated the challenge to organizations presented by cultural diversity. Therefore, to obtain a more granular understanding of whether differences in personal characteristics affect OC in America since the U.S. is so ethnically diverse, the study could be replicated, and the problem examined from the perspective of ethnicity as an IV, besides other personal characteristics as intervening variables. It is possible that the results of such a study might explain the dissonance in the literature concerning the effects of employees' personal characteristics on the relationship between JS and OC.

Also, the literature review suggested significant relationships between organizational justice, job satisfaction, and commitment (Bayraktar, 2019; Lambert & Paoline, 2008; López-Cabarcos et al., 2015; Sia & Tan, 2016). In the change-infused work environments of the 21st century, new research might be conducted to determine the role that employees' sense of organizational justice exerts on the relationship between JS and OC among employees of different ages, ethnic groups, tenure, gender, and marital status. The direct or intervening effects of political, social, and cultural dynamics on commitment might be examined from an organizational justice perspective, and different statistical methods employed. Finally, since this study was limited to a quantitative examination of the problem, other non-quantitative approaches might help to expand knowledge on the topic of OC in the 21st century. For example, qualitative methods in which direct observation or interaction with employees in the groups mentioned above are carried out might help to expand the field's understanding of the lived experiences of employees' organizational commitment in today's workplace environments.

Conclusion

Personal characteristics should be studied relative to organizational outcomes (Adams et al., 2014; Echchakoui & Naji, 2013; Hollister & Smith, 2014; Mahanta, 2012; Mowday et al., 1982). Existing studies on the effect that employees' personal characteristics exerted on the relationship between JS and OC were conducted in many countries, and results were inconsistent. Therefore, there is a gap in this area of the JS and OC literature. The goal of this research was to address this gap by adding to the scholarly literature on the subject and enlarging the field's understanding of how employees' personal characteristics moderated the relationship between JS (IV) and OC (DV). Thus, the power of the (Herzberg et al. (1959) two-factor theory of employee job satisfaction was tested for its ability to explain the relationship between JS and OC when the relationship was moderated by four more IVs (age, tenure, gender, and marital status). In particular, the relationships between JS and the three components of OC (affective commitment-DV; continuance commitment- DV, and normative commitment- DV) were examined separately through three regression analyses in which the IVs were entered sequentially into the regression equation and regressed against the DVs.

Evidence that JS is significantly related to OC was confirmed; however, in no instance did the intervening IVs (age, tenure, gender, and marital status) exert a statistically significant effect on the relationship between JS and the three components of OC. The study only added to the dissonance to the literature on the topic. Nevertheless, the research surfaced questions, which warrant further investigations; for example, were the inconsistent results on the phenomenon because of the influence of nationality, culture, or ethnicity in the samples? Based on this and other questions, further studies on the topic are recommended.

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