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Is Generational Diversity Good for Engagement? Generational Diversity's Moderation of the Relationship Between An Employee's Perception of Leadership Effectiveness and Their Own Engagement

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IS GENERATIONAL DIVERSITY GOOD FOR ENGAGEMENT? GENERATIONAL DIVERSITY'S MODERATION OF THE RELATIONSHIP BETWEEN AN EMPLOYEE'S PERCEPTION OF LEADERSHIP EFFECTIVENESS AND THEIR OWN ENGAGEMENT

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Matthew J. Baumann

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To: Dean William Hardin
College of Business

This dissertation, written by Matthew J. Baumann, and entitled, Is Generational Diversity Good for Engagement? Generational Diversity's Moderation of the Relationship Between an Employee's Perception of Leadership Effectiveness and Their Own Engagement, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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The dissertation of Matthew J. Baumann is approved.

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Florida International University, 2022

DEDICATION

I dedicate this work to my amazing family, who have always supported the wild adventures of my life. To my wife, Ashley, who is my rock and partner. To my mother and father, Art and Letta, who have provided the foundation from which I have grown. To my lovely children, with whom I hope to share in the opportunities we have been blessed with.

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ABSTRACT OF THE DISSERTATION

IS GENERATIONAL DIVERSITY GOOD FOR ENGAGEMENT?

GENERATIONAL DIVERSITY'S MODERATION OF THE RELATIONSHIP BETWEEN AN EMPLOYEE'S PERCEPTION OF LEADERSHIP EFFECTIVENESS AND THEIR OWN ENGAGEMENT

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Professor George Marakas, Major Professor

This dissertation manuscript is rooted in the notion that an employee's perception of their immediate supervisor's leadership effectiveness, and the associated social exchange, are significant contributors to their engagement. Engagement, when consistently elevated, results in positive organizational outcomes. While perceived leadership effectiveness and engagement present a relatively intuitive connection, other less clearly defined factors might moderate this relationship. These factors include a myriad of supervisor and employee traits and behaviors, many of which represent levels and dimensions of diversity. Diversity, when misunderstood and subsequently over or underestimated, can result in unforeseen impact to organizational outcomes. One critical diversity construct is age diversity, also known as generational diversity, or the difference in generational belonging, identification and generational manifestations, between an employee and their supervisor. Generational diversity might challenge the assumption that diversity has a generally positive impact on the workplace, namely because of the

severity in differences found between the values of working generations (James et al., 2011). This research is concerned with answering the following questions: How does generational diversity in the employee-supervisor hierarchy, affect the relationship between positive perceptions of leader effectiveness and employee engagement? Of particular interest, is whether generational diversity moderates this relationship? In an effort to avoid missing a critical engagement moderator, this study also explores employee personality as a moderator to this relationship.

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LIST OF ACRONYMS

NAME	ACRONYM
Average Variance Expected	AVE
Behavioral Engagement	BE
Campbell's Leadership Index	CLI
Cognitive Engagement	CE
Composite Reliability	CR
Confirmatory Factor Analysis	CFA
Earnings Per Share	EPS
Emotional Engagement	EE
Employee Engagement	ENG
Employee Engagement Scale	EES
Employee Personality	EP
Employee Personality: Agreeableness	EPa
Employee Personality: Conscientiousness	EPc
Employee Personality: Extraversion	EPe
Employee Personality: Neuroticism	EPn
Employee Personality: Openness to Experience	EPo
Exploratory Factor Analysis	EFA

Generational Diversity	GD
Generational Diversity: Degrees of Separation	GDDegSep
Generational Diversity: Direction	GDDir
Organizational Citizenship Behavior	OCB
Partial Least Squares	PLS
Perceived Positive Leadership Effectiveness	PPLE
Social Exchange Theory	SET
Structural Equation Modeling	SEM

Chapter 1: Introduction

Background and Problem

With a rapidly evolving five-generation workforce, the leaders who matter to engagement often diverge generationally from those they lead. This trend and corresponding dynamic is a topic of interest to Human Resource Departments (HRDs) and leaders alike, but there is limited research around how generational diversity impacts the engagement paradigm. Basic algebra tells us that an employee working 40 out of 168 hours in a week, will spend approximately 24% of their adult lives at work. This same employee will expend varying levels of cognitive, emotional and behavioral resources on their work performance (Kahn, 1990; Shuck et al., 2017). The state within which these "preferred self" resources are spent on work is often referred to as "self-in-role," or the engagement of the employee (Bakker et al., 2011; Kahn, 1990). Gallup (2017, p.37), one of industry's foremost employee engagement experts, found that in 2012, less than one-third of American workers were engaged, compared with 70% who were either not engaged or actively disengaged. Gallup estimated the cost of disengaged employees at between $450-550 billion annually (Gallup Inc., 2017, p.37). On the contrary, those organizations who were able to engage their workforce experienced as much as 147% higher earnings per share (EPS) than their disengaged competitors. Beyond benefits of increased task performance, organizational citizenship behavior (OCB) and decreased turnover (Li & Tan, 2013, p.420-421; Soane et al., 2012), Harter et al. (2002, p.269-274) confirmed that regardless of industry, there is a positive correlation between engagement and business outcomes of customer satisfaction, productivity, profit, employee retention and employee safety.

This study is rooted in the notion that an employee's perception of their immediate supervisor's leadership effectiveness is a significant contributor to their engagement. Engagement, when consistently elevated, generally results in positive organizational outcomes. While perceived leadership effectiveness and engagement present a relatively intuitive connection, other less clearly defined factors might moderate this relationship. These factors include a myriad of supervisor traits and behaviors, many of which result in levels and dimensions of diversity. Diversity, when misunderstood or improperly managed, can result in potential negative impact to organizational outcomes. One such critical diversity construct is age diversity, also known as generational diversity, or the difference in generational belonging and identification between members of the workforce. Generational diversity might challenge the assumption that diversity has a positive impact on the workplace, namely because of the severity of differences found between working generations (James et al., 2011). The impact of generational diversity on engagement is under-represented in engagement research, and without a comprehensive understanding of where generational diversity fits into the engagement discussion, practitioners are at risk of sub-optimal work relationships, human resource practices and associated outcomes.

This research seeks to pull the string on a potentially moderating role of generational diversity in the relationship between an employee's perception of leadership effectiveness and their own engagement. Furthermore, this study evaluates the presence, direction and severity of generational diversity, as having the potential for moderating a supervisor's impact on engagement. In evaluating moderation, this research should build

further, and potentially unique support for the relationship between someone's supervisor and the extent to which that someone is engaged.

In seeking to better understand the relationship between perceived positive leadership effectiveness and engagement while focusing on generational diversity, the psychological construct of personality surfaced as another potential source of moderation in the relationship between perceived leadership effectiveness and engagement. An employee's personality affects how the workplace, fellow employees and opportunities are perceived. Because this research is not intended to focus on personality as the centrally explored construct, the researcher lean on widely accepted views of personality from psychological trait theory (Allport, 1961). Section II will focus more on this theory, but it is important to highlight the five factors which have arisen out of the last 50 years of research. They are: Extraversion, agreeableness, openness to experience, conscientiousness and neuroticism (Digman, 1990; Tupes & Christal, 1961). At first glance, once could see how various combinations of these factors might moderate differently the relationship between perceived leadership effectiveness and engagement.

Now that we have touched the surface of generational diversity and have highlighted leadership effectiveness, engagement, generational diversity and personality as constructs of interest to this research, let's look at some of the theories which support a relationship between these constructs. There are a wide range of theories supporting a researcher's understanding of the engagement construct, beginning with Maslow's Hierarchy of Needs, where personal engagement was identified as having the potential to influence all but physiological needs (Maslow, 1954). Social Exchange Theory (SET), parlayed the understanding of an individual's needs, into an exchange of value with a

routine evaluation of cost and benefit incorporated into every relationship (George C. Homans, 1958). Kahn's seminal engagement research, suggested three psychological conditions of meaningfulness, safety and availability, must be present within a role, in order to commit to enter an engaged state (Kahn, 1990, p.703). Kahn (1990) also defined employee engagement as the level of which one's physical, cognitive or emotional "self," is applied to, or invested into one's work role. This definition of employee engagement suggests variability in "self," which presents the potential for engagement-driven optimal or sub-optimal work performance. Alan Saks (2006), acknowledging the aforementioned antecedents to, and definition of engagement, took SET one step further by explaining an employee's frequent evaluation of the employee-employer relationship. Saks proposed an employee's perceived lack of value from the organization would result in decreased investment of "self," into work, or a dis-engaged state (2006).

With the importance of employee engagement to organizations in sight, we hone in on Kahn's (1990) three psychological conditions necessary to creating a work role that provides a focus for engagement: meaningfulness, safety and availability. These three conditions of engagement suggest value in investigating the link between relationship between employee and leader, or supervisor (Li & Tan, 2013; Roberts & David, 2017). If there is mistrust, or misaligned values, goals and attitudes within this relationship, engagement would seem to be more difficult to achieve (Soane et al., 2012). Jiang & Men (2017) point to leader authenticity and it's four key drivers: self-awareness, relational transparency, balance in processing information and an internalized moral perspective. According to Jiang and Men (2017), leader authenticity directly impacts work-life

enrichment and transparent communication, each of which increase employee engagement.

While it is simple to tie engagement to the superior-subordinate relationship, there is little empirical research associating engagement by generational combination in hierarchical work relationships. However, one may infer the differences between generations as a potential contributor to a lack of engagement in the United States (US). Of the five generations currently operating in our workforce (Traditionalists, Baby Boomers, Gen X, Gen Y, Gen Z), we observe significantly different value systems, and in turn, leadership approaches (Eletter, 2017; Schullery, 2013). For example, common descriptors of the Traditionalist Generation are "disciplined," and "loyal," biased to hierarchical structure and motivated by money and position (Wiedmer, 2015, p.52). In stark contrast, pervasive descriptors of the workforce's youngest Generation Z, is as "digital natives," whose technological savvy renders them more able to work outside of hierarchical structure with access to a wealth of technologically enabled information (Wiedmer, 2015, p.53). Regardless of which generational combination is in question, misalignment between superior and subordinate may be magnified by generational differences, can cause degradation to subordinate engagement, and therefore, presents risk to individual performance, organizational citizenship behavior (OCB) and turnover. This dynamic and risk must be studied to assess its significance in engagement discussions (Amayah & Gedro, 2014, p. 40-46).

1.2 Research Questions

This research is concerned with answering the following questions: "How does generational diversity in the employee-supervisor hierarchy, affect the relationship

between positive perceptions of leader effectiveness and employee engagement?," "Does generational diversity moderate the relationship between perceived leader effectiveness and engagement?," and "Does employee personality moderate the relationship between perceived leader effectiveness and engagement?."

Chapter 2: Review of the Literature

2.1 Introduction to the Literature Review

This study applies three overarching theories in better understanding generational diversity's relationship to employee engagement, perceived leadership effectiveness, personality's involvement and resulting organizational outcomes; Social Exchange Theory (Homans, 1958), Generational Cohort Theory (Eletter et al., 2017) and Psychological Trait Theory (Allport, 1961). In the application of these theories, the researcher draws on three correlated bodies of literature; employee engagement, generational diversity and personality in the workplace. The first is the overwhelming focus of this study and will be explored in depth through our review of the most relevant literature.

2.2 Engagement Definitions and Theoretical Perspectives in Literature

With roots in applied psychology and social science, researchers and practitioners spend significant resources defining, re-defining and measuring engagement. At least ten reputable instruments have demonstrated reliability and validity in measuring (Shrotryia & Dhanda, 2019) the engagement construct, some viewing engagement as a state and others as a set of behaviors (Soane et al., 2012, p.532). Here, we will review the various definitions of engagement and underlying theories, the instruments developed to measure the latent engagement construct, and review in depth, Shuck et al.'s (2017) Employee

Engagement Scale (EES), as it will provide the foundation for this study. Provided by Shuck et al. (2017) but modified to include additional scales of interest, Table 1 provides a summary of the most pervasive engagement constructs, their originating source, definition and any uniquely identified focal point.

Table 1. Overview of Engagement-Like Constructs, Definitions, Focal Points (Shuck et al., 2017) Modified for Additional Contributions

Construct	Originating Source	Definition	Distinguishing Unique Focal Point
Engagement	(Harter et al., 2002)	The individual's involvement and satisfaction with as well as enthusiasm for work	Focused on the business-unit level, with consideration for employee satisfaction and engagement as separate constructs
Work Engagement	(Schaufeli et al., 2002), (Maslach et al., 2001)	Positive, fulfilling, work-related state of mind characterized by vigor, dedication, and Absorption; or A persistent, positive affective-motivational state of fulfillment in employees that is characterized by vigor, dedication, and absorption	Work activity and work itself
Organizational Engagement	(Saks, 2006)	Extent to which an individual is psychologically present in a particular organizational role	Organizational identification and presence

Job Engagement	(Rich et al., 2010)	Multidimensional motivational concept reflecting the simultaneous investment of an individual's physical, cognitive, and emotional energy in active, full work performance	Job activity and job performance
Social/ Intellectual Engagement	(Soane et al., 2012)	The extent to which one is intellectually absorbed in work, experiences a state of positive affect relating to one's work role, and socially connected to with the working environment and shares common values with colleagues	Work activity and alignment with colleagues
Employee Engagement	(Shuck et al., 2014)	Active, work-related positive psychological state operationalized by the intensity and direction of cognitive, emotional, and behavioral energy	Active role and full spectrum experience of working
Cognitive Engagement	(Shuck et al., 2017)	Intensity of mental energy expressed toward positive organizational outcome	A sub-dimension of engagement tied to Kahn's (1990) research
Emotional Engagement	(Shuck et al., 2017)	Intensity and willingness to invest emotionality toward positive organizational outcome	A sub-dimension of engagement tied to Kahn's (1990) research

Behavioral Engagement	(Shuck et al., 2017)	Psychological state of intention to behave in a manner that positively affects performance and/or positive organizational outcome	A sub-dimension of engagement tied to Kahn's (1990) research

While Table 1 is not all inclusive, it provides context from some of the foremost research in the engagement field of study, including Wilmar Schaufeli, Bruce Louis Rich, Alan Saks and Brad Shuck. From this introductory point, we will now explore the theoretical foundations of these constructs and definitions, with a focus on the forefather of engagement literature, William Kahn.

William Kahn (1990), in his grounded seminal work on the psychological conditions of engagement, observed variation in the degree to which people occupy their roles, and in turn, use their cognitive, emotional and behavioral resources in the roles they perform. Kahn referred to this giving or withholding of one's self as, "self-in-role," often referred to as Engagement Theory (Kahn, 1990, p. 694). This theoretical view was not new in 1990, but rather focused on the state of organizational members as they pursue their hierarchy of needs (Kahn, 1990).

Abraham Maslow, was an American psychologist who is well known for a motivational theory surrounding a model of five categories of human need, which must be satisfied in a basic-first sequence, in order to progress to more complex human need (Maslow, 1954). This theory has become known as, "Maslow's Hierarchy of Needs," and is fundamental to the study of workplace relationships and dynamics, such as engagement (Maslow, 1954). Of the five needs found within Maslow's Hierarchy, personal engagement, as defined by Kahn, has the potential to influence all but physiological

needs (Maslow, 1954; Kahn, 1990). Kahn, summarized this exchange by further defining personal engagement as, “the simultaneous employment and expression of a person’s preferred self in task behaviors that promote connections to work and to others, personal presence and active, full role performances” (Kahn, 1990, p.700). Kahn then further explored the psychological conditions that must be present within a role, in order to commit to enter an engaged state. These conditions are meaningfulness, safety and availability (Kahn, 1990). Meaningfulness is the feeling of receiving a positive return from the investment of one’s self (Kahn, 1990). Safety is the perception of being able to demonstrate one’s self, without fear of degradation to image, status or career (Kahn, 1990). Availability is, “the sense of possessing the physical, emotional and psychological resources necessary for investing self in role performance” (Kahn, 1990, p.705).

A second approach to defining engagement, largely attributed to Masalch and Schaufeli, supposed engagement was a continuous, positive and motivating state of fulfillment in employees, which is often branded by vigor, dedication, and absorption (Maslach et al., 2001; Schaufeli et al., 2002). In their defining engagement using positive states, rather than negative, this approach leveraged previous research on job burnout to establish the positive antithesis of burnout as engagement.

Harter et al. (2002), defined engagement as an employee’s involvement in, satisfaction with, and enthusiasm for work. Although not significantly different from Kahn’s definition of engagement, Harter et al. (2002) focused on the business-unit level, with consideration for employee satisfaction and engagement as separate constructs. The most significant contribution to this body of knowledge came from confirming the positive correlation between engagement, satisfaction and business outcomes of customer

satisfaction, productivity, profit, employee retention and employee safety (Harter et al., 2002, p.269-274). Of additional importance was the confirmation that the aforementioned positive correlations were not industry specific, but rather generalizable across all organizations (Harter et al., 2002, p.269-274).

Saks (2006), summarized engagement as a construct that consists of cognitive, emotional, and behavioral sub-dimensions or components, which are often associated with individual role performance. With significant common ground between Kahn and Saks, this contribution to the body of knowledge came with the proposition that there was a difference between job and organization engagement, and that "perceived organizational support predicts both job and organization engagement; job characteristics predicts job engagement; and procedural justice predicts organization engagement(Saks, 2006, p.600)." Saks (2006) also found that, "engagement mediated the relationships between the antecedents and job satisfaction, organizational commitment, intentions to quit, and organizational citizenship behavior" (p. 604).

2.3 Approaches to Measuring Engagement

Engagement centered survey instruments vary widely, having been derived by a combination of practitioners and academicians. Although this study leverages Shuck et al.'s (2017) Employee Engagement Scale (EES) primarily, the following review will provide an overview and findings from five additional employee engagement instruments. These instruments are: The Gallup Workplace Audit (GWA) (Harter et al., 2002), The Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002), the Job and Organizational Engagement Scale (Saks, 2006), the Employee Engagement Survey (James et al., 2011) and the Intellectual, Social and Affective (ISA) Engagement Scale

(Soane et al., 2012). Table 2, provides a summary of each of these survey instruments, along with a description, the variables associated, the sample population, reliability (Cronbach Alpha) and findings. This table's contents were derived from literature review conducted by Shrotryia and Dhanda (2019, p.30-34), which contained a lengthier summary table.

Table 2. Employee Engagement Instruments (Shrotryia & Dhanda, 2019, p.30-34) Modified

Instrument and Originating Source	Variables	Sample	Reliability	Findings
The Gallup Workplace Audit (GWA) Harter et al. (2002)	Personal job satisfaction and other affective constructs.	Gallup database of 7,939 business units (not individual employees) in 36 companies.	Cronbach's α (overall instrument) at the business-unit level of analysis = 0.91	Both overall satisfaction and engagement were correlated to various outcomes like customer satisfaction—loyalty, profitability, productivity, employee turnover, and safety outcomes and showed generalizability across companies.
The Utrecht Work Engagement Scale (U WES) Schaufeli et al. (2002)	Vigor, dedication and absorption.	Sample 1: 314 undergrad students of the University of Castellon, Spain. Sample 2: 619	Cronbach's α for the three dimensions: Vigor: 0.78 (students) and 0.79 (employees) Dedication: 0.84	All burnout and engagement scales were significantly and negatively related.

		employees from 12 Spanish private and public companies.	(students) and 0.89 (employees) Absorption: 0.73 (students) and 0.72 (employees)	
Job and Organizational Engagement Scale Saks (2006)	Job characteristics, Perceived Organizational Support (POS), Perceived Supervisor Support (PSS), rewards and recognition and procedural and distributive justice.	102 employees working in a variety of jobs and organizations in Canada.	Cronbach's α (job engagement scale) = 0.82 Cronbach's α (organization engagement scale) = 0.90	There is a meaningful difference between job and organization engagements. Employee engagement partially mediated the relationship between its antecedents and consequences.
Job Engagement Measure Rich et al. (2010)	Value congruence, perceived organizational support, and core self-evaluations.	245 full-time US firefighters and their supervisors employed by four municipalities.	Cronbach's α (overall job engagement scale) = 0.95	Higher levels of value congruence, perceived organizational support, and core self-evaluations are associated with higher levels of employee engagement.
Employee Engagement Survey James, et al. (2011)	Job quality for impact on employee engagement among older and younger workers in a large retail	6,047 Citi Sales employees in 352 stores in three regions of the U S.	Cronbach's α (overall scale) = 0.91	Engagement was significantly related to other constructs like supervisor support and recognition,

	setting.			schedule satisfaction, career development and promotion, and job clarity.
Intellectual, Social, Affective Engagement Scale (ISA Engagement Scale) Soane et al. (2012)	Intellectual engagement: Affective engagement: Social engagement:	540 employees of a U K-based manufacturing company (Study 1) 759 U K-based employees working for a retail organization (Study 2) participated	Cronbach's alpha = 0.91 (overall construct)	The three facets of engagement (intellectual, affective, and social) were measured by developing three scales. Results confirmed the associations between engagement and three organizational outcomes of task performance, O CB, and turnover intentions.
The Employee Engagement Scale Shuck et al. (2017)	Cognitive engagement Emotional engagement Behavioral engagement	Study 1 – Sample of 283 workers in organizations of regional professional affiliation. Study 2 – Sample of 241 workers working in health care field. Study 3 – Sample of	Cronbach's Alpha Cognitive (0.94), behavioral (0.91) and emotional (0.88) engagement	Employee engagement is a higher order factor measured by cognitive, emotional and behavioral engagement. Employee engagement is positively related to job satisfaction,

		1,067 employees who worked in financial services. Study 4 – Sample of 490 employees from education field.		discretionary effort and well-being while negatively related to intention to turnover.

The GWA, or G12, was developed from the research of Harter, Schmidt and Hayes (Harter et al., 2002) and tested with a Gallup database of 36 companies and 7,939 business units. Leveraging a definition of engagement centered on involvement and satisfaction with work, the GWA reliably correlated employee satisfaction and engagement with positive business outcomes. As the first positive psychology based, practitioner's instrument, the GWA provides significant applied value to this study and the significance of engagement to organizational performance. Limitations to this study include the limited clarity surrounding the factors that make up the GWA, lending to a more global measurement of engagement without the opportunity for segregating factors (Harter et al., 2002).

The UWES, was developed by Schaufeli et al. (2002), combining previous perspective from the Maslach Burnout Inventory-General Survey (MBI-GS), which took a positive-psychology approach to understanding engagement. The UWES focused on three dimensions of engagement: vigor, dedication and absorption. Initially tested with both students and employees in Spain, the UWES was significantly considered for use in this research (Schaufeli et al., 2002, 72-76). Limitations to the UWES include difficulty

tying the three primary factors of engagement back to seminal research conducted by Kahn (Kahn, 1990), due to the burnout foundation of Schaufeli's perspective.

The ISA Engagement Scale was developed by Soane et al. (2012), who built upon Kahn's (1990) theory of engagement or "self-in-role." Soane et al. highlights three dimensions of engagement: Intellectual engagement, Social Engagement and Affective Engagement (Soane et al., 2012, p. 532). With these three dimensions in sight, Soane et al. defined engagement as, the level to which one is intellectually engrossed in work, experiences a state of positive affect from work, and is socially connected with their work, including sharing common values with colleagues (Soane et al., 2012).

2.4 James et al.'s Employee Engagement Survey

Because the focus of this research is on the relationship between generational diversity and employee engagement, James et al.'s (2011) research on predicting employee engagement in an age-diverse retail workforce, begins to glance through the lens this research intends to intently peer through. This is because James' was focused on both measuring engagement as well as understanding the effects of age diversity on engagement. James et al. (2011) segregated participants into five age cohorts, without regard for generational belonging, but rather with focus on where these employees were within their careers. These cohorts were: 1) Emerging adults, ages 24 and younger, 2) Settling-In Adults, ages 25-39, 3) Prime-Working Years, ages 40-54, 4) approaching Retirement, ages 55-56, and 5) retirement eligible, ages 66 and older (James et al., 2011). James and team focused on several dimensions of job quality within their scale. Of these dimensions, supervisor support and perceptions of fairness relate to a construct later to be reviewed in depth, Positive Perceptions of Leadership Effectiveness (PPLE). The

findings of this study are foundational to where this dissertation will head, as James et al. found significant differences in the engagement levels among various employee age groups. At the highest level, older workers were more engaged than their younger colleagues, but both groups of workers were similar in the job conditions driving their engagement.

James et al. (2011), concluded this study by suggesting future opportunities for research which look at fine-grained differences between and within age cohorts, to further understand the effects of age, period and cohort on employee engagement. This call to action provides the proposed dissertation with the grounds to evaluate such cohort effects on employee engagement, while furthering the application of Social Exchange theory in the engagement discussion.

2.5 Shuck et al.'s Employee Engagement Scale (EES)

Each of the aforementioned engagement scales and instruments offers a unique perspective on measuring engagement and associated constructs with high reliability (Cronbach Alpha from .72 to .95). However, engagement scale considerations most important to this research study include the following: 1) alignment with Kahn's psychological conditions of engagement, 2) inclusion of Saks (2006) three engagement dimensions and 3) significant evidence of a correlation between the instrument's engagement construct and positive organizational outcomes. Each of the six scales reviewed were aligned with Kahn's 1990 work, but there was significant variance in the engagement constructs utilized and the level to which incremental validity was demonstrated following exploratory factor analysis (EFA).

Shuck et al.'s (2017) engagement approach was summarized as "work-related, positive psychological state operationalized by the intensity and direction of cognitive, emotional and behavioral energy," (p.955). The EES is not only rooted in Kahn's psychological conditions, but it measures engagement as a higher order construct of three engagement sub-scales, which Saks' (2006) calls out as cognitive, emotional, and behavioral engagement dimensions. This three-dimensional approach was in complete alignment with the researcher's professional understanding of engagement, driving EES selection for principle evaluation of generational diversity and engagement.

In building a better understanding of the sub-dimensions of engagement, Shuck et al. (2017), defined cognitive engagement as the intensification "of mental energy expressed toward positive organizational outcomes," (p.955). An employee who is engaged cognitively, demonstrates increased focus, attention and concentration on work. Emotional engagement was defined as the intensification and "willingness to invest emotionality toward positive organizational outcomes," (Shuck et al., 2017, p.955). Emotionally engaged employees are seen as emotionally connected with manifested investment of personal resources, such as believing in, or feeling a sense of personal meaning toward, and being emotionally connected, parts of the work experience (Shuck et al., 2017). Behavioral engagement was called out as the "psychological state of intention to behave in a manner that positively affects performance and/ or positive organizational outcomes," (Shuck et al., 2017, p.955).

This notion of behavioral engagement receives additional insight through the work of Macey and Schneider (2008), who explored the behavioral dimension of engagement, uncovering a notion of reserved discretionary effort, which one may deploy

when especially engaged. Inseparable from behavioral engagement, and possibly the result of a behaviorally engaged employee, is the concept of Organizational Citizenship Behavior (OCB). This term represents the body of behavioral action taken beyond the formal requirements of one's role. While not directly rewarded, this extra-role performance is commonly described as, "going the extra mile." In short, behavioral engagement could logically be seen as an antecedent of OCB.

Shuck et al. (2017) conducted a series of four studies, beginning with exploration of factor structure and reliability of the EES, progressing through providing evidence of convergent and nomological validity, and culminating with confirmation of incremental validity through the demonstration of the direct effect of engagement on decreased turnover intentions, increased job satisfaction and increased work performance. In completion of these studies, Shuck et al. (2017) demonstrated evidence of predictive incremental validity, with relation to job satisfaction and intention to turnover (Shuck et al., 2017, p.971).

This research will assess generational diversity's impact on observed variation in the degree to which people occupy their roles, and in turn, use their cognitive, emotional and behavioral resources in the roles they perform (Kahn, 1990).

2.6 Engagement Outcomes and Consequences

As described in the aforementioned summary of research using prevalent engagement scales, engagement is positively associated to OCB and work performance, while negatively associated with turnover intentions (Soane et al., 2012). Saks (2006) demonstrated similar findings, but saw engagement as having a mediating effect between the antecedents and job satisfaction, organizational commitment, turnover intentions and

OCB. Harter et al. (2002, p.269-274), among others (Akingbola & van den Berg, 2019; Al-Tit & Hunitie, 2015; Christian et al., 2011), confirmed that regardless of industry, there is a positive correlation between engagement and business outcomes of customer satisfaction, productivity, profit, employee retention (Tullar et al., 2016) and employee safety. Industry analysis confirms Harter et al.'s claim of association between engagement and financial outcomes while conversely inferring the cost of a dis-engaged workforce (Gallup, 2017). Additional peripheral studies focused on the role of supervisors in enabling Kahn's psychological needs, thus confirming both mediation of supervisory roles as well as confirmation of association between engagement and job performance (Alex Ning Li & Hwee Hoon Tan, 2013). In Figure 1, Robinson et al. (2004) provides an example of some of the behaviors they found to be associated with an engaged employee.

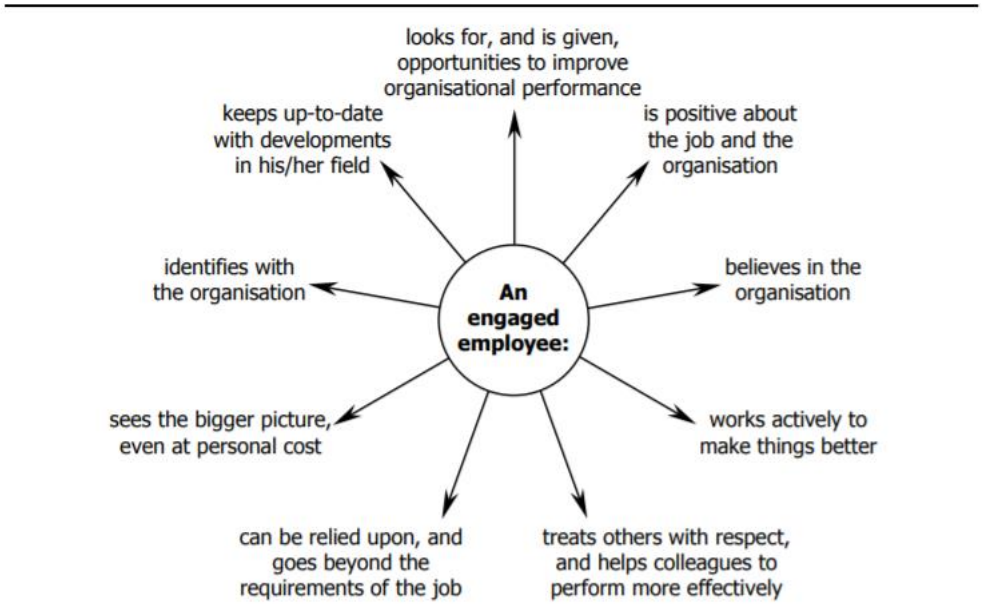

Figure 1. Characteristics of an Engaged Employee (Robinson et al., 2004)

2.7 Social Exchange Theory

Social Exchange Theory explains much of what we understand about the role of the supervisor to employee engagement. From 1958 to 1976, George Homans, John Thibaut, Harold Kelley, Peter Blau and Richard Emerson contributed to the development of Social Exchange Theory (SET). Much of the surrounding research sought to understand social interactions and the motivations and guiding principles behind such interactions. The result of their research is an understanding of the social and economic nature of human relationships, where there is a cost-benefit assessment of value or reward in interactions, exchanges and relationships. If the cost-benefit is not seen as fruitful or worth pursuing, the result of the relationship's or engagement's inputs are reduced or terminated, generally seen as "juice not worth the squeeze." Because workplace relationships, both formal and informal, are also seen to be impacted by SET, there is risk of perceived lack of value in the supervisor-employee hierarchical relationship, such that the emotional, discretionary effort and time resources might be intentionally reduced based on imbalance in the constant cost-benefit assessment.

Sociologist George Homans' research, from 1958 to1961, built the foundation for SET, by proposing three unique propositions found within social interaction (Homans, 1958; 1961). The first proposition is "success proposition," whereby an individual identifies rewards for their actions and repeat the action on the basis of past reward. The second proposition is "stimulus proposition," which identifies the frequency of a reward in past interactions, as the driver of a probability of response to the stimulus. The final proposition is "deprivation-satiation," which theorizes the more often a particular reward has been received in the past, the less valuable the reward will become.

Thibaut and Kelley followed Homans with a greater foundation in game theory, and the impact of power in relationships (Thibaut & Kelley, 1959). Because of their foundation in Game Theory, Thibaut and Kelley described an individual actor's ability to assess power imbalance and modify behaviors to achieve intended outcomes. This approach to SET was less of a subconscious happening and more of a deliberate decision making process.

Peter Blau took a similar theoretical approach to exchange, but focused less on the psychology of interactions and more on the economics; less on individual actors and more on small groups. Blau's perception of debt in social exchange was also unique, in that he theorized people's pursuit of remaining out of debt as caused by a desire to obtain an advantage and the resulting power. This general notion is driven by individual or collective selfishness. Furthermore, Blau proposed (as many before him had) the notion of no selfless act. That is, people acted in service or exchange with others to receive something in return. Fundamental to this study and the understanding of supervisors and employees, is Blau's proposition towards relationships. Blau proposed that the most thriving friendships occur when both parties have equal status and potential for benefit from the relationship. This view of friendships is based in the notion of relationships arising out of favorable and desirable traits seen in others, which triggers progression of the relationship and exchange of value.

Richard Emerson's (Emerson, 1976) work was influenced most by Blau and Homans, focusing most on the constructs of resource availability, power and dependence. Of critical importance to Emerson's perspective are the states of balance and imbalance in exchange. Balanced dependence results in balanced power in exchange. Power

Dependence Theory (PDT) was born from Emerson's understanding of SET, proposing exchange not as a theory, but a framework from and through which meaningful theory could arise. From Emerson's exchange theory and PDT, we can better understand the supervisor's role in engagement, as this superior power position results in a power imbalance. The employee then must act within this power imbalance, and might take deliberate action in the exchange to achieve greater levels of balance. This might be achieved through offering unique value to the work or workplace which the supervisor is charged with leading. Therefore, SET works both ways in the relationship between leader and led, where face value power favors the leader, but underlying facets of power can be rebalanced in favor the led.

2.8 The Role of Supervisor in Engagement

If employee engagement is dependent upon three psychological conditions of meaningfulness, safety and availability (Kahn, 1990), it would be quite simple to infer the criticality of the supervisor's role to engagement of their employee. There exists extensive literature on supervisory responsibility and the leader-follower dynamic in the workplace, but we will focus specifically on confirming the role of supervisor, as primary social contextual variable, in an employee's engagement.

Figure 2, graphically depicts Robinson et al. (2004) and the IES (2003) declaring "immediate management," as of second highest importance to an employee feeling valued, a mediator to engagement. This supervisory importance was second only to, "training, development and career."

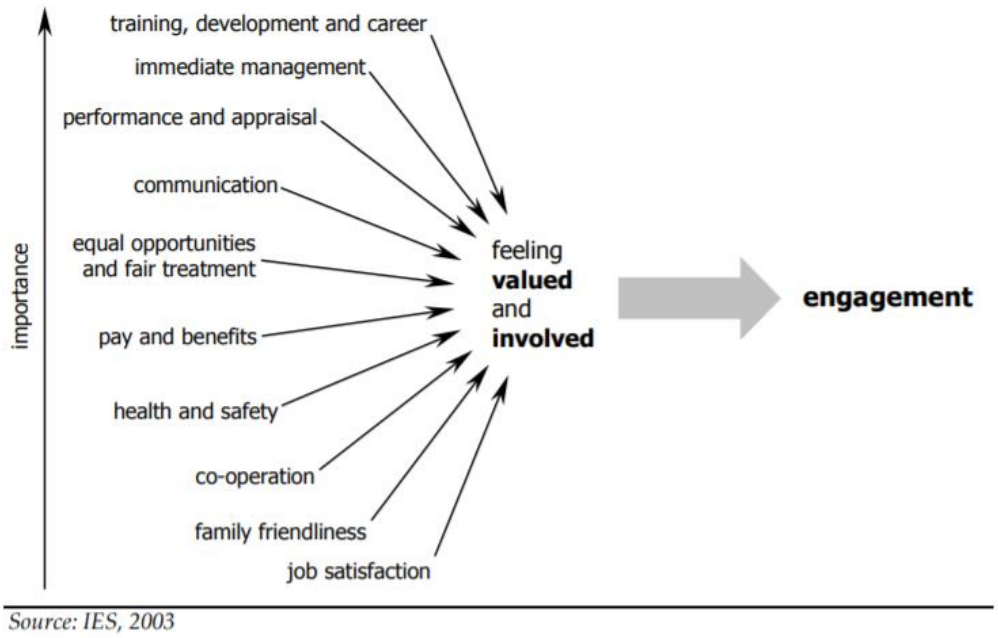

Figure 2. Drivers of Employee Engagement (Robinson et al., 2004).

Walumbwa et al.'s (2008) defined of authentic leadership as demonstration of four characteristics or traits: self-awareness, relational transparency, balanced processing of information and internalized moral perspective. Self-awareness, is, "demonstrating an understanding of how one derives and makes meaning of the world and how that meaning making process impacts the way one views himself or herself over time," (Walumbwa et al., 2008, p.95). Relational transparency, referred to presenting one's authentic self to others (Walumbwa et al., 2008). Balanced processing of information is a leader demonstrating the objective analysis of relevant data before making a decision, and an internalized moral perspective simply highlights moral self-regulation (Walumbwa et al., 2008).

Jiang & Men (2017) built upon Walumbwa et al.'s foundation for a leader's role and examined the relationship between authentic leadership, transparent organizational

communication and work-life enrichment. Jiang and Men (2017) found authentic leadership to be strongly positively associated to transparent communication and work-life enrichment, which in turn was strongly positively correlated to employee engagement. While this study did not test for a direct effect between authentic leadership and employee engagement, the general association appears to clearly point to leaders having significant impact on employee engagement.

In a unique study analyzing the impact of supervisor distractedness (from cell phones) on employee engagement, Roberts et al. (2017) found that the erosion of supervisory trust, or the decrease in Kahn's (1990) safety, meaningfulness and availability, decreased employee engagement. Li & Tan (2013) hypothesized similar confirmation of the connection between supervisory trust and employee engagement-related positive psychological conditions, finding that trust in a supervisor increases psychological availability and safety. There is evidence to suggest that additional leader actions have a direct impact on employee engagement, beyond their general leadership authenticity. According to Robinson et al. (2004, p. 11), "having an accident or an injury at work, or experiencing harassment (particularly if the manager is the source of the harassment) both have a big negative impact on engagement. Robinson (2004) also emphasized the importance of a development plan to engagement, stating, "employees who have a personal development plan, and who have received a formal performance appraisal within the past year, have significantly higher engagement levels than those who have not," (Robinson et al., 2004, p.11).

Because this research is being conducted in the expectation of application towards pressing real-world issues, the researcher will take slight liberty in the terminology

utilized in explaining the construct which reflects one's perception of their supervisor's leadership effectiveness. Throughout this research, this construct will be referred to as "Positive Perceptions of Leadership Effectiveness (PPLE)."

PPLE, summarizes an others-rated construct of positive leadership traits which could be viewed under the context of overall effectiveness. While individual definitions of leadership effectiveness are many, the researcher will lean upon the five sub-dimensions of leadership provided by David Campbell (1991), largely because of the rigor by which Campbell arrived at the final factors measured. Campbell's commercialized instrument is known as the "Campbell Leadership Index," or "CLI." While the CLI measures several different primary factors of leadership, the leadership factor itself, measures leadership, energy, affability, dependability and resilience (D. Campbell, 1991). The leadership dimension is defined as, "the act of being out front, making new and creative things happen." The energy dimension is defined as, "a recognition of the physical demands that acts of leadership often require such as long hours, stressful days, difficult decisions, wearying travel and public appearances." Affability is defined as, "an acknowledgement that people are important in the leadership process and should be made to feel valued." Dependability is defined as, "the ability to allocate resources and manage details." Finally, resilience is defined as, "the need for optimism, mental durability, and emotional balance."

In an article written following the completion of the CLI, Campbell (1991) provided a summary table of the top descriptors within each of these five dimensions. Table 3 contains a listing of each of these dimensions, their sub-dimensions and associated synonyms for each.

Table 3. PPLE Dimensions

Dimension	*Sub-Dimension*	*Synonyms*
Leadership	Ambitious	Competitive, forceful
	Daring	Adventuresome, risk-taking
	Dynamic	Enthusiastic, inspiring
	Enterprising	Impressive, Resourceful
	Experienced	savvy, well-connected
	Farsighted	insightful, forward-looking
	Original	creative, imaginative
	Persuasive	creative, imaginative
Energy	Energetic	Active, healthy
Affability	Affectionate	emotional, not aloof
	Considerate	cooperative, helpful
	Empowering	encouraging, supportive
	Entertaining	extraverted, humorous
	Friendly	cheerful, likeable
Dependability	Credible	candid, trustworthy
	Organized	orderly, methodical
	Productive	dependable, effective
	Thrifty	frugal, not extravagant
Resilience	Calm	easy-going, serene
	Flexible	adaptable, not stubborn
	Optimistic	resilient, well-adjusted
	trusting	trusting, not cynical

2.9 Generational Diversity

Although there are several definitions of "generation," this research will view generations as a categorical consideration assigned to a series of events a group of people shared in common during their formative years (Smith & Clurman, 1997). This approach is absent of terms such as "changing" or "temporary," because the researcher will focus more on the relationships between two temporal and experiential groups, rather than on the evolution of those groups over time. Studies such as James et al.'s (2011) study of engagement and age diversity within the retail industry, have taken less common approaches to generational categorization, but for the sake of commonality, this study accepts common US generations, defined as: GI Generation (born 1901-1926), Mature/ Silent Generation (1927-1945), Baby Boomer Generation (1946-1964), Generation X (1965-1980), Millennial/ Y Generation (1981-2000) and Generation Z (2001-2020)(Kapoor & Solomon, 2011). Of these six generations, only the GI Generation has left the active workforce. We will now explore the surface of the literature present on generational differences in the modern workplace. Of geographic nuance to the US, the proportions of generations in the workplace in America includes a "baby boom," which did not occur in Western Europe or the Pacific. Of this same US Baby Boomer generation, when surveyed by AARP (*AARP Work & Jobs Study*, 2015), 37% anticipate working past retirement.

Lyons & Kuron (2014) summarized areas of interest to the generational divergence discussion. The categories include: differences in personality, professional values, work attitudes, work-life balance preferences, the importance of teamwork, career

patterns and leadership preferences/behaviors (Lyons & Kuron , 2014, p.143-149). Amaya & Gedro (2014) proposed the addition of technology and psychological traits to this list. Regardless of which criteria you select to frame differences from, each of these categories have the capacity to create disconnect between leader and follower, eroding supervisory trust, and in turn decreasing engagement. While these potential differences cannot be ignored, scholars as well as practitioners have noted the importance of individuality in this often over-generalization of generations, while cautioning practitioners to avoid stereotyping (Amayah & Gedro, 2014; Stanton, 2017; Van Rossem, 2019).

2.9.1 Generational Cohort Theory

Eletter's (2017) Generational Cohort Theory, claims that as generations remained stratified by the birth years, age, location and historic life events shared in common, such "groups tend to develop a collective personality, ideas and feelings about authority, organization and behavior." One of the most significant manifestations of generational cohorts in the workplace, can be found within work value differences. These differences shape job satisfaction and commitment, ultimately driving work attitudes and behavior. Social exchange theory plays a significant role within generational cohort theory, in that members of a generation would value similar environments, leadership styles, work experiences, etc. Across generations, these values displayed in various combinations and permutations may represent optimal conditions for work engagement and performance.

In observing the correlation between generational cohort and engagement, Robinson et al. (2004) suggested engagement levels decline as employees get older, followed by an increase in engagement in employees in later years, but engagement and

length of service are negatively correlated. While this notion of age is a moving target, the trend provides insight, not just to today's generational combinations, but also to that of the future.

While generational diversity's impact on the relationship between engagement and one's perception of their supervisor's leadership effectiveness has yet to be measured, this research will seek to propose GD's role as one of moderation, challenging the common belief that all diversity is good for engagement.

2.10 Personality

Our understanding of personality is derived out of psychology's trait theory, also referred to as dispositional theory. At the highest level, human traits are the thoughts, emotions and behaviors which are manifest in habitual patterns. While traits are subject to change over time, there is a level of consistency and resistance to change inherent in personality traits. The level to which a trait can be either possessed or not possessed varies, as some traits are not binary, but exist at some level along a spectrum-like scale. Gordon Allport (1961), in his writings on "Pattern and growth in personality," is viewed as one of the original pioneers on trait theory. Allport defined traits as a unit of personality, of which there are three hierarchies: cardinal traits, central traits and secondary traits. Cardinal traits are the rarest traits, but have the most impact on an individual's behavior. Central traits, are those traits which are found in every person, to varying degrees. Central traits do not play as significant, or cardinal role, within the individuals live and actions. Secondary traits, are considered the lowest level trait in the hierarchy, and are seen as characteristics which are only evident in certain circumstances.

From Allport's trait theory foundation, many applied scales were born, each with their own unique perspective on the hierarchy of traits, and which traits should be included in any personality assessment. While scales such as the Myers-Briggs Type Indicator are quite commercialized, this four factor (or letter) model is not a one-size fits all approach to personality assessment. The five-factor model, often referred to as the "Big Five" personality traits, was originally presented by Tupes and Christal in 1961 (1961), but did not receive significant national attention until 1990, when J.M. Digman published, "Personality structure: Emergence of the five-factor model (Digman, 1990)." Later models such as Raymond Cattell's (Cattell & Mead, 2008)16 personality factor (16PF) model is loosely tied to five primary factors.

The Big Five personality traits, or domains, were intended to remain largely un-correlated. They are: openness to experience, conscientiousness, extraversion, agreeableness and neuroticism (Digman, 1990; Tupes & Christal, 1961). In subsequent research, and essential to this study, are the sub-factors associated to each of the overarching five primary personality traits. The work of DeYoung et al. (2007) produced two sub-factors (or aspects), for each of the five factors that make up the Big Five model. These sub-factors will contribute significantly to the instrument used in this study, and were developed through factor analysis of 75 facet scales. The aspects are: intellect and openness for "openness to experience," enthusiasm and assertiveness for "extraversion," volatility and withdrawal for "neuroticism," industriousness and orderliness for "conscientiousness," and compassion and politeness for "agreeableness." These facets or sub-factors, will be leveraged within the researcher's instrument, as described in Chapter 4 of this proposal.

While the history behind the number of factors and their progression over time might be interesting to a psychology-focused manuscript, personality will later be described as a mediator in this research study. This mediator, however, is not the primary focus of the study but must be understood to proceed with the research.

Chapter 3: Theoretical Model, Research Models and Hypotheses

3.1 Research Methodology Introduced

In order to answer the research questions posed in Chapter 1 on the relationship between Perceived Positive Leadership Effectiveness (PPLE), Employee Engagement (ENG) and Generational Diversity (GD), the researcher posits three major hypotheses, one of causal effect and two of moderating effects. Section 3.2 contains these hypotheses. Section 3.3 provides the theoretical framework to be applied in the conduct of this research study, Section 3.4 covers two resulting research models which were used in the testing of each hypothesis and Section 3.5 connects a supporting body of literature with the justification for each hypothesis.

3.2 Research Hypotheses

Research Hypotheses, descriptions and codes are provided in Table 4.

Table 4. Hypotheses, Codes and Descriptions

Code	Description	Depiction
Causal Effect Hypotheses		
$H1^{+}$	As an employee's Positive Perception of Leader Effectiveness (PPLE) increases, the Employee's Engagement (ENG) will also increase.	PPLE>ENG
$H1a^{+}$	As an employee's Positive Perception of Leader Effectiveness (PPLE) increases, the employee's Cognitive Engagement (CE) will also increase.	PPLE>CE
$H1b^{+}$	As an employee's Positive Perception of Leader Effectiveness (PPLE) increases, the employee's Emotional	PPLE>EE

	Engagement (EE) will also increase.	
$H1c^{+}$	As an employee's Positive Perception of Leader Effectiveness (PPLE) increases, the employee's Behavioral Engagement (BE) will also increase.	PPLE>BE
Moderating Effect Hypotheses		
$H2a^{+}$	Generational Diversity (GD) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when Generational Diversity-Separation (GDSep) is more severe.	(GDsep* PPLE)>ENG
$H2b^{+}$	Generational Diversity-Direction (GDdir) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when the employee is older than their supervisor.	(GDdir* PPLE)>ENG
$H3a^{+}$	Employee Conscientiousness (EPc) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is more conscientious.	(EPc* PPLE)>ENG
$H3b^{-}$	Employee Agreeableness (EPa) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is less agreeable.	(EPa* PPLE)>ENG
$H3c^{+}$	Employee Neuroticism (EPn) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is more neurotic.	(EPn* PPLE)>ENG
$H3d^{+}$	Employee Openness to Experience (EPo) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is more open to experience.	(EPo* PPLE)>ENG
$H3e^{+}$	Employee Extraversion (EPe) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is more of an extravert.	(EPe* PPLE)>ENG

3.3 Theoretical Framework

Figure 3, provides the theoretical framework to be applied in the conduct of this research study.

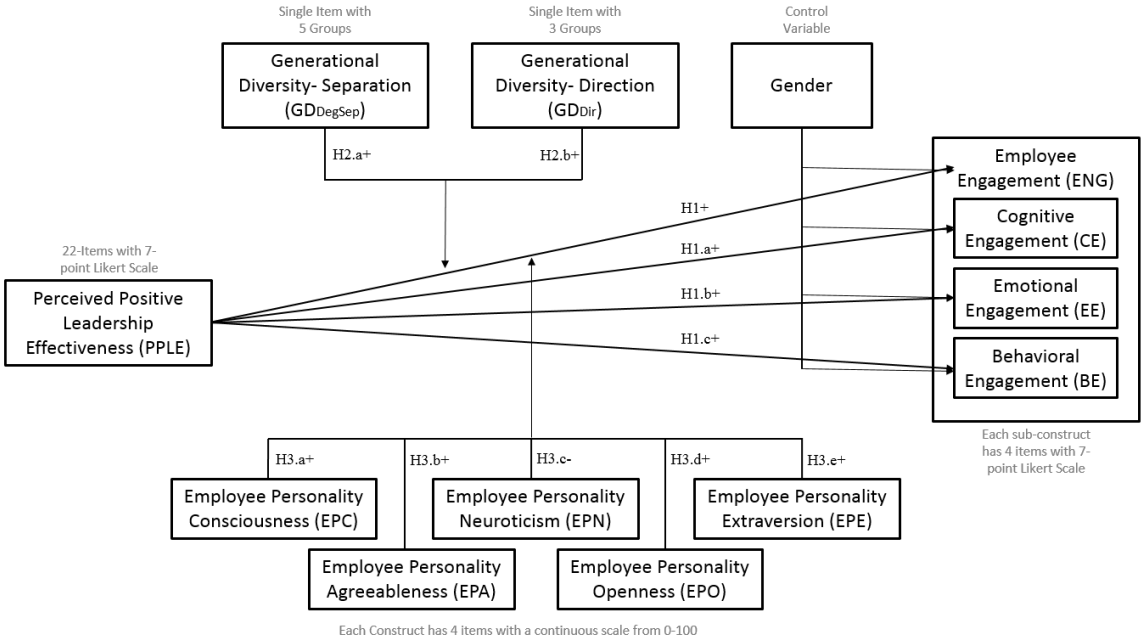

Figure 3. Theoretical Model

3.4 Research Models

In order to answer the aforementioned research questions in Section 1.2 and test support for associated hypotheses, two research models were developed. Research Model 1, depicted in Figure 4, tests the moderating effects of Generational Diversity – Degrees of Separation (GDDegSep), Generational Diversity – Direction (GDdir) and each of the five Employee Personality (EP) dimensions, on the relationship between Perceived Positive Leadership (PPLE) and Employee Engagement. Hypotheses related to Research Model 1, depicted in Figure 4 are H1, H2.a, H2.b, H3.a, H3.b, H3.c, H3.d and H3.e.

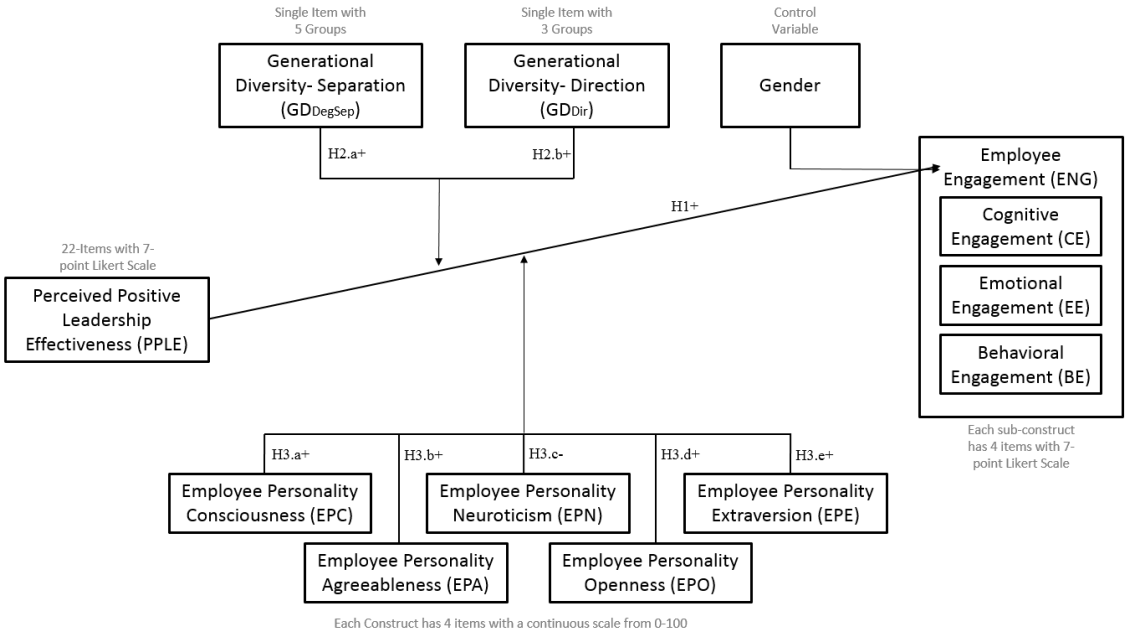

Figure 4. Research Model 1

Research Model 2, depicted in Figure 5, tests the causal effects of Perceived Positive Leadership (PPLE) one Employee Engagement sub-constructs of Cognitive Engagement (CE), Emotional Engagement (EE) and Behavioral Engagement (BE). Hypotheses associated and depicted within the model, are H1a, H1b and H1c.

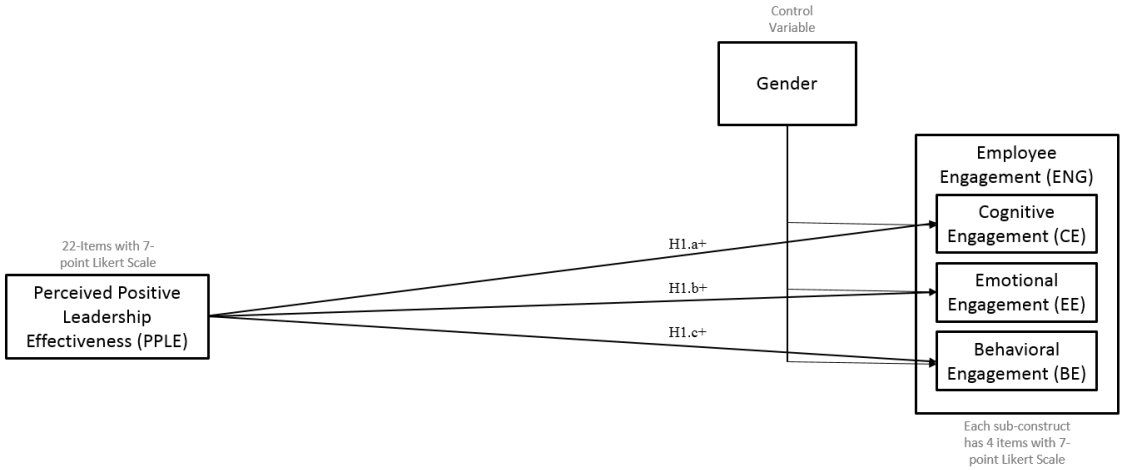

Figure 5. Research Model 2

3.5 Hypothesis Justification

The following section will provide summary justification for each of the aforementioned hypotheses, in conjunction with the theoretical model depicted in Figure 5.

3.5.1 H1: PPLE>ENG

H1 is*, "As an employee's perception of their leader's effectiveness increases, the employee's engagement will also increase."*

As highlighted in Chapter 2, there is a conclusive body of research supporting a supervisor's impact on employee engagement. The entirety of the Social Exchange Theory (Blau, 1964; Emerson, 1976; Homans, 1958, 1961; Thibaut & Kelley, 1959) body of knowledge, serves as a framework to this body of research, simply demonstrating that people in a relationship respond best when there is clear perceived rewards or value in the supervisor-to-employee relationship, which in the case of H1a, H1b and H1c, is a feeling of being effectively led. Fundamental to these hypotheses and the understanding of supervisors and employees, is Blau's (1964) proposition towards relationships. Blau (1964) proposed that the most thriving friendships occur when both parties have equal status and potential for benefit from the relationship. This view of friendships is based in the notion of relationships arising out of favorable and desirable traits seen in others, which triggers progression of the relationship and exchange of value. Richard Emerson (Emerson, 1976) theorized an employee must act within relational power imbalance, such as that between supervisor and employee, and may take deliberate action in the exchange to achieve greater levels of balance. This might be achieved through offering unique value to the work or workplace which the supervisor is charged with leading. Therefore,

SET works both ways in the relationship between leader and led, where face value power favors the leader, but underlying facets of power can be rebalanced in favor the led.

In parallel with SET, much of supervisor driven engagement research ties characteristics of leadership effectiveness to engagement, including Walumbwa et al.'s (2008) and Jiang & Men's (2017)review of authenticity in leadership and engagement, Roberts et al.'s (2017) review of supervisory trust in decreasing engagement and Robinson et al.'s (2004) review of general supervisor behaviors as having direct effects on engagement. With definitions of each engagement and leadership effectiveness dimension highlighted in chapter 2, direct effects of Perceived Positive Leadership effectiveness on engagement should remain positive for cognitive (H1a), emotional (H1b) and behavioral (H1c) engagement. Although it is challenging to justify the strength one hypothesized direct effect over another, it is assumed that behavioral engagement (going the extra mile) may be less affected by PPLE. Because behavioral engagement tracks closely to OCB literature, there is a potential for non-PPLE factors to weigh more heavily on behavioral engagement, resulting in a muted but significant direct effect.

3.5.2 H2: GD* PPLE>ENG

H2, is, *"Generational diversity moderates the relationship between employees' perception of positive leadership effectiveness and employee engagement, such that the relationship is stronger when generational diversity is present (H2b) and more severe (H2b) and when generational diversity is more severe (H2a)."*

Social Exchange Theory laid a groundwork in highlighting the relationship between leader and led (H1), and along with Generational Cohort Theory (Eletter, 2017),

helps us hypothesize how value in generational differences might moderate the relationship between PPLE and engagement. The researcher posits a potential for this relationship to strengthen, when perceived value is recognized or absent in the generational differences found among the working pair. As stated in Chapter 2, Generational Cohort Theory highlights the notion that generations remained stratified by birth years, age, location and historic life events shared in common, and such "groups tend to develop a collective personality, ideas and feelings about authority, organization and behavior." At face value, one might view diversity in these impactful areas to have greater potential to negatively moderate the relationship between PPLE and engagement. However, the researcher views this dynamic as having the potential for resulting in a quasi-compounding moderation effect, where the employee is surprised by the challenging yet diverse perspective of a leader, which results in exponentially increasing engagement.

It is worth mentioning, however, that age diversity presents some unique nuances pertaining to time in service. As Robinson et al. (2004, p. 10) noted, "engagement levels decline as employees get older — until they reach the oldest group (60 plus), where levels suddenly rise, and show this oldest group to be the most engaged of all," and, "engagement levels decline as length of service increases." While this research will not test specifically for diversity by age, the direction and intensity (in terms of degrees of separation) of GD in the working pair will be measured and assessed for relevance to applied settings.

3.5.3 H3: EP* PPLE>ENG

H3 is, *"Employee personality moderates the relationship between employees' perception of positive leadership effectiveness and employee engagement.*

As highlighted in Chapter 2, differences in employee personality have the potential to skew all aspects of how the workplace and workforce are perceived. In keeping with psychological trait theory (Allport, 1961), and given general academic consensus on the resulting "Big 5" personality traits (Digman, 1990; Tupes & Christal, 1961), H3 seeks to test and potentially isolate the moderating effect of personality on the PPLE to ENG relationship. The traits to be evaluated for moderating effects are conscientiousness, agreeableness, neuroticism, openness to experience and extraversion. H3a-H3e hypothesize moderating direction for each of these traits, all of which are hypothesized to be positively moderating, with the exception of agreeableness. The following paragraphs will speak generally to each trait and their moderation of the relationship between PPLE and ENG.

3.5.4 H3a: EPc* PPLE>ENG

H3a is, *"Employee conscientiousness moderates the relationship between employees' perception of positive leadership effectiveness and employee engagement, such that the relationship is stronger when an employee is more conscientious (Positive Moderation)."*

As highlighted in Chapter 2, conscientiousness is often associated with descriptors such as careful or disciplined, but synonymous with descriptors of impulsivity and disorganization. Given these positive descriptors, one should expect a conscientious employee to carefully analyze and seek to understand both leadership effectiveness and

engagement in the workplace. Conscientious employees might also routinely weigh the pros and cons of a work experience and their own engagement. An employee who routinely participates in sub-conscious personality driven thought exercise would likely experience increasing levels of engagement when PPLE is high, in comparison to someone who is impulsive or disorganized.

3.5.5 H3b: EPa* PPLE>ENG

H3b is, *"Employee agreeableness moderates the relationship between employees' perception of positive leadership effectiveness and employee engagement, such that the relationship is stronger when an employee is less agreeable (Negative Moderation)."*

As highlighted in Chapter 2, agreeableness is often associated with descriptors such as trusting or helpful, but synonymous with descriptors of suspicion or a lack of cooperation. Of all of the personality traits, the moderating effect of agreeableness on the relationship between PPLE and ENG might be viewed as least intuitive. The researcher hypothesizes a relationship of negative moderation, based on the notion that a less agreeable employee is in-turn skeptical, and skeptics have been known to be a strong referral base once won over. Therefore, a skeptic who perceives a leader to be sound in leadership practice, might be surprised by the leader's effectiveness and thus ultimately engaged. To the contrary, the fact that PPLE is high for someone who is agreeable, might only result in slight or unnoticeable differences in engagement, thus supporting a relationship of negative moderation.

3.5.6 H3c: EPn* PPLE>ENG

H3c is, *"Employee neuroticism moderates the relationship between employees' perception of positive leadership effectiveness and employee engagement, such that the relationship is stronger when an employee is more neurotic (Positive Moderation)."*

As highlighted in Chapter 2, neuroticism is often associated with descriptors such as anxiety or pessimism, but synonymous with descriptors of calm and confident. Those employees who demonstrate high levels of neuroticism or pessimistic thinking are also most likely to demonstrate extreme responses to stimuli in the workplace. Employees who are calm and confident might be less impacted by their work environment and components such as their supervisor's leadership effectiveness. These employees are probably also more even keel and interested in the bigger picture, rather than anxious or pessimistic about the near term. Therefore, the researcher hypothesizes a neuroticism to positively moderate the relationship between PPLE and ENG.

3.5.7 H3d: EPo* PPLE>ENG

H3d is, *"Employee openness to experience moderates the relationship between employees' perception of positive leadership effectiveness and employee engagement, such that the relationship is stronger when an employee is more open to experience (Positive Moderation)."*

As highlighted in Chapter 2, openness to experience is often associated with descriptors such as imaginative or spontaneous, but synonymous with descriptors of routine or practical. While the researcher believes openness to experience to have the least impact on the relationship between PPLE and ENG, this relationship is hypothesized as one of positive moderation. Openness to experience might determine

one's willingness to embark on new assignments under new leaders, but it doesn't directly speak to how one feels following embarking on these experiences. Practicality, however, might result in more objective evaluation of work relationships and the leader's value to the overarching work product. Without significant support for this hypothesis, the researcher proceeds with openness to positively moderate the relationship between PPLE and ENG.

3.5.8 H3e: EPe* PPLE>ENG

H3e is, *"Employee extraversion moderates the relationship between employees' perception of positive leadership effectiveness and employee engagement, such that the relationship is stronger when an employee is more of an extravert (Positive Moderation)."*

As highlighted in Chapter 2, extraversion is often associated with descriptors such as sociable or fun-loving, but synonymous with descriptors of reserved or thoughtful. Extraversion drives significant desire for social exchange and value from interpersonal relationships. Extraverts in the workplace often seek to be known and liked by their leader, and communicative in the work relationship. To the contrary, introverts often reserve thoughts of displeasure with a leaders approach or assignments for anonymous evaluations like engagement surveys or comments boxes. While neither introversion nor extraversion are better in general work settings, an introversion may not present optimal environment for engagement. The researcher hypothesizes the relationship between PPLE and ENG to be stronger with extravert employees, in part because of the value of feedback and open communication to an engaged workforce. Furthermore, a leader

cannot adjust based off of clearly communicated employee feedback or requests for additional guidance.

Chapter 4: Research Methodology

4.1 Introduction to Research Methodology

In order to evaluate the proposed model, underlying factors and hypotheses generated from the literature, the researcher executed a four part study. The first part of this study was an informed pilot, which focused on establishing face validity and internal reliability of a proposed survey instrument and the constructs therein, as well as on establishing initial support for a refined survey instrument. This research then progressed into a pilot study, which demonstrated feasibility of the overarching research methodology, data collection and data analysis procedures, while building a foundational context for the main study that followed. Pilot Study 2 (PS2) was planned but not executed, as modifications from Pilot Study 1 were minimal. The final part of this research was a main study (MS), which sought to establish support for the hypotheses proposed in Chapter 3. The main study is the subject of complete analysis, building upon the results in the pilot studies, and providing support for certain hypotheses.

4.2 Operationalization of Constructs

In order to operationalize each of the primary constructs within the research model, the researcher leveraged a combination or portion of previously validated instruments. The construct to be represented by a scale within the overarching instrument are: Perceived Positive Leadership Effectiveness (PPLE) Employee Engagement (ENG), Generational Diversity (GD) and Personality (EP). The list of variables, the number of

items within each scale or sub-scale, and the descriptor of each variable, are provided in Table 5.

Table 5. List of Variables

Construct/ Variable	No. Items or Sub-Scales	Description
Generational Diversity (GD)	2 Items	M
Perception of Positive Leadership Effectiveness (PPLE)	22 Items	IV
Employee Personality (EP)	5 Sub-Scales	M
Employee Personality: Conscientiousness (EPC)	4	M
Employee Personality: Agreeableness (EPA)	4	M
Employee Personality: Neuroticism (EPN)	4	M
Employee Personality: Openness to Experience (EPO)	4	M
Employee Personality: Extraversion (EPE)	4	M
Cognitive Engagement (CE)	4	DV
Emotional Engagement (EE)	4	DV
Behavioral Engagement (BE)	4	DV

IV= Independent Variable; M=Moderating Variable; DV=Dependent Variable

In order to operationalize the employee engagement construct, the researcher will leverage Shuck et al.'s (2017) 12 item Employee Engagement Scale (EES). The EES consisted of three sub-factors (cognitive, emotional and behavioral) of engagement within one higher-order factor of employee engagement. The 12-item EES (Shuck et al., 2017), is depicted in Table 6.

Table 6. Reduced 12 Item EES (Shuck et al., 2017) after Study 2

Factor	*Item #*	*Item*
Cognitive Engagement (CE)	*CE1*	I am really focused when I am working.
	CE2	I concentrate on my job when I am at work.
	CE3	I give my job responsibility a lot of attention.
	CE4	At work, I am focused on my job.
Emotional Engagement (EE)	*EE1*	Working at ____, has a great deal of personal meaning to me.
	EE2	I feel a strong sense of belonging to my job.
	EE3	I believe in the mission and purpose of ____.
	EE4	I care about the future of ____.
Behavioral Engagement (BE)	*BE1*	I really push myself to work beyond what is expected of me.
	BE2	I am willing to put in extra effort without being asked.
	BE3	I often go above what is expected of me to help my team be successful.
	BE4	I work harder that expected to help be successful.

In order to operationalize the PPLE construct, the researcher will leverage a simplified extraction of the constructs and sub-constructs measured within the Campbell's Leadership Index (CLI)(D. Campbell, 1991). Within the CLI, the leadership scale is measured with five sub-scales. These sub-scales are leadership, energy, affability,

dependability and resilience. Each sub-scale is then broken down into several descriptors. For leadership, the descriptors are ambitious, daring, dynamic, enterprising, experienced, farsighted, original and persuasive. Energy is not broken down beyond a single energy descriptor. Affability is broken down into affectionate, considerate, empowering, entertaining and friendly. Dependability is described as credible, organized, productive and thrifty. Resilience is described as calm, flexible, optimistic and trusting. Table 7 depicts these sub-scales and items based on the aforementioned descriptors.

Table 7. PPLE Items

Factor	*Item #*	*Leadership Characteristic*	*Item*	*Scale*
Positive Perceptions of Leader Effectiveness (PPLE)	*PPLEL1*	Leadership	My supervisor is ambitious. (Competitive, forceful)	Ordinal, 7 Level Likert
	PPLEL2	Leadership	My supervisor is Daring. (Adventuresome, risk-taking)	Ordinal, 7 Level Likert
	PPLEL3	Leadership	My supervisor is Dynamic. (Enthusiastic, inspiring)	Ordinal, 7 Level Likert
	PPLEL4	Leadership	My supervisor is Enterprising. (Impressive, Resourceful)	Ordinal, 7 Level Likert
	PPLEL5	Leadership	My supervisor is Experienced. (savvy, well-connected)	Ordinal, 7 Level Likert
	PPLEL6	Leadership	My supervisor is farsighted. (insightful, forward-looking)	Ordinal, 7 Level Likert
	PPLEL7	Leadership	My supervisor is Original. (creative, imaginative)	Ordinal, 7 Level Likert
	PPLEL8	Leadership	My supervisor is Persuasive.	Ordinal, 7 Level Likert

			(creative, imaginative)	
	PPLEE1	Energy	My supervisor is Energetic. (Active, healthy)	Ordinal, 7 Level Likert
	PPLEA1	Affability	My supervisor is Affectionate. (emotional, not aloof)	Ordinal, 7 Level Likert
	PPLEA2	Affability	My supervisor is considerate. (cooperative, helpful)	Ordinal, 7 Level Likert
	PPLEA3	Affability	My supervisor is Empowering. (encouraging, supportive)	Ordinal, 7 Level Likert
	PPLEA4	Affability	My supervisor is Entertaining. (extraverted, humorous)	Ordinal, 7 Level Likert
	PPLEA5	Affability	My supervisor is Friendly. (cheerful, likeable)	Ordinal, 7 Level Likert
	PPLED1	Dependability	My supervisor is Credible. (candid, trustworthy)	Ordinal, 7 Level Likert
	PPLED2	Dependability	My supervisor is Organized. (orderly, methodical)	Ordinal, 7 Level Likert
	PPLED3	Dependability	My supervisor is Productive. (dependable, effective)	Ordinal, 7 Level Likert
	PPLED4	Dependability	My supervisor is Thrifty. (frugal, not extravagant)	Ordinal, 7 Level Likert
	PPLER1	Resilience	My supervisor is Calm. (easy-going, serene)	Ordinal, 7 Level Likert
	PPLER2	Resilience	My supervisor is Flexible. (adaptable, not stubborn)	Ordinal, 7 Level Likert
	PPLER3	Resilience	My supervisor is Optimistic. (resilient, well-adjusted)	Ordinal, 7 Level Likert
	PPLER4	Resilience	My supervisor is	Ordinal, 7

			trusting. (trusting, not cynical)	Level Likert

In order to operationalize the Generational Diversity construct, identification of both employee generation and supervisor generation was required. By identifying both generations, both direction and severity could be calculated in the working pair. Items pertaining to Generational Diversity are listed in Table 8.

Table 8. GD Items

Factor	*Item #*	*Item*	*Scale*
Generational Diversity Degrees of Separation (GD*DegSep*) and Generational Diversity Direction (GD*Dir*)	*GD1*	Which of the below generations do you belong to?	Nominal, 5 Levels from Gen Z to Mature Generation
	GD2	Which of the below generations does your immediate supervisor belong to?	Nominal, 5 Levels from Gen Z to Mature Generation

In operationalizing employee personality, the researcher leveraged the "Big 5" personality traits, and drew a simplified version the positive and negative descriptors of each trait. The five traits, as described in Chapter 2, are conscientiousness, agreeableness, neuroticism, openness and extraversion (Digman, 1990; Tupes & Christal, 1961). Table 9, depicts these 5 traits and the associated 10 item scale for employee personality. It is important to note that the researcher will be operationalizing personality traits in a "slider-type" scale, where each trait has a synonym or descriptor on one side of the slider, and antonym on the other side. Each item will be predicated by the statement, "I am…." The survey participants will be asked to move the slider to a value somewhere in between

each. This value will be captured as a 7-level Likert value, in conjunction with the rest of the instrument.

Table 9. EP Items

Factor	*Item #*	*Trait*	*Synonym or Antonym*
Employee Personality (EP): Conscientiousness	*EPCy1*	Disciplined	Synonym
	EPCy2	Careful	Synonym
	EPCn1	Impulsive	Antonym
	EPCn2	Disorganized	Antonym
Employee Personality (EP): Neuroticism	*EPNy1*	Anxious	Synonym
	EPNy2	Pessimistic	Synonym
	EPNn1	Calm	Antonym
	EPNn2	Confident	Antonym
Employee Personality (EP): Agreeableness	*EPAy1*	Trusting	Synonym
	EPAy2	Helpful	Synonym
	EPAn1	Suspicious	Antonym
	EPAn2	Uncooperative	Antonym
Employee Personality (EP): Openness to Experience	*EPOy1*	imaginative	Synonym
	EPOy2	spontaneous	Synonym
	EPOn1	Routine	Antonym
	EPOn2	Practical	Antonym
Employee Personality (EP): Extraversion	*EPEy1*	sociable	Synonym
	EPEy2	fun-loving	Synonym
	EPEn1	Reserved	Antonym
	EPEn2	Thoughtful	Antonym

4.3 Population and Sample Population

The population of interest to this study, is full-time (>35 hours/wk) employed professionals in the United States, who have a reporting responsibility to a direct supervisor. Self-employed individuals are not within the scope of this study. This population is inclusive of adults, 18 and older, and consists of varying combinations of generational representation in both subordinate and supervisor. Members of the population vary in responsibility, from individual contributor to executive, as will their "supervisor."

This research required three sample populations. A sample of five subject matter experts was required for an informed pilot, 75 participants for Pilot Study 1 and a total of 200 participants to comprise main sample population which included PS1 Participant responses.

The sample populations for PS1 and the MS were selected and enrolled in the study through the use of Mturk administration tools. Given limited success with non-compensatory approaches to recruitment in previous research, this sample was offered compensation equivalent to $8 to $10 per hour of productive work. Because engagement exists as an underlying construct of this research, both participant bias and attrition bias represent risk to study results, as more engaged professionals may be more likely to respond to an engagement survey. Participant bias will be minimized through the inclusion of compensation. Attrition bias will be managed through the elimination of interesting, but unimportant additional items, to include questions pertaining to interesting but non-critical demographic elements. Target survey average completion time should remain below 10 minutes.

4.4 Instrumentation

A quantitative, internet-based survey will be used as the primary data collection instrument for the study. The survey was be made available within Qualtrics, through Amazon Mturk for administration. Participation remained voluntary, and participants were marginally compensated to promote participation. Each participant was required to consent to the study prior to progressing to the first item, and all completed surveys were assigned a unique survey completion ID to aid in compensation and cohorting.

The final survey instrument in its administered format from Qualtrics, is provided in Appendix A.

4.5 Data Collection Procedures

Data collection was enabled through Qualtrics survey development and Amazon Mturk "Hit" administrative tools. The target sample population within Mturk was set according at 110% of the target sample populations for both the pilot and main studies, with controls for repeat respondents as well as partial participation. Consents were embedded within the instrument as a required pre-requisite to survey completion. Randomized survey completion identification codes were added to the end of each survey, and were required to be entered with Mturk to complete response submission and receive compensation. Given the level of automation and the existence of the instrument within the Qualtrics and Mturk environments, this study could be easily replicable using the same instrument.

4.6 Informed Pilot Study

Prior to executing PS1, an Informed Pilot Study was conducted with a convenience sample of five Subject Matter Experts (SMEs), each working within the healthcare industry. The purpose of this pilot study was to establish face validity and internal reliability, by assessing and modifying the primary data collection instrument. The three major components of this informed pilot, were SME engagement, pilot study data collection and follow-on analysis. A summary of the procedures followed, is listed in Table 10.

Table 10. Informed Pilot Procedures

Step	Title	Description

1	Qualtrics Survey Generation	Generate Qualtrics survey with required pre-survey consent item embedded as question 1. Copy and save survey link for use in email and Mturk distribution
2	Email Solicitation	Generate email solicitation for distribution to 5 trusted pilot participants. Send email to participants once final.
3	Core SME Identified	Identify 5 core SMEs within the internal pilot participant group to conduct in depth review of instrument and study
4	SME Focus Group	Distribute survey to SME group. Review constructs and preliminary survey instrument with SME group, identifying opportunities for increasing face validity and internal reliability of the instrument
5	Make Instrument Modifications	Based on feedback from the SME group and any new supporting literature, make necessary changes to the survey instrument.
6	Reporting	Complete write up of Pilot Study Results.

4.6.1 Informed Pilot Study Instrument Feedback

In an effort to evaluate the face validity and internal reliability of the modified EES instrument depicted in Table 10, five participating SMEs were provided insight on core constructs within the study, study intent and a printed survey instrument. During this review, several key findings came to light. Gender was identified as an area which could use additional options. Items on Perceived Positive Leadership Effectiveness (PPLE) were mostly well received as measuring what they were intended to measure, with the exception of two items. Each of the three primary engagement constructs (CE, EE, BE) within the study were found to be totally suitable. Employee Personality (EP) measurement received the lowest suitability scores, generating productive conversation on how to better position these sub-constructs within the instrument.

Table 11, demonstrates two of the most engaged SME's evaluation of the validity of each item and construct. In evaluation of each item, participants we asked how they

felt about the suitability of each item. Items receiving a score of less than 4.0, were determined to lack perceived validity, and would be further evaluated by an additional SME group. The lowest score for any particular item was 3, requiring the researcher to discuss these items in depth with the pilot group. Scoring from this exercise can be seen below. The validity calculation can be seen under the column "Validity Score." The overall validity score for the instrument was 4.66 out of 5.

Table 11. Calculating Validity with SME's Responses

Construct / Variable	Item	Totally Suitable (5)	Suitable (4)	Moderate (3)	Unsuitable (2)	Totally Unsuitable (1)	Validity Score
Demographics	*D: Gender*		1		1		3
	B1	2					5
	B2	2					5
Education	*EDU1*	2					5
	EDU2	2					5
Generational Diversity (GD)	*GD1*	1	1				4.5
	GD2	1		1			4
Positive Perceptions of Leader Effectiveness (PPLE) (Leadership)	*PPLEL1*	2					5
	PPLEL2	2					5
	PPLEL3	2					5
	PPLEL4	2					5
	PPLEL5	2					5
	PPLEL6	2					5
	PPLEL7	2					5
	PPLEL8	2					5
	PPLEE1	1			1		3.5
	PPLEA1	1		1			4
	PPLEA2	2					5
	PPLEA3	2					5
	PPLEA4	2					5
	PPLEA5	2					5
	PPLED 1	2					5
	PPLED 2	2					5

	PPLED 3	2			5
	PPLED 4	2			5
	PPLER1	2			5
	PPLER2	2			5
	PPLER3	2			5
	PPLER4	2			5
Cognitive Engagement (CE)	*CE1*	2			5
	CE2	2			5
	CE3	2			5
	CE4	2			5
Emotional Engagement (EE)	*EE1*	2			5
	EE2	2			5
	EE3	2			5
	EE4	2			5
Behavioral Engagement (BE)	*BE1*	2			5
	BE2	2			5
	BE3	2			5
	BE4	2			5
Behavioral Engagement (BE)	BE1	2			5
	BE2	2			5
	BE3	2			5
	BE4	2			5
Employee Personality (EP): Conscientiousness	*EPCy1*	1		1	4
	EPCy2	1		1	4
	EPCn1	1		1	4
	EPCn2	1		1	4
Employee Personality (EP): Neuroticism	*EPNy1*	1		1	4
	EPNy2	1		1	4
	EPNn1	1		1	4
	EPNn2	1		1	4
Employee Personality (EP): Agreeableness	*EPAy1*	1		1	4
	EPAy2	1		1	4
	EPAn1	1		1	4
	EPAn2	1		1	4
Employee Personality (EP): Openness to Experience	*EPOy1*	1	1		4.5
	EPOy2	1	1		4.5
	EPOn1	1	1		4.5
	EPOn2	1	1		4.5

Employee Personality (EP): Extraversion	*EPEy1*	1	1		4.5
	EPEy2	1	1		4.5
	EPEn1	1	1		4.5
	EPEn2	1	1		4.5
				Total	4.66

In further informed pilot discussion, feedback on EP items were categorized into two key constructive themes: 1) Synonyms and Antonyms of each of the "Big 5," traits were perceived as positive and negative, forcing the respondent to claim a personality deficiency in truthful response to the negative items they possessed; 2) The format of each of the items were confusing. Feedback was incorporated within the instrument through two overarching changes: 1) Each of the Big 5 synonyms and antonyms were separated into independent items, as opposed to a selection requiring bias towards one of two opposite traits; 2) Each trait item was reconfigured to require response over a sliding scale of 0 to 100, with clear instructions toward selecting a value which best represented the respondent.

After discussion of the aforementioned solutions, the informed pilot participants were in agreement with the resulting increases in validity as a result of changes.

4.7 Pilot Study 1

Following an Informed Pilot Study, Pilot Study 1 was conducted with 75 compensated survey participants. The purpose of this pilot study was to further evaluate the primary data collection instrument and determine the adequacy of data analysis procedures proposed to answer the research question. The two major components of this pilot study were pilot study data collection and follow-on analysis. Summary procedures can be found in Table 12.

Table 12. Pilot Study 1 Procedures

Step	Title	Description
1	Qualtrics Survey Modification	Generate an updated Qualtrics survey with required pre-survey consent item embedded as question 1. Copy and save survey link for use in email and Mturk distribution
2	Pilot Group Mturk Solicitation	Generate Mturk task with embedded survey link, appropriate compensation and necessary HIT requirement for appropriate sample size. Set target at ~85 survey participants.
3	Data Collection	Release survey instrument within the production Qualtrics and Mturk environments.
4	Consolidate Data	Export all responses to SPSS and consolidate data, remove blank surveys and release Mturk compensation
5	Data Analysis	Screen and modify data, test of normality, EFA, Measures of Internal Reliability, Descriptives, Hypothesis Testing
6	Reporting	Complete Pilot Study Results.

4.7.1 Pilot Study 1 Sample Population

The sample population from Pilot Study 1, consisted of a convenience sample of 75 participants who met full time employment criteria within the United States. Each of these 75 participants were solicited through a compensated survey request using Amazon Mturk. Without significant exploration of demographics, the researcher needed to ensure Mturk was capable of providing a sample population, reflective of the workforce in the United States. Gender, generation and generational diversity of the work relationship were most essential. Table 13 depicts the sample profile for Pilot Study 1.

As seen in Table 13, of the 75 participants, 46 (61.3%) were male, 28 (37.3%) were female and 1 (1.3%) participant identified as “other.”

Similar questions were asked related to respondent’s generational belonging, as well as their supervisors. The sample consisted of no participants from Generation Z, 41 (54.7%) Millennial, 30 (40%) Generation X, 4 (5.3%) Baby Boomer, and 0 Mature. Their corresponding leaders consisted of 1 (1.3%) Generation Z, 17 (22.7%) Millennial, 40

(53.3%) Generation X, 15 (20%) Baby Boomer and 2 (2.7%) Mature. These results show a central tendency towards the Millennial Generation in subordinates and Generation X in supervisors.

In responding to whether GD was present within each of the work relationships, with specific consideration for generations of separation, 33 (44%) relationships were generationally similar (absence of GD), 34 (45.3%) relationships were separated by one generation, 7 (9.3%) relationships were separated by two generations and 1 (1.3%) relationships were separated by three generations.

In responding to whether GD was present within each of the work relationships, with specific consideration for direction of diversity, 33 (44%) relationships were generationally similar (absence of GD), 6 (8%) relationships were characterized by a supervisor who was of a later (younger) generation than their employee counterpart, and 36 (48%) relationships were characterized by a supervisor who was of an earlier (older) generation than their employee counterpart. If representative of the population, GD is more common than not in the workplace, and traditional relationships of elder supervisors remain the norm with respect to direction.

While not measured within the research, educational level was collected in the event of further analysis. Table 13, provides this distribution in detail.

Table 13. Sample Profile

Group	Frequency	Percentage (%)
Gender		
Male	46	61.3
Female	28	37.3
Other	1	1.3
Subordinate's Generation		
Generation Z (Born 2001-2020)	0	0

Millennial/ Y Generation (Born 1981-	41	54.7
Generation X (Born 1965-1980)	30	40
Baby Boomer Generation (Born 1946-	4	5.3
Mature/ Silent Generation (Born 1927-	0	0
Supervisor's Generation		
Generation Z (Born 2001-2020)	1	1.3
Millennial/ Y Generation (Born 1981-	17	22.7
Generation X (Born 1965-1980)	40	53.3
Baby Boomer Generation (Born 1946-	15	20.0
Mature/ Silent Generation (Born 1927-	2	2.7
Generational Diversity (GD) Degrees of Separation		
No Generational Diversity Present	33	44.0
1 Generation of Separation	34	45.3
2 Generations of Separation	7	9.3
3 Generations of Separation	1	1.3
Generational Diversity (GD) Direction of Relationship		
0, Employee Generation = Supervisor	33	44.0
1, Employee Generation > Supervisor	6	8.0
2, Employee Generation < Supervisor	36	48.0
Employee (Respondent) Education		
High School or Equivalent	20	26.7
Associate's Degree	17	22.7
Bachelor's Degree	31	41.3
Master's Degree	7	9.3
PhD or Doctorate	0	0
Employee (Respondent) Education		
High School or Equivalent	12	16.0
Associate's Degree	4	5.3
Bachelor's Degree	36	48.0
Master's Degree	14	18.7
PhD or Doctorate	4	5.3
I am unsure	5	6.7

4.8.2 Pilot Study 1 Reliability Analysis

Following instrument review and discussions of face validity, the researcher conducted reliability testing on each of the four included factors within the model and

instrument. The minimum acceptance value of Cronbach's alpha is .60 to .70 (Cronbach, 1951; Cronbach & Meehl, 1955). All five higher order factors, were found to have high internal reliabilities greater than or equal to .823. Table 14, shows reliability test results for each of the first and second order constructs. Employee Personality trait-level constructs found to have lower internal reliability, with values from .807 to .376. The researcher attributes this lack of interrater reliability to the reverse coding of 50% of the items within each trait-level scale. Because each 4-item sub-construct has two synonym-based, and two antonym-based items, there is a natural lack of agreement within the scale.

Table 14. Reliability Test Results from Pilot Study 1 (n=75)

Constructs	# of Items	Internal Reliability (Cronbach Alpha)
Positive Perception of Leadership Effectiveness (PPLE)	22	.954
Cognitive Engagement (CE)	4	.942
Emotional Engagement (EE)	4	.941
Behavioral Engagement (BE)	4	.927
Employee Personality (EP) All	20	.823
Employee Personality (EPC) Conscientious	4	.553
Employee Personality (EPN) Neurotic *	4	.807
Employee Personality (EPA) Agreeable	4	.660
Employee Personality (EPO) Openness to Experience	4	.376
Employee Personality (EPE) Extravert	4	.473

* EPN measures inverted to retain positive orientation with other EP Sub-constructs

4.8 Main Study

Following the successful completion of an Informed Pilot Study and Pilot Study 1, the researcher proceeded into the Main Study. The main study was conducted with an

initial estimated target sample population of 200 compensated survey participants. This study will evaluate support for the hypotheses presented within this research.

4.8.1 Main Study Procedures

Table 15, describes the high level Main Study procedures. Of particular importance to this chapter is the Partial Least Squares (PLS) statistical method described in Section 4.9.2.

Table 15. Main Study Procedures

Main Study Procedures		
Step	Title	Description
1	Survey Modification and Distribution	Modify the survey instrument as needed from pilot study findings. Generate Qualtrics survey with required pre-survey consent item embedded as question 1. Copy and save survey link for use in email and Mturk distribution
2	Mturk Solicitation	Generate Mturk task with embedded survey link, appropriate compensation and necessary HIT requirement for appropriate sample size. Target 200-400 survey participants based on desired effect size and statistical parameters.
3	Data Collection	Release survey instrument within the production Qualtrics and Mturk environments.
4	Consolidate Data	Export all responses to SPSS and consolidate data, remove blank surveys and release Mturk compensation
5	Data Analysis Using Smart-PLS SEM	1. Screen and modify data 2. Test of normality 3. CFA with key metrics of Factor Loading, Average Variance Expected (AVE), Composite Reliability (CR), and Cronbach Alpha 4. Test discriminant validity with Fornell Larcker Criterion 5. Run Descriptives 6. Hypothesis Testing of Causal Effects for Structural Model 1 (H1) 7. Hypothesis Testing of Moderating Effects for Structural Model 2 (H2a, H2b, H3a-H3e)) 8. Hypothesis Testing of Causal Effects for

		Structural Model 3 (H1a, H1b, H1c)
6	Reporting	Complete Main Study Results.

4.8.2 Partial Least Squares (PLS) and Structural Equation Modelling (SEM)

The Partial Least Squares (PLS) statistical method was used in place of principle components regression, specifically because of the exploratory approach of the research and common statistical challenges with the use of IBM's SPSS platform (used in Pilot 1) in the conduct of Structural Equation Modeling (SEM) and evaluation of construct validity. Structural Equation Modelling (SEM), or Path Analysis, is a causal modeling approach to exploring the correlations between constructs, and typically results in making a decision on whether to accept, modify or reject the model in whole (Chen et al., 2011). There are generally two families of SEM: one based on covariance techniques, known as LISREL, and the other based on variance techniques, which includes PLS path modelling (Gefen et al., 2000).

According to Henseler et al. (2009), who makes a case for PLS as dominant in international marketing research, PLS has been used by a growing number of researchers from various disciplines such as strategic management, management information systems, e-business, organizational behavior, marketing and consumer behavior." The PLS technique is credited to H.O. Wold (1985), and has become a commonly utilized technique for SEM. Henseler et al. (2009) summarizes the utility in characteristics of PLS path modeling, highlighting its ability to deliver latent variable scores, avoid issues with smaller sample sizes, estimate very complex models with significant latent variable and handle both reflective and formative measurement models. Henseler et al. (2009, p.298), also proposes a two-step approach to measuring the reliability and validity of constructs

(the outer model) prior to evaluating the structural, or inner model. This two-step process is depicted in Figure 6.

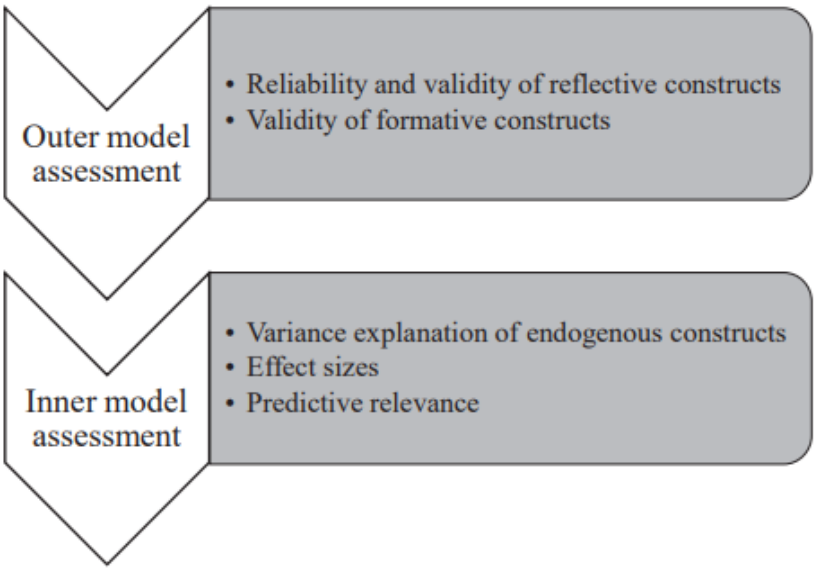

Figure 6. A Two-Step Process of PLS Path Model Assessment ((Henseler et al., 2009, p.298)

4.8.3 Partial Least Squares (PLS) Analysis

For the purposes of data analysis within the Main Study, the researcher utilized Smart-PLS 3.0, one of the more commonly utilized software programs for conducting SEM with PLS-techniques (Ringle et al., 2015).

In the "outer model" step of the PLS Path Model assessment, the validity of constructs is a central outcome and is generally segregated into evaluation of convergent validity and discriminant validity. Convergent validity, focuses specifically on evaluating the items contained within a single construct, and the variance between said items. Convergent validity is measured in terms of factor loading and Average Variance Extracted (AVE) for each of the constructs with associated items. While there is some

debate on appropriate factor loading cutoff, factor loading estimates equal to, or greater than 0.6, are conservatively considered indications of convergent validity (Fabrigar et al., 1999). AVE values of equal to, or greater than 0.5, are also considered support for adequate convergent validity (Fornell & Larcker, 1981).

Following measurement of factor loading and AVE as indications of validity, Composite Reliability (CR) evaluates the internal consistency of the construct, or the degree to which all items within the construct measure the same thing. CR values equal to, or greater than 0.6, would indicate adequate internal consistency (Fornell & Larcker, 1981).

Once measures of construct validity and reliability are assessed, internal reliability, or the extent to which a measure is free of error, is analyzed. Of central importance to internal reliability, is a scale's Cronbach alpha. Higher Cronbach alpha statistics are considered reflective of higher reliability. This statistic ranges from 0 to 1, and is considered acceptable when equal to, or greater than, 0.6 (Cronbach, 1951; Cronbach & Meehl, 1955; Nunnally, 1994). If satisfactory Cronbach Alpha scores are achieved, the researcher proceeds to measures of discriminant validity.

Discriminant validity is essentially the evaluation of whether constructs which are intended to be unrelated, are in fact, unrelated. Assuming correlations do not exceed 0.85, discriminant validity can be measured by comparing the square root of AVE for each relevant construct, to the correlation between them (Kline, 2015). Kline (2015), Suggests evidence of discriminant validity when this comparison results in a smaller correlation than square root of AVE.

Two final statistics are evaluated in reference to the structural model: R^2 (R2) and Q^2d (Q2). R2, is a statistic reflecting the accuracy of the structural model, or the portion of variance in the dependent variable, explained by its predictors (Geisser, 1975; Stone, 1974). Values for R2 should be greater than 0.10, but can be viewed as a range reflective of strength (Cohen, 1988; Falk & Miller, 1992). Q2, provides a measure of structural model adequacy to predict. A Q2 value of greater than 0, provides evidence a model's predictive relevance (Henseler et al., 2009).

Following complete evaluation of reliability, validity, structural model accuracy and predictive relevance, the researcher tested each hypothesis through a statistical technique called, "bootstrapping." Bootstrapping, is a statistical test of significance for multiple PLS-SEM results, such as Cronbach Alpha, R^2 and path coefficients (Efron & LePage, 1992; Ringle et al., 2015). Using SMART-PLS, bootstrapping was performed with 1000 replications (Ringle et al., 2015).

In order to conduct PLS Path modelling and associated analysis, two research models, three structural models, one ancillary CFA model and four associated Smart-PLS models were created.

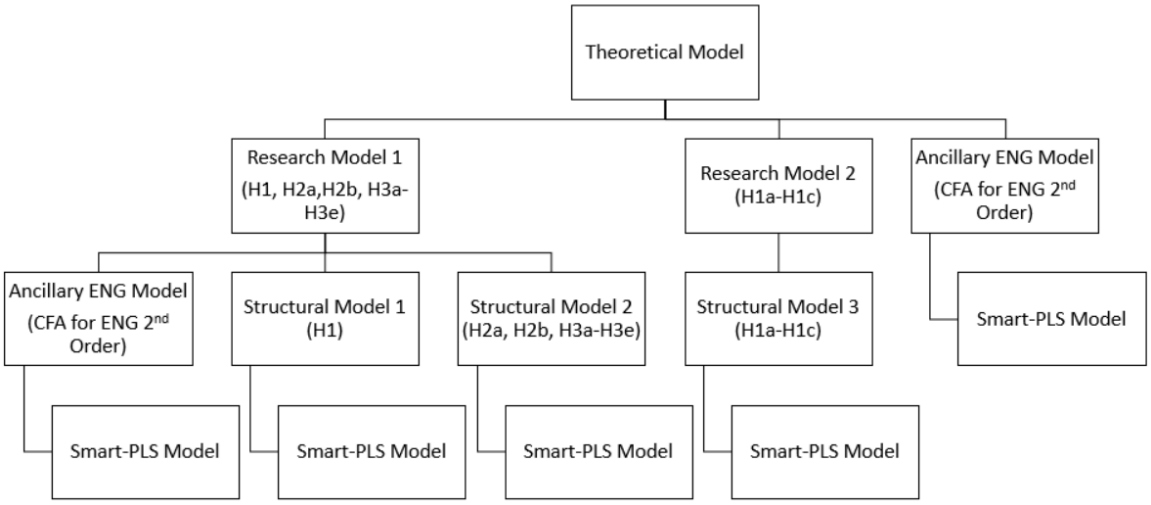

Figure 7. Model Hierarchy for PLS Path Analysis

Chapter 5: Analysis and Results

5.1 Introduction

This chapter describes the researcher's data analysis, the results from such analysis, and any support for hypotheses tested. Of particular importance to this chapter is the Partial Least Squares (PLS) statistical method described in Chapter 4.

5.2 Construct Measures and Variables

The constructs to be represented by a scale within the overarching instrument are: Perceived Positive Leadership Effectiveness (PPLE) Employee Engagement (ENG), Generational Diversity (GD) and Personality (EP). The list of variables, the number of items within each scale or sub-scale, and the descriptor of each variable, are provided in Table 16. All measures, with the exception of GD, were created strictly or loosely from existing instruments and literature.

Table 16. List of Variables

Construct	Variable	No. Items	Scale Used

	Gender	1	Dichotomous (1=M, 2=F)
Employee Engagement (ENG)	Cognitive Engagement (CE)	4	7-Pt Likert
	Emotional Engagement (EE)	4	7-Pt Likert
	Behavioral Engagement (BE)	4	7-Pt Likert
Generational Diversity (GD)	Generational Diversity Degree of Separation (GDDegSep)	1	5 Ordinal Groups
	Generational Diversity Direction (GDDir)	1	3 Ordinal Groups
	Perception of Positive Leadership Effectiveness (PPLE)	22 Items	7-Pt Likert
Employee Personality (EP)	Employee Personality: Conscientiousness (EPC)	4	Continuous 1-100
	Employee Personality: Agreeableness (EPA)	4	Continuous 1-100
	Employee Personality: Neuroticism (EPN)	4	Continuous 1-100
	Employee Personality: Openness to Experience (EPO)	4	Continuous 1-100
	Employee Personality: Extraversion (EPE)	4	Continuous 1-100

IV= Independent Variable; M=Moderating Variable; DV=Dependent Variable

5.3 Data Screening

Prior to the conduct of statistical analysis, data screening was used to identify and correct for all missing, inconsistent and miscoded data.

5.3.1 Missing Values

The first step in data screening is identifying missing values in survey responses that may skew analysis. Some statisticians suggest missing data up to a certain percentage (ex. 75%), may not have a significant impact on analysis (Little, 2002; Little & Schluchter, 1985). In order to identify responses which presented a high percentage of missing values, the researcher screened the data set for cases with missing values of greater than 75%. Out of the 214 responses to the primary survey instrument, 14 cases presented missing values greater than 75%, and were removed from the data set. This left

a sample population of 200 responses. Additionally, 16 respondents had failed to answer one item within the survey, but these missing values were not critical to the GD or Gender constructs, and were retained within the data set.

5.3.2 Removing Outliers

Outliers, are "statistical observations that are markedly different in value from the others of a sample (*Outlier Definition & Meaning - Merriam-Webster*, n.d.)." In consideration of outliers within the data set, the researcher analyzed each variable for standardized score (Z-score). While the cut off for outliers is often 2.5 or 3 standard deviations from the mean, some literature suggests a cut off for small sample sizes to be set at an absolute value of 4 (Hair et al., 1998) or 5 (J. F. Hair et al., 2006). Setting an absolute value of 3, would have resulting in the removal of 49 cases, while setting an absolute value of 4 would have resulted in the removal of 18 cases. Given the extreme nature of responses about one's leader and their engagement, the decision to err on the side of inclusion of a maximum number of cases, was made. After analysis of Z-score values for each of the 200 cases, 10 were found to have standardized scores beyond the decided acceptable range of 5, and were removed from the data set. Removed, were cases 43, 74, 75, 90, 94, 109, 130, 165, 172, and 174. Once the 10 cases were deleted from the data set, Z-scores for each item within the remaining 190 cases were summarized in Table 17.

Table 17. Standardized Z-scores

		Initial Standardized Value (Z-Score)	
Construct / Variable	Item	Lower Bound	Upper Bound
Demographics	Gender	-0.878	1.132

Generational Diversity (GD)	GDDegSep	-1.035	3.335
	GDDir	-1.147	0.948
Positive Perceptions of Leader Effectiveness (PPLE)	PPLEL1	-2.408	1.189
	PPLEL2	-1.962	1.962
	PPLEL3	-2.462	1.246
	PPLEL4	-2.916	1.163
	PPLEL5	-3.625	0.830
	PPLEL6	-2.924	1.274
	PPLEL7	-2.508	1.398
	PPLEL8	-2.599	1.294
	PPLEL9	-2.963	1.156
	PPLEL10	-1.958	1.519
	PPLEL11	-3.083	1.023
	PPLEL12	-2.686	1.166
	PPLEL13	-2.230	1.306
	PPLEL14	-3.150	0.917
	PPLEL15	-3.597	0.812
	PPLEL16	-3.199	1.081
	PPLEL17	-4.042	0.902
	PPLEL18	-2.657	1.532
	PPLEL19	-3.096	1.141
	PPLEL20	-2.913	1.187
	PPLEL21	-3.388	1.103
	PPLEL22	-2.918	1.194
Cognitive Engagement (CE)	CE1	-3.215	1.012
	CE2	-4.156	0.900
	CE3	-4.199	1.033
	CE4	-3.633	1.026
Emotional Engagement (EE)	EE1	-3.813	0.891
	EE2	-3.982	0.883
	EE3	-4.109	0.864
	EE4	-4.030	0.975
Behavioral Engagement (BE)	BE1	-2.172	1.258
	BE2	-2.315	1.144
	BE3	-3.668	1.068
	BE4	-3.515	0.908
Employee Personality (EP): Conscientiousness	EPCy1	-4.418	1.146
	EPCy2	-3.696	1.270
	EPCn1	-3.213	0.994
	EPCn2	-3.942	0.877

Employee Personality (EP): Neuroticism	EPNy1	-1.265	1.837
	EPNy2	-1.170	2.494
	EPNn1	-1.166	3.240
	EPNn2	-1.276	2.513
Employee Personality (EP): Agreeableness	EPAy1	-2.120	1.264
	EPAy2	-3.834	1.111
	EPAn1	-2.148	1.202
	EPAn2	-3.446	0.893
Employee Personality (EP): Openness to Experience	EPOy1	-2.423	1.254
	EPOy2	-1.312	2.657
	EPOn1	-1.358	2.449
	EPOn2	-1.156	4.094
Employee Personality (EP): Extraversion	EPEy1	-1.797	1.463
	EPEy2	-2.498	1.394
	EPEn1	-1.445	1.856
	EPEn2	-1.279	4.428

As depicted in Table 17, the resulting standardized Z-scores following removal of 10 outlier cases, ranged from -4.418 to 4.428. This confirmed the absence of remaining outliers as all standardized values met the condition of being greater than -5 and less than 5.

5.3.3 Assessing Normality of Data

Following the removal of outliers, tests of normality (skewness and kurtosis) were conducted to determine whether the data set was normally distributed. During these tests, the researcher would consider the data set highly skewed if values for skewness were greater than ± 1, and symmetrical if less than ± ½ (Bulmer, 1979). In terms of Kurtosis, higher values indicate a sharper peak, with a normal peak roughly equivalent to 3. (Balanda & MacGillivray, 1988). Table 18, shows evidence of a moderately left-skewed

data set (average skewness -0.70), and kurtosis lower than a normal distribution (average kurtosis 0.90).

Table 18. Tests of Normality

Construct / Variable	Item	Skewness	Kurtosis
Demographics	Gender	0.257	-1.955
Generational Diversity (GD)	GDDegSep	0.662	-0.523
	GDDir	0.068	0.147
Positive Perceptions of Leader Effectiveness (PPLE)	PPLEL1	-0.750	-0.015
	PPLEL2	-0.027	-1.061
	PPLEL3	-0.807	-0.183
	PPLEL4	-0.855	0.355
	PPLEL5	-1.520	2.218
	PPLEL6	-0.902	0.423
	PPLEL7	-0.493	-0.408
	PPLEL8	-0.797	0.045
	PPLEL9	-1.052	0.647
	PPLEL10	-0.414	-0.692
	PPLEL11	-1.368	1.820
	PPLEL12	-1.177	0.982
	PPLEL13	-0.820	-0.119
	PPLEL14	-1.521	2.044
	PPLEL15	-1.960	4.065
	PPLEL16	-1.167	0.808
	PPLEL17	-1.738	3.383
	PPLEL18	-0.198	-0.457
	PPLEL19	-1.169	0.931
	PPLEL20	-0.977	0.652
	PPLEL21	-1.342	1.900
	PPLEL22	-1.149	1.023
Cognitive Engagement (CE)	CE1	-1.656	3.633
	CE2	-1.585	3.835
	CE3	-1.473	3.279
	CE4	-1.363	3.126
Emotional Engagement (EE)	EE1	-0.769	-0.459
	EE2	-0.891	-0.221
	EE3	-1.314	2.151
	EE4	-1.409	1.764
Behavioral Engagement (BE)	BE1	-1.179	1.233
	BE2	-1.614	3.535

	BE3	-1.271	1.954
	BE4	-1.259	1.590
Employee Personality (EP): Conscientiousness	EPCy1	-1.519	2.766
	EPCy2	-1.119	1.574
	EPCn1	-1.241	0.724
	EPCn2	-1.760	3.100
Employee Personality (EP): Neuroticism	EPNy1	0.332	-1.204
	EPNy2	0.747	-0.304
	EPNn1	1.415	1.561
	EPNn2	0.916	0.145
Employee Personality (EP): Agreeableness	EPAy1	-0.673	-0.689
	EPAy2	-1.226	1.646
	EPAn1	-0.489	-0.977
	EPAn2	-1.411	1.591
Employee Personality (EP): Openness to Experience	EPOy1	-0.877	-0.079
	EPOy2	0.671	-0.511
	EPOn1	0.695	-0.312
	EPOn2	1.370	2.171
Employee Personality (EP): Extraversion	EPEy1	-0.126	-1.256
	EPEy2	-0.469	-0.464
	EPEn1	0.332	-1.163
	EPEn2	1.037	1.797

Values for skewness ranged between -1.960 and 1.415. Values for kurtosis ranged between -1.954 and 4.065.

5.4 SEM Phase 1: Confirmatory Factor Analysis

As described in Chapter 4, in order to operationalize each of the primary constructs within the research model, the researcher leveraged a combination or portion of previously validated instruments, several of which required significant adaptation to remain suitable for this study. The constructs represented within the overarching instruments were: Perceived Positive Leadership Effectiveness (PPLE) Employee

Engagement (ENG), Generational Diversity (GD) and Personality (EP). In order to operationalize ENG, the researcher leveraged Shuck et al.'s (2017) 12 item Employee Engagement Scale (EES). The EES consisted of three sub-factors (cognitive, emotional and behavioral) of engagement within one higher-order factor of employee engagement. In order to operationalize the PPLE construct, the researcher leveraged a simplified extraction of the constructs and sub-constructs measured within the Campbell's Leadership Index (CLI)(D. Campbell, 1991). Within the CLI, the leadership scale is measured with five sub-scales, but for the purposes of this research study, these sub-scales were treated as a single 22-item scale. In order to operationalize the Generational Diversity construct, identification of both employee generation and supervisor generation were required. Finally, in operationalizing employee personality, the researcher leveraged the "Big 5" personality traits, and drew a simplified version the positive and negative descriptors of each trait in a 20 item scale which contained 4-items in each of its five subscales.

Because of the confirmatory nature of this research, whereby elements of established scales were modified and aggregated to create a single instrument, Confirmatory Factor Analysis (CFA) was required within the first step of SEM. During CFA, the researcher assessed reliability and validity through the use of Cronbach alpha, Composite Reliability (CR) and Average Variance Extracted (AVE) statistics (Fabrigar et al., 1999; Fornell & Larcker, 1981). Two research models were created to support CFA, along with a third ancillary model generated to deal with the second order construct of ENG, found in Research Model 1: a) Research Model 1 to evaluate moderating effects within H2a, H2b, H3a-H3e, b) Research Model 2 to evaluate causal effects of PPLE on

each ENG sub dimension in H1a, H1b, and H1c; and c) A third ancillary model to evaluate CFA for the second-order construct ENG.

The following sections provide results from CFA conducted on each of the three CFA models within the study: Engagement Model, CFA for Research Model 1 and CFA for Research Model 2. The Engagement Model is required because the Engagement Construct (ENG) in Research Model 1 is a second order construct, with three sub-dimensions acting as the latent constructs within the survey instrument. While the sub-dimensions of ENG (CE, EE, BE) are evaluated independently in Research Model 2, this preliminary step allows the researcher to proceed with overall CFA of Research Model 1, inclusive of second order constructs. This analysis was conducted using Smart-PLS 3.0 (Ringle et al., 2015).

5.4.1 Employee Engagement (ENG) Model CFA

The Engagement Model for CFA, was used to measure the three first-order constructs of Cognitive Engagement (CE), Emotional Engagement (EE) and Behavioral Engagement (BE), as indications of overall Employee Engagement (ENG). CFA for ENG is depicted in Figure 7, with associated factor loading for all 12 items within the engagement sub-scales, as well as AVE within each construct.

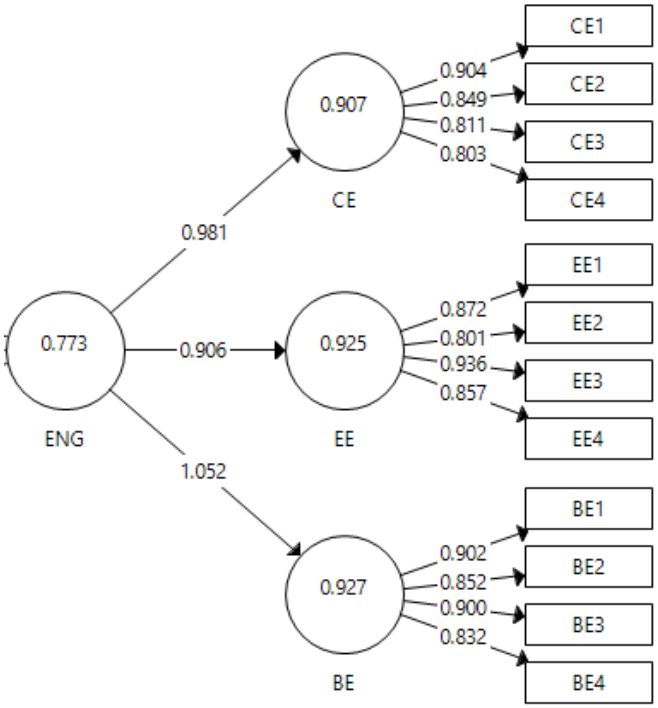

Figure 8. CFA Model for Employee Engagement (ENG)

5.4.1.1 Employee Engagement (ENG) Reliability and Convergent Validity

Table 19, shows the results of CFA for the ENG Measurement Model.

Table 19. CFA for Employee Engagement

Construct	Item	Factor Loading	Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach Alpha
Cognitive Engagement (CE)	CE1	0.904	0.907	0.907	0.710
	CE2	0.849			
	CE3	0.811			
	CE4	0.803			
Emotional Engagement (EE)	EE1	0.872	0.925	0.924	0.753
	EE2	0.801			
	EE3	0.936			
	EE4	0.857			
Behavioral Engagement (BE)	BE1	0.902	0.927	0.927	0.761

BE2	0.852
BE3	0.900
BE4	0.832

As depicted in Table 19, factor loading for each of the 12 items ranged from 0.803 to 0.936, satisfactorily exceeding criteria of loadings greater than 0.5.

As discussed in Chapter 4, CFA then required AVE, CR and Cronbach Alpha to be evaluated as tests of reliability. As depicted in Table 19, AVE values were 0.907 (CE), 0.925 (EE) and 0.927 (BE), all of which were greater than the target of 0.5. These satisfactory values for AVE reflect an acceptable level of variance accounted for by each of the three latent constructs.

Following measurement of factor loading and AVE, Composite Reliability (CR) was measured to evaluate the internal consistency of the construct, or the degree to which all items within the construct measure the same thing. CR values equal to, or greater than 0.6, would indicate adequate internal consistency (Fornell & Larcker, 1981). CR values were 0.907 (CE), 0.924 (EE) and 0.927. Each were well above the target of 0.6, thus confirming the reliability of each of the constructs.

Once measures of construct validity and construct reliability were assessed, internal reliability, or the extent to which a measure is free of error, was analyzed. Of central importance to internal reliability, was this scale's Cronbach alpha. Higher Cronbach alpha statistics are considered reflective of higher reliability. This statistic ranges from 0 to 1, and is considered acceptable when equal to, or greater than, 0.6 (Nunnally, 1994). As depicted in Table 19, Cronbach Alpha values for each of the

constructs were 0.710 (CE), 0.753 (EE) and 0.761 (BE). Each of these values exceeded the 0.6 target, indicating internal reliability of the scale.

5.4.1.2 Employee Engagement (ENG) Model Discriminant Validity

Following complete tests of internal reliability, the researcher evaluated discriminant validity, or the evaluation of whether constructs which are intended to be unrelated, are in fact, unrelated. Using the Fornell-Larcker Criterion, when correlations do not exceed 0.85, discriminant validity can be measured by comparing the square root of AVE for each relevant construct, to the correlation between them (Fornell & Larcker, 1981). As depicted in Table 20, this comparison resulted in a smaller correlation than square root of AVE (bold diagonal), supporting assumptions of adequate discriminant validity within the scale.

Table 20. ENG Discriminant Validity

	BE	CE	EE
Behavioral Engagement (BE)	0.872		
Cognitive Engagement (CE)	0.712	0.843	
Emotional Engagement (EE)	0.601	0.441	0.868

5.4.2 CFA for Research Model 1

Following CFA for ENG, the researcher conducted CFA on the overarching research model with its first order constructs. The initial measurement model is depicted in Appendix B, with associated factor loading for all items but the 12 ENG items, which are replaced by their latent constructs (CE, EE, BE).

5.4.2.1 Research Model 1 Reliability and Convergent Validity

Following the initial PLS run within Smart-PLS, eight items were subject to loading below the established cutoff of 0.5. These items were PPLE1, PPLE8, PPLE10, PPLE12, EPOy1, EPOn1, EPOn2 and EPEy2. After removing each of the items, the second PLS run resulted in three remaining items whose loading was below 0.5. These items, EPEn2, PPLE18 and PPLE20, were removed. Following the third PLS Algorithm run, one additional item fell below the loading cutoff of 0.5. This item, PPLE2, was removed. Following removal of all 12 of the aforementioned items with loading below 0.5, all factor loadings were satisfactory. Loading ranged from 0.511 to 0.901. It is important to note that the removal of three out of four items within the "Employee Personality: Openness" construct, no longer allowed the construct to remain latent. The researcher decided to keep the single item construct, given its importance to assessment of personality in follow-on moderating hypotheses. Table 21, shows the results of CFA conducted for Research Model 1, following the removal of the aforementioned items.

Table 21. Results of CFA for Research Model 1

Construct	Item	Factor Loading	Average Variance Extracted (AVE)	Composite Reliability (CR)	Cronbach Alpha
Demographics	Gender	1.000	1.000	1.000	1.000
Generational Diversity (GD)	GDDegSep	1.000	1.000	1.000	1.000
	GDDir	1.000	1.000	1.000	1.000
Positive Perceptions of Leader Effectiveness (PPLE)	~~PPLEL1~~		0.507	0.939	0.930
	~~PPLEL2~~				
	PPLEL3	0.768			
	PPLEL4	0.673			

	PPLEL5	0.622			
	PPLEL6	0.691			
	PPLEL7	0.748			
	~~PPLEL8~~				
	PPLEL9	0.721			
	~~PPLEL10~~				
	PPLEL11	0.759			
	~~PPLEL12~~				
	PPLEL13	0.636			
	PPLEL14	0.769			
	PPLEL15	0.811			
	PPLEL16	0.528			
	PPLEL17	0.727			
	~~PPLEL18~~				
	PPLEL19	0.642			
	~~PPLEL20~~				
	PPLEL21	0.781			
	PPLEL22	0.753			
Employee Engagement (ENG)	CE	0.832	0.690	0.870	0.773
	EE	0.761			
	BE	0.895			
EP Conscientiousness	EPCy1	0.511	0.528	0.811	0.739
	EPCy2	0.768			
	EPCn1	0.901			
	EPCn2	0.671			
EP Neuroticism	EPNy1	0.801	0.617	0.865	0.796
	EPNy2	0.847			
	EPNn1	0.735			
	EPNn2	0.754			
EP Agreeableness	EPAy1	0.618	0.508	0.801	0.703
	EPAy2	0.783			
	EPAn1	0.586			
	EPAn2	0.832			
EP Openness to Experience	~~EPOy1~~		1.000	1.000	1.000
	EPOy2	0.876			
	~~EPOn1~~				
	~~EPOn2~~				
EP Extraversion	EPEy1	0.829	0.771	0.871	0.713
	~~EPEy2~~				

	EPEn1	0.925
	~~EPEn2~~	

As depicted in Table 21, values for AVE all remained above the cutoff of 0.5, ranging from 0.507 to 0.771. Values for CR exceeded limits of 0.6 for all constructs, ranging from 0.801 to 0.939. Finally, Cronbach Alpha values exceeded the desired threshold of 0.600, ranging from 0.713 to 0.930.

5.4.2.2 RM1 Discriminant Validity

Following complete tests of internal reliability, the researcher evaluated discriminant validity. Using the Fornell-Larcker Criterion, when correlations do not exceed 0.85, discriminant validity can be measured by comparing the square root of AVE for each relevant construct, to the correlation between them (Fornell & Larcker, 1981). As depicted in Table 22, this comparison resulted in a smaller correlation than square root of AVE (bold diagonal), supporting assumptions of adequate discriminant validity within the scale.

Table 22. Model 1 Discriminant Validity

	ENG	EPA	EPC	EPE	EPN	EPO	GDDeg Sep	GDdir	Gend.	PPLE
ENG	0.831									
EPA	0.473	0.713								
EPC	0.497	0.594	0.727							
EPE	0.343	0.354	0.191	0.878						
EPN	-0.393	-0.555	-0.480	-0.595	0.785					
EPO	0.175	0.007	-0.114	0.468	-0.259	1.000				
GDDeg Sep	-0.052	-0.124	-0.177	-0.041	0.131	-0.045	1.000			
GDdir	-0.013	-0.030	-0.089	0.004	0.020	0.017	0.849	1.000		
Gender	0.067	0.186	0.151	-0.021	0.118	0.001	0.047	0.057	1.000	
PPLE	0.426	0.246	0.252	0.222	-0.208	0.108	-0.039	-0.076	-0.021	0.712

Based on the aforementioned analysis pertaining to the CFA of Research Model 1, the researcher concluded this model to be both valid and reliable. Figure 8, depicts the resulting model with loadings depicted on each path and Cronbach Alpha values depicted within each construct.

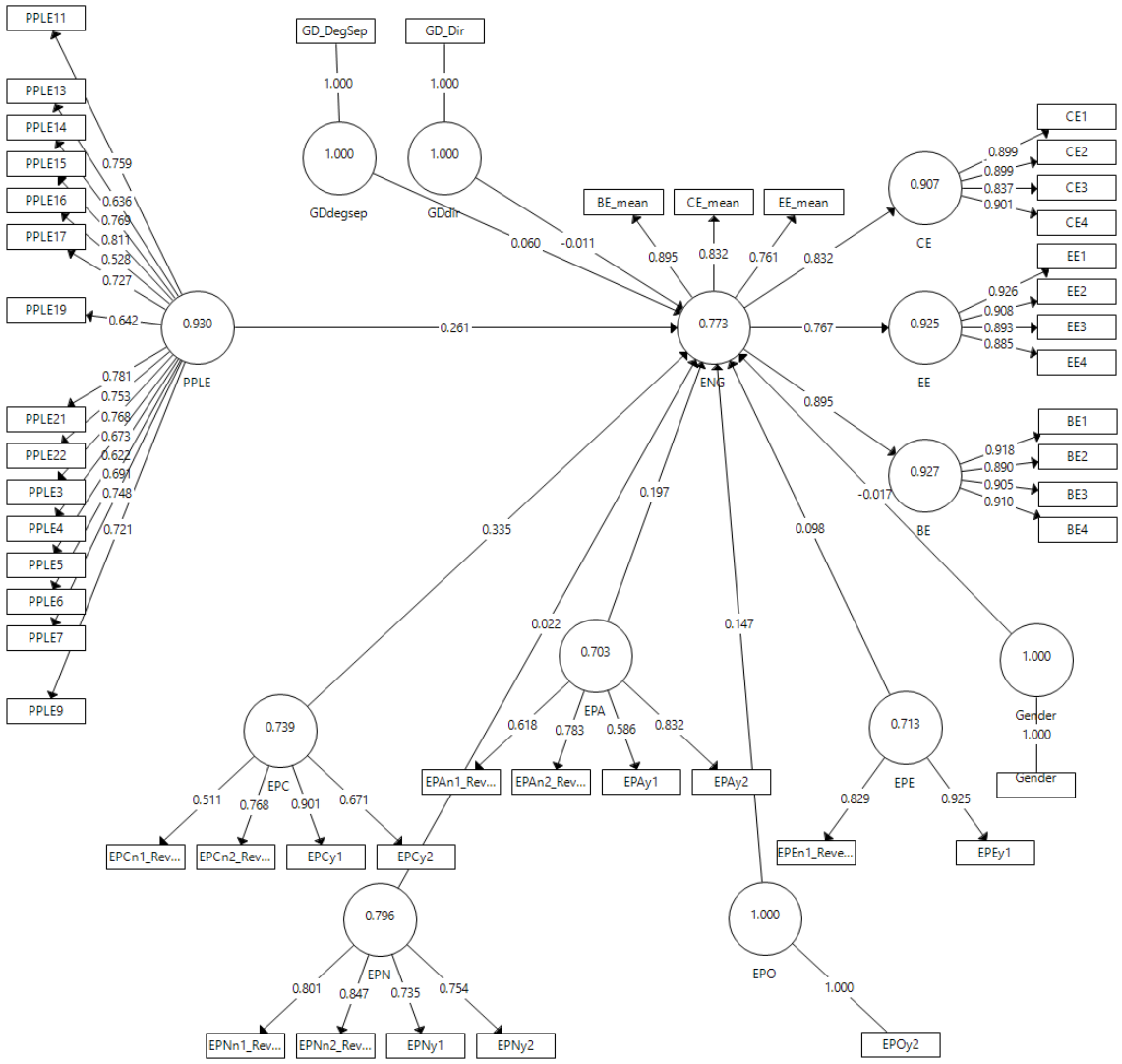

Figure 9. CFA for Research Model 1 (without Deleted Items)

5.4.3 CFA for Research Model 2

Following confirmation of both reliability and validity of both ENG and Research Model 1, the researcher conducted CFA for Research Model 2. This model includes the

constructs of Perceived Positive Leadership Effectiveness (PPLE), Cognitive Engagement (CE), Emotional Engagement (EE), Behavioral Engagement (BE) and the control variable, Gender. Figure 9, depicts this research model with loadings depicted on each items path and Cronbach Alpha depicted within each latent construct.

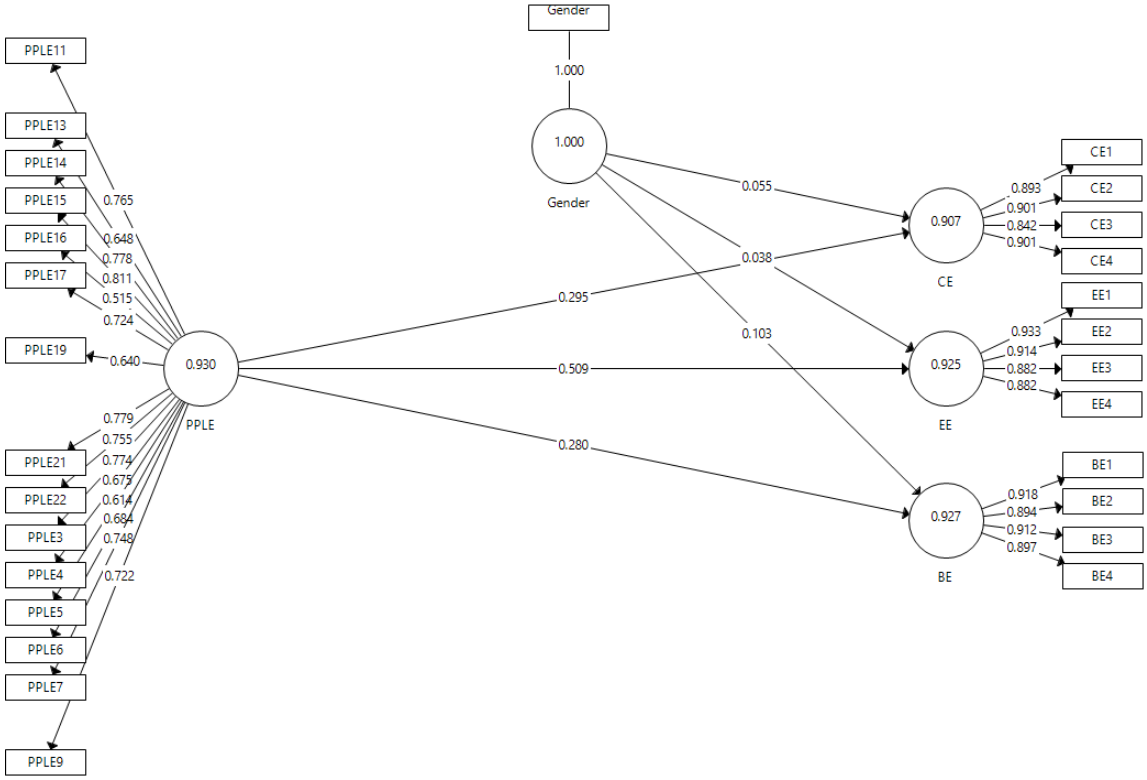

Figure 10. CFA for Research Model 2 (without Deleted Items)

5.4.3.1 RM2 Reliability and Convergent Validity

Reliability and convergent validity were established in sections 5.4.1 and 5.4.2 above. These tests were not be duplicated.

5.4.3.2 RM2 Discriminant Validity

Following confirmation of reliability and convergent validity, the researcher assessed discriminant validity of Research Model 2. Using the Fornell-Larcker Criterion, when correlations do not exceed 0.85, discriminant validity was measured by comparing

the square root of AVE for each relevant construct, to the correlation between them (Fornell & Larcker, 1981). As depicted in Table 23, this comparison resulted in a smaller correlation than square root of AVE (bold diagonal), supporting assumptions of adequate discriminant validity within the scale.

Table 23. Model 2 Discriminant Validity

	BE	CE	EE	Gender	PPLE
Behavioral Engagement (BE)	0.905				
Cognitive Engagement (CE)	0.654	0.885			
Emotional Engagement (EE)	0.558	0.399	0.903		
Gender	0.096	0.048	0.025	1.000	
Perceived Positive Leadership Effectiveness (PPLE)	0.278	0.294	0.508	-0.025	0.713

Based on the aforementioned analysis pertaining to the CFA of Research Model 2, the researcher concluded this model to be both valid and reliable.

5.5 Descriptive Statistics

Following confirmation of three valid and reliable research models, the researcher evaluated the data set by focusing on descriptive statistics of the sample population. Table 24, provides descriptive with specific focus on gender and generational diversity.

The sample population whose data was retained following data screening, included 190 participants who met full time employment criteria within the United States. Each of these 190 participants were solicited through a compensated survey request using Amazon Mturk. As seen in Table 24, of the 190 participants, 107 (56.3%) were male and 83 (43.7%) were female. The sample consisted of no participants from Generation Z, 97 (51.1%) Millennials, 79 (41.6%) Generation X, 14 (17.4%) Baby Boomer, and no Mature Generation participants. Their corresponding leaders consisted of 1 (0.5%) Generation Z, 31 (16.3%) Millennial, 110 (57.9%) Generation X, 45 (23.7%) Baby Boomer and 3

(1.6%) Mature. These results show a central tendency towards the Millennial Generation in subordinates and Generation X in supervisors.

In determining whether GD was present within each of the work relationships, with specific consideration for generations of separation, 78 (41.4%) relationships were generationally similar (absence of GD), 91 (47.9%) relationships were separated by one generation, 19 (10.0%) relationships were separated by two generations and 2 (1.1%) relationships were separated by three generations.

In determining whether GD was present within each of the work relationships, with specific consideration for direction of diversity, 78 (41.4%) relationships were generationally similar (absence of GD), 16 (8.4%) relationships were characterized by a supervisor who was of a later (younger) generation than their employee counterpart, and 96 (50.5%) relationships were characterized by a supervisor who was of an earlier (older) generation than their employee counterpart. If representative of the population, GD is more common than not in the workplace, and traditional relationships of elder supervisors remain the norm with respect to direction. The lack of participants in the cohort characterized by an elder supervisor, could have an adverse impact on the significance of results.

Table 24. Descriptive Statistics (Gender and GD)

Group	Frequency	Percentage (%)
Gender		
Male	107	56.3%
Female	83	43.7%
Subordinate's Generation		
Generation Z (Born 2001-2020)	0	0.0%
Millennial/ Y Generation (Born 1981-2000)	97	51.1%

Generation X (Born 1965-1980)	79	41.6%
Baby Boomer Generation (Born 1946-1964)	14	7.4%
Mature/ Silent Generation (Born 1927-1945)	0	0.0%
Supervisor's Generation		
Generation Z (Born 2001-2020)	1	0.5%
Millennial/ Y Generation (Born 1981-2000)	31	16.3%
Generation X (Born 1965-1980)	110	57.9%
Baby Boomer Generation (Born 1946-1964)	45	23.7%
Mature/ Silent Generation (Born 1927-1945)	3	1.6%
Generational Diversity (GD) Degrees of Separation		
No Generational Diversity Present	78	41.1%
1 Generation of Separation	91	47.9%
2 Generations of Separation	19	10.0%
3 Generations of Separation	2	1.1%
Generational Diversity (GD) Direction of Relationship		
0, Employee Generation = Supervisor	78	41.1%
1, Employee Generation > Supervisor	16	8.4%
2, Employee Generation < Supervisor	96	50.5%

Table 25, provides descriptive statistics pertaining to the sample, utilizing mean construct scores to generate an overarching mean, standard deviation, minimum and maximum for each construct.

Table 25. Descriptive Statistics (Mean Construct)

Construct/ Variable	Scale	Mean	Standard Deviation	Min	Max
Perception of Positive Leadership Effectiveness (PPLE)	7-Point Likert	5.227	0.963	2.2	6.8
Employee Personality: Conscientiousness (EPC)	0-100 Continuous	79.047	14.906	7.3	100.0
Employee Personality: Agreeableness (EPA)	0-100 Continuous	74.435	16.490	22.3	100.0
Employee Personality: Neuroticism (EPN)	0-100 Continuous	33.235	21.380	0.0	98.5
Employee Personality: Openness to Experience (EPO)	0-100 Continuous	38.582	15.945	0.8	73.8

Employee Personality: Extraversion (EPE)	0-100 Continuous	45.554	17.828	2.0	80.0
Cognitive Engagement (CE)	7-Point Likert	6.232	0.766	2.8	7.0
Emotional Engagement (EE)	7-Point Likert	5.329	1.383	1.0	7.0
Behavioral Engagement (BE)	7-Point Likert	5.763	1.141	1.0	7.0

5.6 SEM Phase 2: Structural Models

Following the confirmation of reliability and validity of each of the three CFA models, the second part of SEM required the researcher to generate and evaluate structural models depicting the hypothesized relationships between each construct. As described in section 4.9.2, these structural models then facilitate the statistical evaluation of the model's ability to explain how much change in the dependent variables can be accounted for by the independent variables (R^2), as well as evaluate the predicative relevance of the model (Q^2d)(Henseler et al., 2009). As the researcher evaluated each structural model, target R^2 values were established based on a combination of Falk & Miller's (1992) suggestion for R^2 values, and S. Cohen's (1988) characterization for endogenous latent variable assessment. Falk and Miller, suggested 0.10, while S. Cohen suggested R^2 values of 0.26 as substantial, 0.13 as moderate and 0.02 as weak (Cohen, 1988; Falk & Miller, 1992). Predictive relevance will be measured against a target cutoff of 0.10, with further description of R^2 to describe each model (Henseler et al., 2009; Henseler & Sarstedt, 2013).

Three structural models were created for the analysis of H1 through H3. Two of the three structural models facilitated the evaluation of Research Model 1 (Figure 4), while the third structural model facilitated the evaluation of Research Model 2 (Figure 5).

Smart-PLS 3.0 was used for this analysis, specifically focused on the PLS Algorithm (P-Value), Bootstrapping (R^2) and Blindfolding (Q^2d) capabilities within the software.

5.6.1 Structural Models for Research Model 1

Research Model 1, pictured in Figure 4, depicts causal relationships hypothesized in H1, as well as moderating hypotheses in H2a, H2b and H3a-H3e. Structural Model 1, in Figure 10, was created to address H1. Structural Model 2, in Figure 11, was created to measure H2a, H2b and H3a-H3e. All hypotheses are depicted in Table 26.

Table 26 . Summary of H1, H2 and H3

Code	Description	Depiction
Causal Effect Hypotheses		
$H1^+$	As an employee's Positive Perception of Leader Effectiveness (PPLE) increases, the Employee's Engagement (ENG) will also increase.	PPLE>ENG
$H1a^+$	As an employee's Positive Perception of Leader Effectiveness (PPLE) increases, the employee's Cognitive Engagement (CE) will also increase.	PPLE>CE
$H1b^+$	As an employee's Positive Perception of Leader Effectiveness (PPLE) increases, the employee's Emotional Engagement (EE) will also increase.	PPLE>EE
$H1c^+$	As an employee's Positive Perception of Leader Effectiveness (PPLE) increases, the employee's Behavioral Engagement (BE) will also increase.	PPLE>BE
Moderating Effect Hypotheses		
$H2a^+$	Generational Diversity (GD) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when Generational Diversity-Separation (GDsep) is more severe.	(GDsep* PPLE)>ENG
$H2b^+$	Generational Diversity-Direction (GDdir) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when the employee is older than their supervisor.	(GDdir* PPLE)>ENG

H3a^{+}	Employee Conscientiousness (EPc) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is more conscientious.	(EPc* PPLE)>ENG
H3b^{-}	Employee Agreeableness (EPa) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is less agreeable.	(EPa* PPLE)>ENG
H3c^{+}	Employee Neuroticism (EPn) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is more neurotic.	(EPn* PPLE)>ENG
H3d^{+}	Employee Openness to Experience (EPo) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is more open to experience.	(EPo* PPLE)>ENG
H3e^{+}	Employee Extraversion (EPe) moderates the relationship between employees' Positive Perception of Leader Effectiveness (PPLE) and Employee's Engagement (ENG), such that the relationship is stronger when an employee is more of an extravert.	(EPe* PPLE)>ENG

5.6.1.1 Structural Model 1: Causal Effects for H1

As depicted in Figure 11, Structural Model 1 was created to evaluate the causal effects hypothesized in H1, specifically the existence of a causal effect of Perceived Positive Leadership Effectiveness on Employee Engagement (ENG). The model generated in Smart-PLS to test Structural Model 1, is depicted in Appendix C.

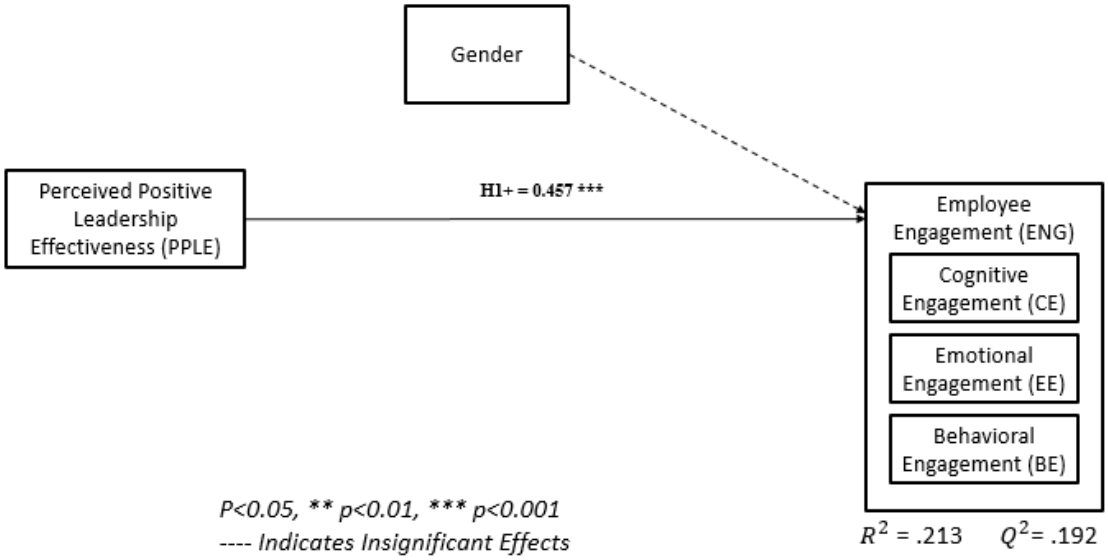

Figure 11. Structural Model 1 (Causal Effects of H1)

Following complete PLS, Bootstrapping and Blindfolding techniques, Structural Model 1 was found to have value for R^2 of 0.213 for the dependent variable, Employee Engagement. Furthermore, an R^2 of 0.213 suggest 21.3 percent of variance in Employee Engagement (ENG) can be explained by Perceived Positive Leadership Effectiveness (PPLE) and Gender. This value is considered acceptable, and falls above the moderate level of 0.13 (Cohen, 1988). The Q^2 statistic was found to be 0.192, which is greater than zero and indicates predictive relevance of the model. Overall, Structural Model 1 is acceptable and demonstrates predictive relevance.

Table 27, shows the results of the hypothesized causal relationship of H1.

Table 27. Results of Hypothesized Causal Effect in Structural Model 1

Path	Path Coefficient	Standard Error	T-Value	P-Value	Result
PPLE>ENG	0.457	0.046	9.311	.000	H1 Supported
Gender	0.073	0.058	1.247	0.213	

As shown in Table 27, the relationship between PPLE and ENG is characterized by a t-value of 9.311, a p-value of 0.000 and a path coefficient of 0.457. Interpreted, this means the probability of a t-value as large as 9.311 is 0.000, and for every increase of 1 standard deviation in PPLE, ENG will increase by 0.457. H1, which hypothesized the causal relationship between PPLE and ENG to be both significant and positive, is supported at the $p<0.001$ Level.

5.6.1.2 Structural Model 2: Moderating Effects for H2a, H2b and H3a-H3e

In this section, Structural Model 2, was utilized to assess hypothesized relationships of moderation within H2 and H3. Table 28, describes H2a and H2b, which propose moderating effects of Generational Diversity (GD) on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG). Table 28, also lists H3a-H3e, which propose varying moderating effects of Employee Personality (EP) on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG). The Smart-PLS model generated to test these hypotheses is provided in Appendix D, while Structural Model 2 is depicted in Figure 12.

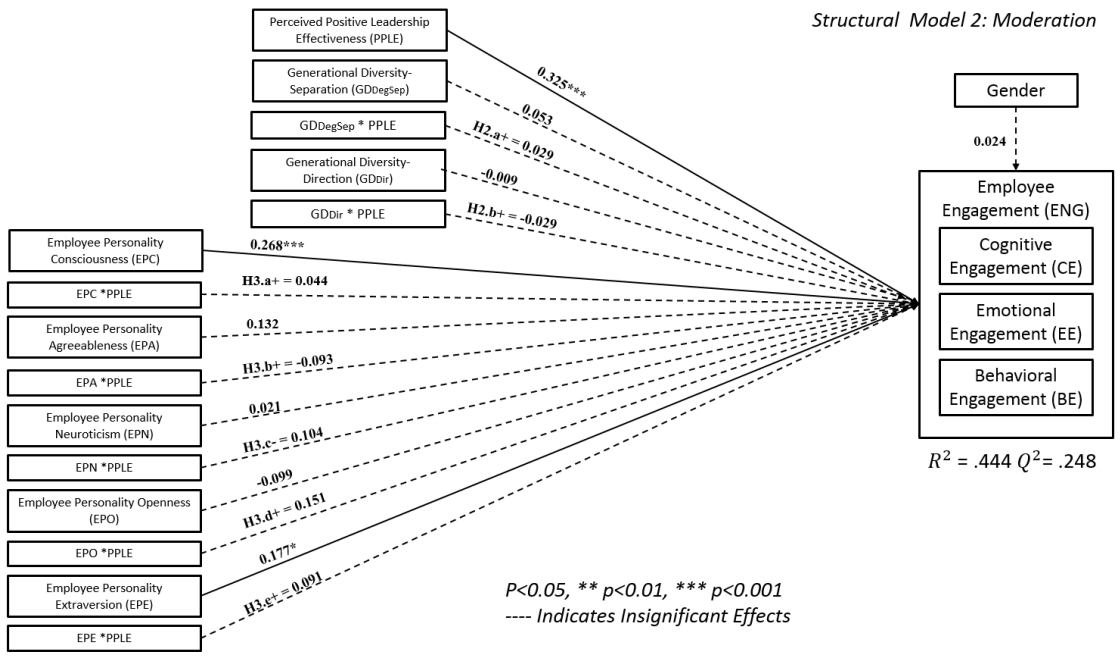

Figure 12. Structural Model 2 (Moderating Effects of H2a, H2b, H3a-H3e)

Following complete PLS, Bootstrapping and Blindfolding techniques, Structural Model 2 was found to have value for R^2 of 0.444 for the dependent variable, Employee Engagement. Furthermore, an R^2 of 0.444 suggest 44.4 percent of variance in Employee Engagement (ENG) can be explained by Perceived Positive Leadership Effectiveness (PPLE), Generational Diversity (GD) and Gender. This value is considered acceptable, and falls above the moderate level of 0.13 (Cohen, 1988). The Q^2d statistic was found to be 0.248, which is greater than zero and indicates predictive relevance of the model. Overall, Structural Model 2 is acceptable and demonstrates predictive relevance.

Table 28, shows the results of the hypothesized moderating relationships, depicted in Figure 11, above.

Table 28. Results of Hypothesized Moderating Effects in Structural Model 2

Path	Path Coefficient	Standard Error	T-Value	P-Value	Result
(GDsep* PPLE)>ENG	0.029	0.172	0.168	0.866	H2a Rejected

(GDdir* PPLE)>ENG	-0.029	0.165	0.174	0.862	H2b Rejected
(EPc* PPLE)>ENG	0.044	0.126	0.347	0.728	H3a Rejected
(EPa* PPLE)>ENG	-0.093	0.13	0.719	0.472	H3b Rejected
(EPn* PPLE)>ENG	0.104	0.095	1.09	0.276	H3c Rejected
(EPo* PPLE)>ENG	0.151	0.128	1.175	0.240	H3d Rejected
(EPe* PPLE)>ENG	0.091	0.085	1.073	0.283	H3e Rejected
(GDsep>ENG	0.053	0.118	0.452	0.651	
(GDdir>ENG	-0.009	0.111	0.082	0.934	
EPc>ENG	0.268	0.082	3.266	0.001***	
EPa>ENG	0.132	0.104	1.261	0.208	
EPn>ENG	0.021	0.098	0.217	0.829	
EPo>ENG	-0.099	0.109	0.91	0.363	
EPe>ENG	0.177	0.074	2.407	0.016*	
PPLE>ENG	0.325	0.075	4.308	0.000***	
Gender>ENG	0.024	0.061	0.397	0.691	

P<0.05, ** p<0.01, *** p<0.001

5.6.1.2.1 H2a+ : GD-Degrees of Separation positively moderates the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG)

As shown in Table 28, the moderation of GD-Degrees of Separation on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG), was characterized by a t-value of 0.168, a p-value of 0.866 and a path coefficient of 0.029. This hypothesized relationship was not statistically significant (p-value > 0.05), resulting in the rejection of H2a. GD-Degrees of Separation does not moderate the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG).

5.6.1.2.2 H2b+ : GD-Direction positively moderates the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG)

As shown in Table 28, the moderation of GD-Direction on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG), was characterized by a t-value of 0.174, a p-value of 0.862 and a path coefficient

of -0.029. This hypothesized relationship was not statistically significant (p-value > 0.05), resulting in the rejection of H2b. GD-Direction does not moderate the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG).

5.6.1.2.3 H3a+ : Employee Personality- Conscientiousness (EPc) positively moderates the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG)

As shown in Table 28, the moderation of Employee Personality- Conscientiousness (EPc) on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG), was characterized by a t-value of 0.347, a p-value of 0.728 and a path coefficient of 0.044. This hypothesized relationship was not statistically significant (p-value > 0.05), resulting in the rejection of H3a. Employee Personality- Conscientiousness (EPc) does not moderate the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG).

5.6.1.2.4 H3b- : Employee Personality- Agreeableness (EPa) negatively moderates the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG)

As shown in Table 28, the moderation of Employee Personality- Agreeableness (EPa) on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG), was characterized by a t-value of 0.719, a p-value of 0.472 and a path coefficient of -0.093. This hypothesized relationship was not statistically significant (p-value > 0.05), resulting in the rejection of H3b. Employee Personality- Agreeableness (EPa) does not moderate the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG).

5.6.1.2.5 H3c+ : Employee Personality- Neuroticism (EPn) positively moderates the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG)

As shown in table 28, the moderation of Employee Personality- Neuroticism (EPn) on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG), was characterized by a t-value of 1.090, a p-value of 0.276 and a path coefficient of 0.104. This hypothesized relationship was not statistically significant (p-value > 0.05), resulting in the rejection of H3c. Employee Personality-Neuroticism (EPn) does not moderate the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG).

5.6.1.2.6 H3d+ : Employee Personality- Openness (EPo) positively moderates the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG)

As shown in Table 28, the moderation of Employee Personality- Openness (EPo) on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG), was characterized by a t-value of 1.175, a p-value of 0.240 and a path coefficient of 0.151. This hypothesized relationship was not statistically significant (p-value > 0.05), resulting in the rejection of H3d. Employee Personality-Openness (EPo) does not moderate the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG).

5.6.1.2.7 H3e+ : Employee Personality- Extraversion (EPe) positively moderates the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG)

As shown in Table 28, the moderation of Employee Personality- Extraversion (EPe) on the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG), was characterized by a t-value of 1.073, a p-value of

0.283 and a path coefficient of 0.091. This hypothesized relationship was not statistically significant (p-value > 0.05), resulting in the rejection of H3e. Employee Personality-Extraversion (EPe) does not moderate the relationship between Perceived Positive Leadership Effectiveness (PPLE) and Employee Engagement (ENG).

5.6.2 Structural Model 3 for Research Model 2

Research Model 2, illustrated in Figure 5, depicts causal relationships hypothesized in H1a, H1b and H1c (Table 5-11). Structural Model 3, was utilized to assess hypothesized causal effects of Perceived Positive Leadership Effectiveness (PPLE) on each of the sub-dimensions of Employee Engagement (EE), including Cognitive Engagement (CE), Emotional Engagement (EE) and Behavioral Engagement (BE). The Smart-PLS model generated to test these hypotheses is provided in Appendix E, while Structural Model 3 is depicted in Figure 13.

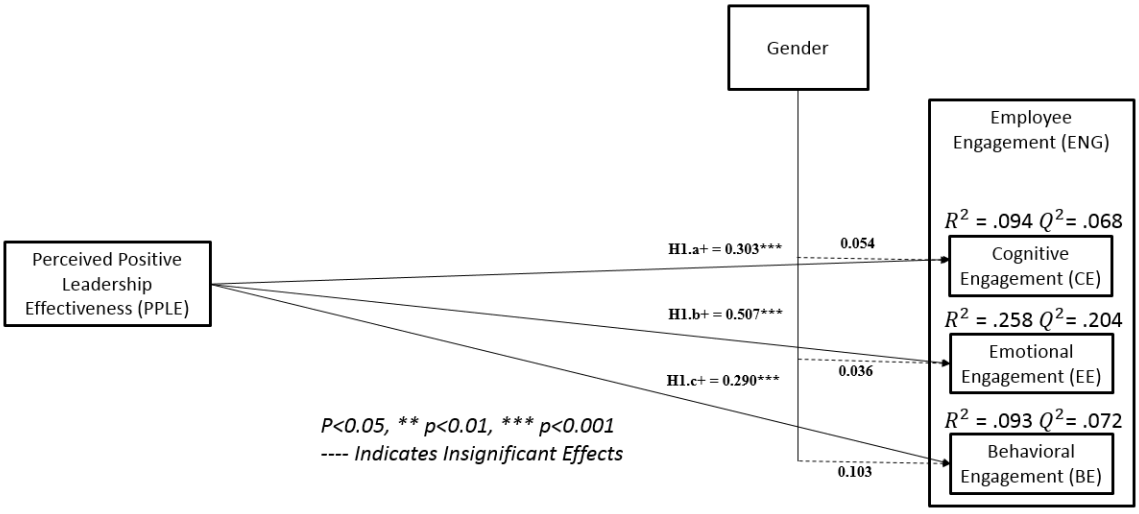

Figure 13. Structural Model 3 (Causal Effects of H1a, H1b and H1c)

Following complete PLS, Bootstrapping and Blindfolding techniques, Structural Model 3 was found to have the following value for R^2: 0.094 for the dependent variable

Cognitive Engagement (CE), 0.258 for the dependent variable, Emotional Engagement (EE), and 0.093 for the dependent variable Behavioral Engagement (BE). The R^2 values for CE and BE are considered weak, while the R^2 for EE would be considered Strong (Cohen, 1988). The Q^2d statistics for the model were as follows: 0.068 for the dependent variable Cognitive Engagement (CE), 0.204 for the dependent variable, Emotional Engagement (EE), and 0.072 for the dependent variable Behavioral Engagement (BE). All Q^2d statistics were greater than zero, indicating predictive relevance of the model. Overall, Structural Model 3 is weak but acceptable (R^2), but demonstrates predictive relevance.

Table 29, shows the results of the hypothesized causal relationship depicted in Figure 13.

Table 29. Results of Hypothesized Causal Effects in Structural Model 3

Path	Path Coefficient	Standard Error	T-Value	P-Value	Result
PPLE>CE	0.303	0.073	4.151	0.000***	H1a Supported
PPLE>EE	0.507	0.051	9.928	0.000***	H1b Supported
PPLE>BE	0.29	0.061	4.773	0.000***	H1c Supported
Gender>CE	0.054	0.072	0.752	0.452	
Gender>EE	0.036	0.061	0.593	0.554	
Gender>BE	0.103	0.063	1.63	0.104	

P<0.05, ** p<0.01, *** p<0.001

5.6.2.1 H1a+ : Perceived Positive Leadership Effectiveness (PPLE) has a positive effect on Cognitive Engagement (CE)

As shown in Table 29, the causal relationship between Perceived Positive Leadership Effectiveness (PPLE) and Cognitive Engagement (CE), was characterized by a t-value of 4.151, a p-value of 0.000 and a path coefficient of 0.303. Interpreted, this means the probability of a t-value as large as 4.151 is 0.000, and for every increase of 1 standard deviation in PPLE, CE will increase by 0.303. H1a, which hypothesized the causal relationship between PPLE and CE to be both significant and positive, is supported at the $p<0.001$ Level.

5.6.2.2 H1b+ : Perceived Positive Leadership Effectiveness (PPLE) has a positive effect on Emotional Engagement (EE)

As shown in Table 29, the causal relationship between Perceived Positive Leadership Effectiveness (PPLE) and Emotional Engagement (EE), was characterized by a t-value of 9.928, a p-value of 0.000 and a path coefficient of 0.507. Interpreted, this means the probability of a t-value as large as 9.928 is 0.000, and for every increase of 1 standard deviation in PPLE, EE will increase by 0.507. H1b, which hypothesized the causal relationship between PPLE and EE to be both significant and positive, is supported at the $p<0.001$ Level.

5.6.2.3 H1c+ : Perceived Positive Leadership Effectiveness (PPLE) has a positive effect on Behavioral Engagement (BE)

As shown in Table 29, the causal relationship between Perceived Positive Leadership Effectiveness (PPLE) and Behavioral Engagement (BE), was characterized by a t-value of 4.773, a p-value of 0.000 and a path coefficient of 0.290. Interpreted, this means the probability of a t-value as large as 4.773 is 0.000, and for every increase of 1

standard deviation in PPLE, BE will increase by 0.290. H1c, which hypothesized the causal relationship between PPLE and BE to be both significant and positive, is supported at the p<0.001 Level.

5.7 Summary

In summary, this research required the generation of a total of two research models and three structural models, to test eleven hypotheses. Research Model 1 was tested through Structural Model 1 (causal effects of H1) and Structural Model 2 (moderating effects of H2a, H2b, and H3a-H3e). Research Model 2 was tested through Structural Model 3 (causal effects of H1a, H1b, and H1c). Figure 14, shows the theoretical model with the results from all eleven hypotheses.

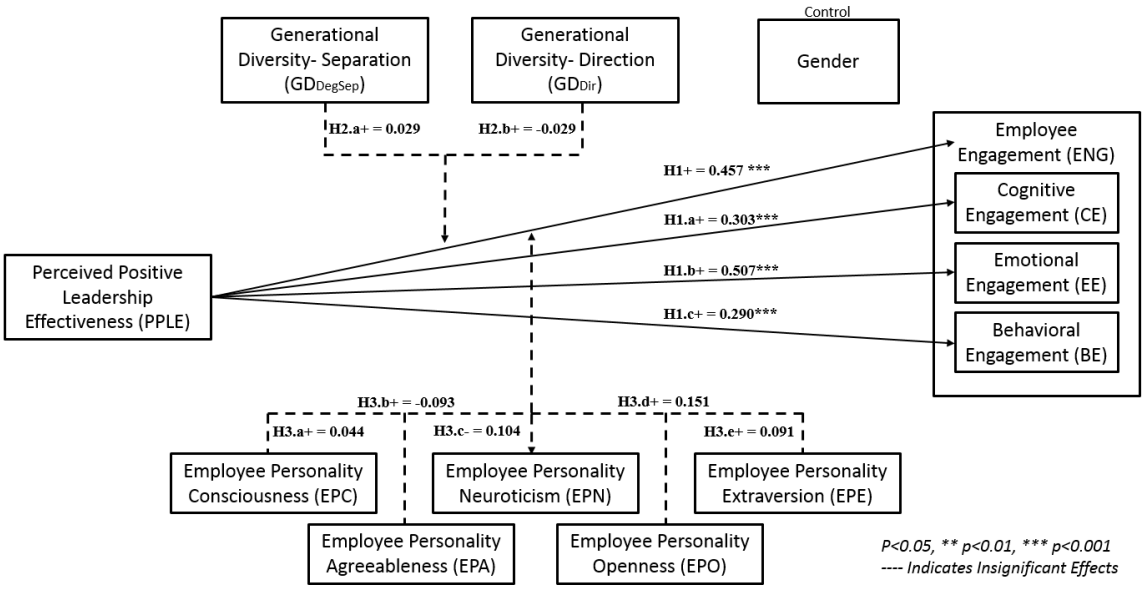

Figure 14. Theoretical Model with Results

Chapter 6: Discussion and Implications

In this chapter, the researcher will discuss the implications, both theoretical and practical, of this research. In introducing implications, the summary findings from the

research found within Figure 14, are key. Out of the 11 hypotheses proposed, four were supported. All four of the supported hypotheses (H1, H1a, H1b and H1c) were related to Perceived Positive Leadership Effectiveness (PPLE) causal effect on varying degrees of Employee Engagement (ENG). These supported hypotheses both further the existing body of literature for engagement and leadership effectiveness, and have significant practical implications for leaders in the workplace. The remaining seven unsupported hypotheses, each predicted moderation of the relationship between PPLE and ENG, by two overarching constructs: Generational Diversity and Employee Personality. While there is little to infer from an unsupported hypothesis, this relationship deserves a deeper dive from a more specified and rudimentary level.

6.1 Theoretical Implications

In this section, the researcher will discuss the theoretical implications of this research on the existing body of knowledge within employee engagement, leadership effectiveness and generational diversity areas of research. As a matter of overarching assessment, the theoretical foundations pertaining to employee engagement and leadership effectiveness were confirmed within this research. This includes theoretical underpinnings of Social Exchange Theory (SET), Campbell's (1991) leadership effectiveness research, the entire body of engagement literature and all literature pertaining to the supervisor's impact on engagement (Blau, 1964; D. P. Campbell, 1991; Kahn, 1990; Robinson et al., 2004; Saks, 2006; Shuck et al., 2017). The researcher was unable to provide additional support for research pertaining to Generational Cohort Theory, psychological trait theory or generational and age diversity research (Digman, 1990; Eletter, 2017; Tupes & Christal, 1961). This lack of support cannot be attributed to

the theories themselves, but can be attributed to various research limitations described in section 6.3.

6.1.1 Employee Engagement

In section 2.3, following arrival at a common definition for employee engagement, several key scales used for measuring employee engagement were provided. Each of these scales had been statistically tested in varying applied environments, and had each been demonstrated as valid and reliable. This study demonstrates Shuck et al.'s (2017) 12-item, three-dimension, Employee Engagement Scale (EES) as reliable and valid, even in a multi-generational, multi-industry environment. Furthermore, the segregation of employee engagement into three sub-dimensions of cognitive, emotional and behavioral engagement, was both congruent with the literature and statistically sound. While additional scales may have allowed the researcher to arrive at an accurate value for engagement, a 12-item scale holds significant merit in survey administration for follow-on research.

6.1.2 Leadership Effectiveness

While employee engagement remains relatively consistent in definition and measurement within existing theoretical frameworks, leadership effectiveness has not. Throughout this research, the researcher referred to a single latent construct for all aspects of perceived leadership effectiveness, as "Positive Perceptions of Leadership Effectiveness (PPLE)." PPLE, was intended to result in an others-rated construct of positive leadership traits, which could be viewed under the context of overall effectiveness. As the starting point for this construct, the researcher relied upon five sub-dimensions of leadership provided by David Campbell (1991), largely because of the

rigor by which Campbell arrived at the final factors measured. Campbell's commercialized instrument, the "Campbell Leadership Index," or "CLI," is quite long and has both a self and other-rating component. While the CLI measures several different primary factors of leadership, the leadership factor itself, measures leadership, energy, affability, dependability and resilience (D. Campbell, 1991). From this instrument, the researcher identified 22 positive key traits, along with two synonyms for each, also found in the CLI. By establishing a single item for each of the 22 traits, alongside the context of two synonyms in parentheses within the item, the researcher was able to establish a concise measure for how an employee perceived their leader's effectiveness.

Following statistical analysis of the PPLE 22-item scale's validity and reliability, the researcher was able to eliminate 7 of the 22 items, resulting in a PPLE scale of 15 items. The significance of this scale to the theoretical body of knowledge surrounding leadership effectiveness, may include the potential for a statistically valid and reliable, yet succinct, evaluation of positive-trait based leadership effectiveness. A 15-item scale for such a complex and multi-dimensional construct, presents an efficient and effective, yet novel approach, to defining others-rated leadership effectiveness.

6.1.3 Leadership Effectiveness and Engagement

Additional contribution may include potential unique theoretical context on the importance of perceptions of leadership effectiveness on engagement. In recap of the fundamentals of engagement, William Kahn, in his 1990 seminal research, proposed one's ability to offer their preferred self to work activity, as dependent on conditions of psychological meaningfulness, safety and availability (Kahn, 1990). Meaningfulness is the feeling of receiving a positive return from the investment of one's self (Kahn, 1990,

p.703). Safety is the, “sense of being able to show and employ self without fear of negative consequences to image, status or career (Kahn, 1990, p.705).” Availability is, “the sense of possessing the physical, emotional and psychological resources necessary for investing self in role performance (Kahn, 1990, p.705).” While many researchers have studied the impact of supervisors on employee engagement (Jiang & Men, 2017; Roberts & David, 2017; Robinson et al., 2004), few have approached this relationship with such a direct and causal hypothesis of perceived leadership effectiveness on the engaged or dis-engaged state. By combining both Shuck et al.’s (2017) EES, and the modified 15-item PPLE scale, one is left with a 27-item scale measuring both how an employee perceives their leader and the resulting impact on their engagement. This simplification of two dynamic constructs could be key to future research on workplace and workforce dynamics.

6.1.4 Generational Diversity

While the researcher was unable to provide support for hypotheses pertaining to generational diversity in the workplace, the novel definition of GD in terms of degrees of separation and direction, could provide the beginnings of a more thorough scale measuring the presence of GD in a relationship. The body of literature surrounding the measurement of generational diversity, as it pertains to how one perceives and acts within a social context, needs to be developed further. Development of this construct with reliable and valid instruments, could facilitate further discovery of GD’s impact on a multi-factorial work relationship and resulting outcomes.

6.2 Practical Implications

In this section, the researcher will discuss the practical implications of this research on employee engagement, leadership effectiveness and generational diversity. In general, this research provides practitioners with reason to support the use of valid and reliable engagement and leadership effectiveness scales and suggests leadership effectiveness as a critical and measurable contributor to employee engagement. This researcher's failure to provide evidence of generational diversity's impact on the relationship between perceived leadership effectiveness and engagement, although not sufficient, does suggest applicable re-framing of the importance of managing generational differences.

6.2.1 Employee Engagement

As an executive leader in a healthcare setting, measurement of engagement is considered commonplace, but often misses the mark in establishing instrumentation measuring the engagement construct. The opportunity for workplaces to return to baseline, leveraging valid engagement scales to measure employee engagement is key. In a post-pandemic era, there will be continued pressure to measure additional workplace dynamics, while referring to these a part of engagement. By doing so, organizations will dilute both understanding of current engagement, and as a result, will implement action planning misaligned with the true state of their workforce. The education of executive leaders on the true definition, dimensions and measurement of employee engagement will be the only way to combat this natural re-direction towards the latest workplace nuance. Furthermore, this study demonstrates Shuck et al.'s (2017) 12-item, three-dimension,

Employee Engagement Scale (EES) as reliable and valid option, even for those smaller organizations interested in establishing a means to measure engagement.

6.2.2 Leadership Effectiveness and Employee Engagement

The saying, "Perception is reality," begins to highlight the importance of managing workplace perceptions. This study demonstrates the causal relationship between perceived leadership effectiveness and one of the most critical workforce characteristics: employee engagement. Structural Model 1 within this study, was found to have value for R^2 of 0.213 for the dependent variable, Employee Engagement. This R^2 of 0.213 suggests 21.3 percent of variance in Employee Engagement (ENG) can be explained by Perceived Positive Leadership Effectiveness (PPLE) and Gender. The researcher believes predictive value of Structural Model 1 to be a summary takeaway from this study. By confirming a causal relationship between PPLE and ENG, the implications in practice extend into hiring, leadership training, communication and actively managing perceptions through effective business practice.

As an executive leader within two organizations who measure leadership effectiveness through others-rated scales, a return to baseline with the instruments and items used is likely called for. Similar to takeaways for engagement scales, leadership effectiveness indices which measure symptoms of leadership effectiveness, rather than direct measurement, will continue to fall short of building meaningful understanding. A re-education on the existing valid and reliable means to measuring this construct is key to a future where leaders receive candid feedback on their own leadership style, and even more critical to organizations who wish to build a leadership team which is both perceived, and actually, effective.

6.2.3 Generational Diversity

While the researcher was unable to provide support for hypotheses pertaining to generational diversity in the workplace, this research does provide an example of survey data communicating generational diversity's (as measured in this study) lack of a significant impact on the relationship between employee engagement and leadership effectiveness. Further analysis of this relationship is key to building an effective and engaged workforce of the future.

6.3 Limitations and Future Research

Limitations to this study include: 1) a potentially inadequate measurement of generational belonging and generational diversity, and 2) a potentially less reliable sample population obtained through a convenience sample.

Future research building upon the same three critical workforce constructs, should take a different approach to the measurement of generational diversity. Overcoming this study's oversimplification of GD, include addressing the varying degrees of one's association with traits common to their generational cohort (Stanton, 2017). Future research might require establishing one's generational identification through items confirming how the respondent relates to each trait common to both their, and other, generations. This might result in hybrid generational categories with weights of varying generations associated. Measuring implications of this more comprehensive generational belonging might be the difference between statistically insignificant relationships and those of significance.

While unlikely to have significantly changed the outcome of H2a and H2b, the consistency of an Amazon Mturk-based sample population may be a limitation of this

study. Future exploratory studies might seek to establish statistical significance of a similar research model, in a controlled, single organization setting.

Chapter 7: Conclusion

This dissertation was rooted in the notion that an employee's perception of their immediate supervisor's leadership effectiveness, and the associated professional exchange, are significant contributors to their own engagement. Diversity, and more specifically generational or age diversity, was proposed to further complicate this relationship. This research was concerned with answering the following questions: "How does generational diversity in the employee-supervisor hierarchy, affect the relationship between positive perceptions of leader effectiveness and employee engagement?," and "Does generational diversity moderates this relationship?." In an effort to avoid missing a critical engagement moderator, this study also explored employee personality as a moderator to this relationship.

Support for the hypotheses demonstrating the importance for leaders to exhibit effective leadership in order to maximize their employee's application of the preferred self, was found (H1, H1a, H1b and H1c). Table 30, demonstrates support with statistical significance at the $p < .001$ level. Failure to do so was demonstrated to result in cognitive, emotional and behavioral engagement deficit.

Table 30. Results of Hypothesized Causal Effects in H1, H1a, H1b and H1c

Path	Path Coefficient	Standard Error	T-Value	P-Value	Result
PPLE>ENG	0.457	0.046	9.311	0.000***	H1 Supported
PPLE>CE	0.303	0.073	4.151	0.000***	H1a Supported
PPLE>EE	0.507	0.051	9.928	0.000***	H1b Supported

PPLE>BE	0.29	0.061	4.773	0.000***	H1c Supported

P<0.05, ** p<0.01, *** p<0.001

Generational diversity, an unavoidable supervisor-employee relationship characteristic, was hypothesized to moderate the relationship between leadership effectiveness and engagement. Table 31, shows these hypotheses (H2a and H2b), as not supported with statistical significance. While many practitioners may assume all diversity is good for the workplace, generational diversity might challenge the assumption because of the severity in differences found between the values of working generations (James et al., 2011). Future research on the impact of generational diversity within work relationships is warranted, even more so in times of significant workforce generational transition.

Table 31. Results of Hypothesized Moderating Effects for GD

Path	Path Coefficient	Standard Error	T-Value	P-Value	Result
(GDsep* PPLE)>ENG	0.029	0.172	0.168	0.866	H2a Rejected
(GDdir* PPLE)>ENG	-0.029	0.165	0.174	0.862	H2b Rejected

P<0.05, ** p<0.01, *** p<0.001

Employee personality characteristics, specifically surrounding the widely accepted, “Big 5,” were evaluated as potential moderators of this same relationship between leadership effectiveness and employee engagement (H3a-H3e) (Digman, 1990; Tupes & Christal, 1961). As depicted in Table 32, this research could not find support for moderation by personality trait.

Table 32. Results of Hypothesized Moderating Effects for EP

Path	Path Coefficient	Standard Error	T-Value	P-Value	Result
(EPc* PPLE)>ENG	0.044	0.126	0.347	0.728	H3a

(EPa* PPLE)>ENG	-0.093	0.13	0.719	0.472	Rejected H3b
(EPn* PPLE)>ENG	0.104	0.095	1.09	0.276	Rejected H3c
(EPo* PPLE)>ENG	0.151	0.128	1.175	0.240	Rejected H3d
(EPe* PPLE)>ENG	0.091	0.085	1.073	0.283	Rejected H3e

P<0.05, ** p<0.01, *** p<0.001

In summary, the results of this research provides several key takeaways: 1) Perceptions of a supervisor's leadership effectiveness, matters to engagement; 2) Measuring both engagement and perceived leadership effectiveness can be done by practitioners in as little as 15 and 12 short survey items, respectively; and 3) Further research on how varying aspects of diversity matter to engagement, including generational diversity, is warranted.

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Appendices

Appendix A. Survey Instrument - Employee Engagement Scale (EES) (Shuck et al., 2017) Modified for GD, PPLE and Personality

Statement ADULT CONSENT TO PARTICIPATE IN A RESEARCH STUDY
Investment in intelligent systems and organization's competitive advantage

SUMMARY INFORMATION

Things you should know about this study:

Purpose: You are being asked to participate in a research study about engagement, diversity and leadership effectiveness. The purpose of the study is to better understand how generational diversity affects employee engagement and an employee's perception of their leader's effectiveness. Procedures: If you choose to participate, you will be asked to complete a survey on employee engagement in your current work environment, while working for you current supervisor (Direct). This single survey will be the only task you will be asked to complete.

Duration: Completion of this survey should not exceed 30 minutes. Actual survey completion time is expected to be 10 minutes. Risks: The are NO known risks to participation in this research. Benefits: This study will help practitioners and Human Resource Departments better understand the factors effecting employee engagement, specifically generational diversity.

Alternatives: There are no known alternatives available to you other than not taking part in this study. Participation: Taking part in this research project is completely voluntary.

Please carefully read the entire document before agreeing to participate.

PURPOSE OF THE STUDY

You are being asked to participate in a research study about engagement, diversity and leadership effectiveness. The purpose of the study is to better understand how generational diversity affects employee engagement and an employee's perception of their leader's effectiveness.

NUMBER OF STUDY PARTICIPANTS

If you decide to be in this study, you will be one of an estimated 300 participants.

DURATION OF THE STUDY

Completion of this survey should not exceed 30 minutes. Average survey completion time is 10 minutes.

PROCEDURES

If you agree to be in the study, we will ask you to do the following things:

1. As part of this study you will be requested to complete an online questionnaire consisting of a pre-determined number of items.
2. Before your voluntary participation, please read, complete, and sign this consent form.
3. Please attempt to answer all questions to the best of your abilities.

RISKS AND/OR DISCOMFORTS

There are no known risks, harms or discomforts from this study beyond that which may be experienced filling out any survey instrument. There are no known physical, psychological, social, legal, and/or economic risks, harms and/or discomforts from this study. There are no known potential risk for illness or injury due to this research.

BENEFITS

This study will help practitioners and Human Resource Departments better understand the factors effecting employee engagement, specifically generational diversity. The more we understand engagement, the better our organizations will become at enriching the work-life balance and experience.

ALTERNATIVES

There are no known alternatives available to you other than not taking part in this study. Any significant new findings developed during the course of the research which may relate to your willingness to continue participation, will be provided to you.

CONFIDENTIALITY

Confidentiality: Once the informed consent is signed a unique number will be assigned to your survey response. The unique number will be known only by the principle investigators and that list will be kept separate from all other research records. Throughout the course of the study, collection of the data, analysis of the data and aggregation of the results, your unique identifier will be the only way we identify your survey results. Your name will NOT be used.

Additionally, our survey website is password protected. USB and Laptop computer data files are also password protected and encrypted.

Anonymity: No name or birth date will be provided by the participants. Demographic information will be title, gender, age/ generation, and superior/ supervisor generation. The records from this study will be kept private and will be protected to the fullest extent provided by law. We will not include any information that will make it possible to identify participants during the publishing of research findings. Research records will be stored securely and only the research team will have access to the records. Participant records may be inspected by authorized University or other agents who will also keep the information confidential.

USE OF YOUR INFORMATION

Your information collected as part of the research will NOT be used or distributed for future research studies, outside of the scope of this current study and principle investigator.

COMPENSATION & COSTS

There is no cost to participating in this survey. Participations will receive compensation through Amazon MTurk, equivalent to the MTurk job posting at the time of participation.

MEDICAL TREATMENT

Participation in this study will not result in the need for any medical treatment.

RIGHT TO DECLINE OR WITHDRAW

Your participation in this study is voluntary. You are free to participate in the study or withdraw your consent at any time during the study. You will not lose any benefits if you decide not to participate or if you quit the study early. The investigator reserves the right to remove you without your consent at such time that he/she feels it is in the best interest.

RESEARCHER CONTACT INFORMATION

If you have any questions about the purpose, procedures, or any other issues relating to this research study you may contact Dr. George Marakas at FIU, Modesto A. Maidique Campus, 11200 S.W. 8th St, RB 250, Miami, FL 33199, by phone at 305-348-2830 or by email at gmarakas@fiu.edu or you may contact Mr. Matt Baumann at FIU, by phone at 305-775-5782 or by email at mbaum029@fiu.edu.

IRB CONTACT INFORMATION

If you would like to talk with someone about your rights of being a subject in this research study or about ethical issues with this research study, you may contact the FIU Office of Research Integrity by phone at 305-348-2494 or by email at ori@fiu.edu.

Agree PARTICIPANT AGREEMENT

I have read the information in this consent form and agree to participate in this study. I have had a chance to ask any questions I have about this study, and they have been answered for me. I have read and understood the above consent form and desire at my own free will to participate in this study.

○ Yes, I have read and agree to the informed consent.

Page Break

End of Block: Consent

Start of Block: Background/ Demographics

D1 What is your Gender?

- Male
- Female
- Other
- I prefer not to answer

B1 Which role best describes YOUR current position in the workplace?

- Individual Contributor
- Lead
- Supervisor
- Manager
- Director
- Executive

B2 Which role best describes YOUR DIRECT LEADER's current position in the workplace?

- Lead
- Supervisor
- Manager
- Director
- Executive

End of Block: Background/ Demographics

Start of Block: GD

GD1 Which of the below generations do YOU belong to?

- Generation Z (Born 2001-2021, Age 16-20)
- Millennial/ Y Generation (Born 1981-2000, Age 21-40)
- Generation X (Born 1965-1980, Age 41-56)
- Baby Boomer Generation (Born 1946-1964, Age 57-75)
- Mature/ Silent Generation (Born 1927-1945, Age 76-94)

GD2 Which of the below generations does YOUR DIRECT LEADER belong to?

- Generation Z (Born 2001-2021, Age 16-20)
- Millennial/ Y Generation (Born 1981-2000, Age 21-40)
- Generation X (Born 1965-1980, Age 41-56)
- Baby Boomer Generation (Born 1946-1964, Age 57-75)
- Mature/ Silent Generation (Born 1927-1945, Age 76-94)

End of Block: GD

Start of Block: EDU

EDU1 What is the highest degree or level of schooling YOU have completed?

- High School or Equivalent
- Associate's Degree
- Bachelor's Degree
- Master's Degree
- PhD or Doctorate

EDU2 What is the highest degree or level of schooling YOUR DIRECT LEADER has completed?

- ○ High School or Equivalent
- ○ Associate's Degree
- ○ Bachelor's Degree
- ○ Master's Degree
- ○ PhD or Doctorate
- ○ I am unsure

End of Block: EDU

Start of Block: EE

EE1 Working at my current organization has a great deal of personal meaning to me.

- ○ Strongly disagree
- ○ Disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Agree
- ○ Strongly agree

EE2 I feel a strong sense of belonging to my job.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

EE3 I believe in the mission and purpose of my team.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

EE4 I care about the future of my team.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

End of Block: EE

Start of Block: BE

BE1 I really push myself to work beyond what is expected of me.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

BE2 I am willing to put in extra effort without being asked.

- ○ Strongly disagree
- ○ Disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Agree
- ○ Strongly agree

BE3 I often go above what is expected of me to help my team be successful.

- ○ Strongly disagree
- ○ Disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Agree
- ○ Strongly agree

BE4 I work harder than expected to help be successful.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

End of Block: BE

Start of Block: CE

CE1 I am really focused when I am working.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

CE2 I concentrate on my job when I am at work.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

CE3 I give my job responsibilities a lot of attention.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

CE4 At work, I am focused on my job.

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

End of Block: CE

Start of Block: PPLE Instructions

PPLE Please respond to each of the below questions about a trait describing your direct leader. Your response will range from Strongly Disagree to Strongly Agree.

End of Block: PPLE Instructions

Start of Block: PPLEL

PPLEL1 My direct leader is Ambitious. (competitive, forceful)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEL2 My direct leader is Daring. (adventuresome, risk-taking)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEL3 My direct leader is Dynamic. (Enthusiastic, inspiring)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEL4 My direct leader is Enterprising. (Impressive, Resourceful)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEL5 My direct leader is Experienced. (savvy, well-connected)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEL6 My direct leader is farsighted. (insightful, forward-looking)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEL7 My direct leader is Original. (creative, imaginative)

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly Agree

PPLEL8 My direct leader is Persuasive. (creative, imaginative)

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly Agree

PPLEE1 My direct leader is Energetic. (Active, healthy)

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly Agree

PPLEA1 My direct leader is Affectionate. (emotional, not aloof)

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly Agree

PPLEA2 My direct leader is considerate. (cooperative, helpful)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEA3 My direct leader is Empowering. (encouraging, supportive)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEA4 My direct leader is Entertaining. (extraverted, humorous)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLEA5 My direct leader is Friendly. (cheerful, likeable)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLED1 My direct leader is Credible. (candid, trustworthy)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLED2 My direct leader is Organized. (orderly, methodical)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLED3 My direct leader is Productive. (dependable, effective)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLED4 My direct leader is Thrifty. (frugal, not extravagant)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLER1 My direct leader is Calm. (easy-going, serene)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLER2 My direct leader is Flexible. (adaptable, not stubborn)

- ○ Strongly Disagree
- ○ Disagree
- ○ Somewhat Disagree
- ○ Neither agree nor disagree
- ○ Somewhat Agree
- ○ Agree
- ○ Strongly Agree

PPLER3 My direct leader is Optimistic. (resilient, well-adjusted)

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly Agree

PPLER4 My direct leader is Trusting. (trusting, not cynical)

- Strongly Disagree
- Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat Agree
- Agree
- Strongly Agree

End of Block: PPLEL

Start of Block: EP

EP1
For each of the below statements, please move the slider to a position that best describes or rates YOU.

A score of 0, would mean your are LEAST represented by the statement. (0=Least Describes You)

A score of 100, would mean you are BEST represented by the statement. (100=Best Describes You)

0 10 20 30 40 50 60 70 80 90 100

I am DISCIPLINED	
I am ANXIOUS	
I am DISORGANIZED	
I am TRUSTING	
I am IMPULSIVE	
I am SUSPICIOUS	
I am UNCOOPERATIVE	
I am CAREFUL	
I am HELPFUL	
I am CALM	
I am PRACTICAL	
I am PESSIMISTIC	
I am IMAGINATIVE	
I am CONFIDENT	
I am SPONTANEOUS	
I am RESERVED	
I am THOUGHTFUL	
I am ROUTINE	
I am SOCIABLE	
I am FUN-LOVING	

End of Block: EP

Start of Block: mTurk

mTurk Thank you for your participation. Your validation code for mTurk is ${e://Field/Random}

Please press the NEXT button in order to receive your payment.

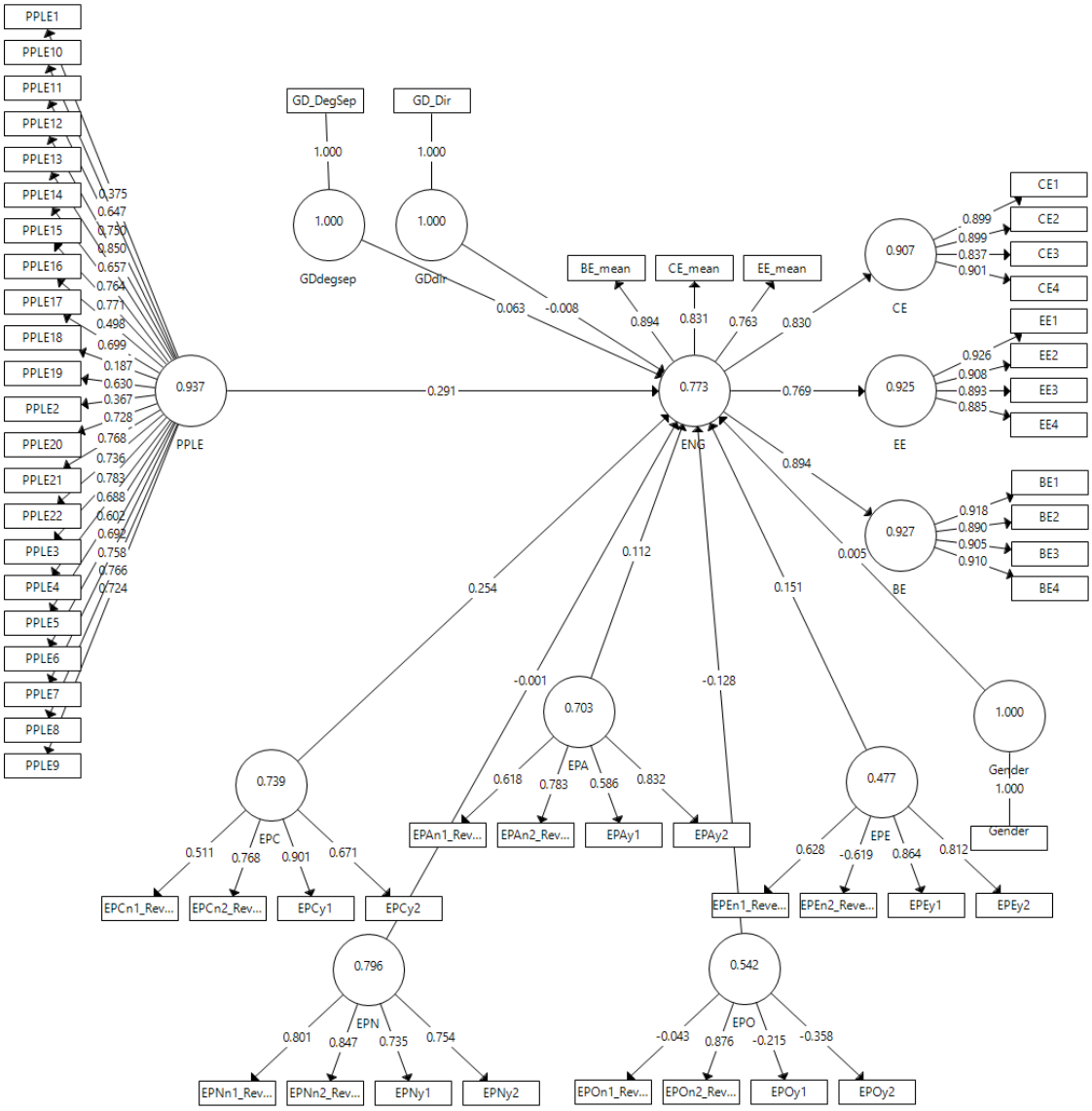
End of Block: mTurk

Start of Block: Comments

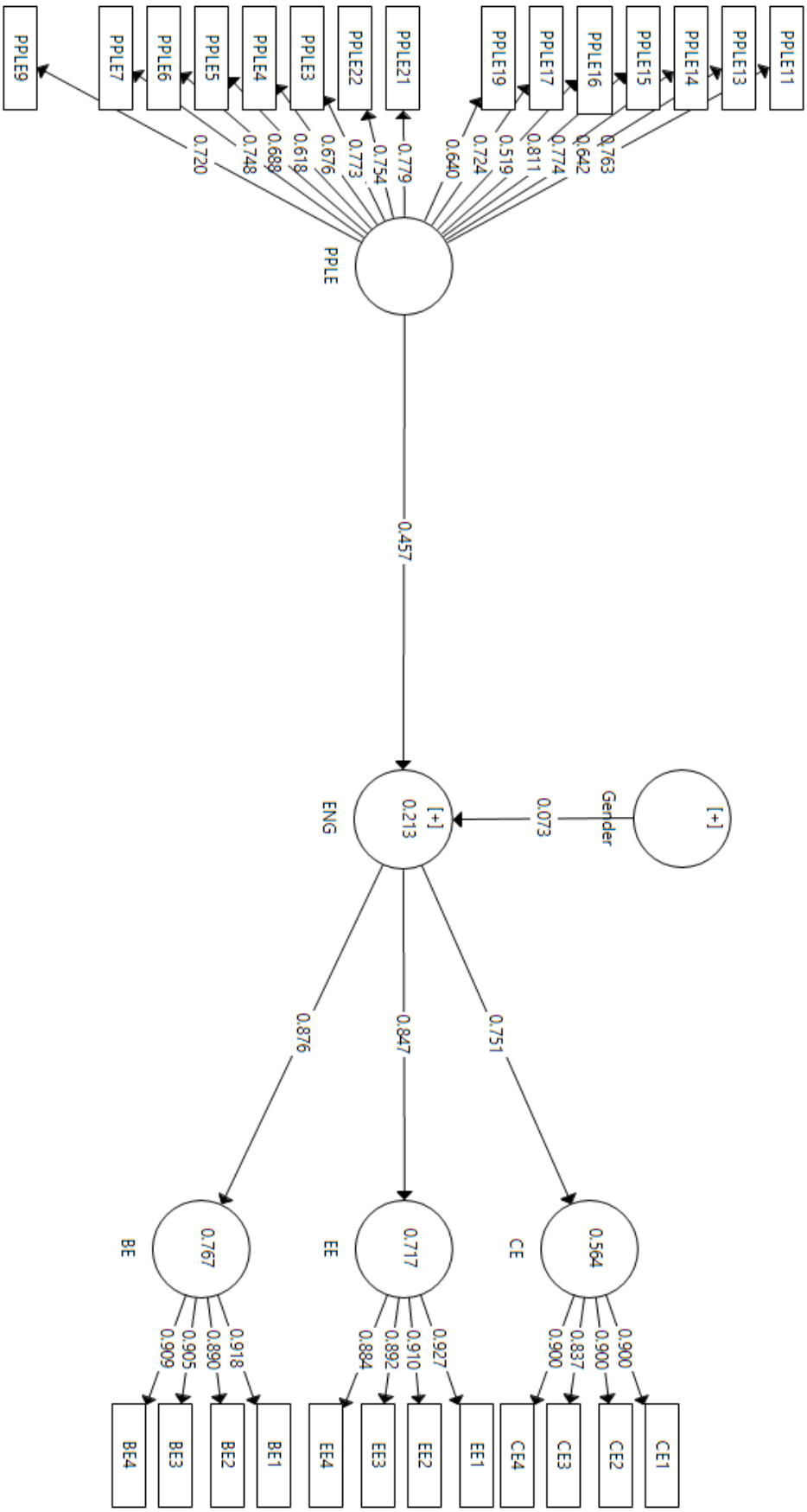
Comments? Please write any comments or recommendations to the researcher.

End of Block: Comments

Appendix B. Initial CFA for Research Model 1 (Prior to Removing Items)



Appendix C. Smart-PLS Model for Structural Model 1 (Causal Effects of H1) After Deleting Items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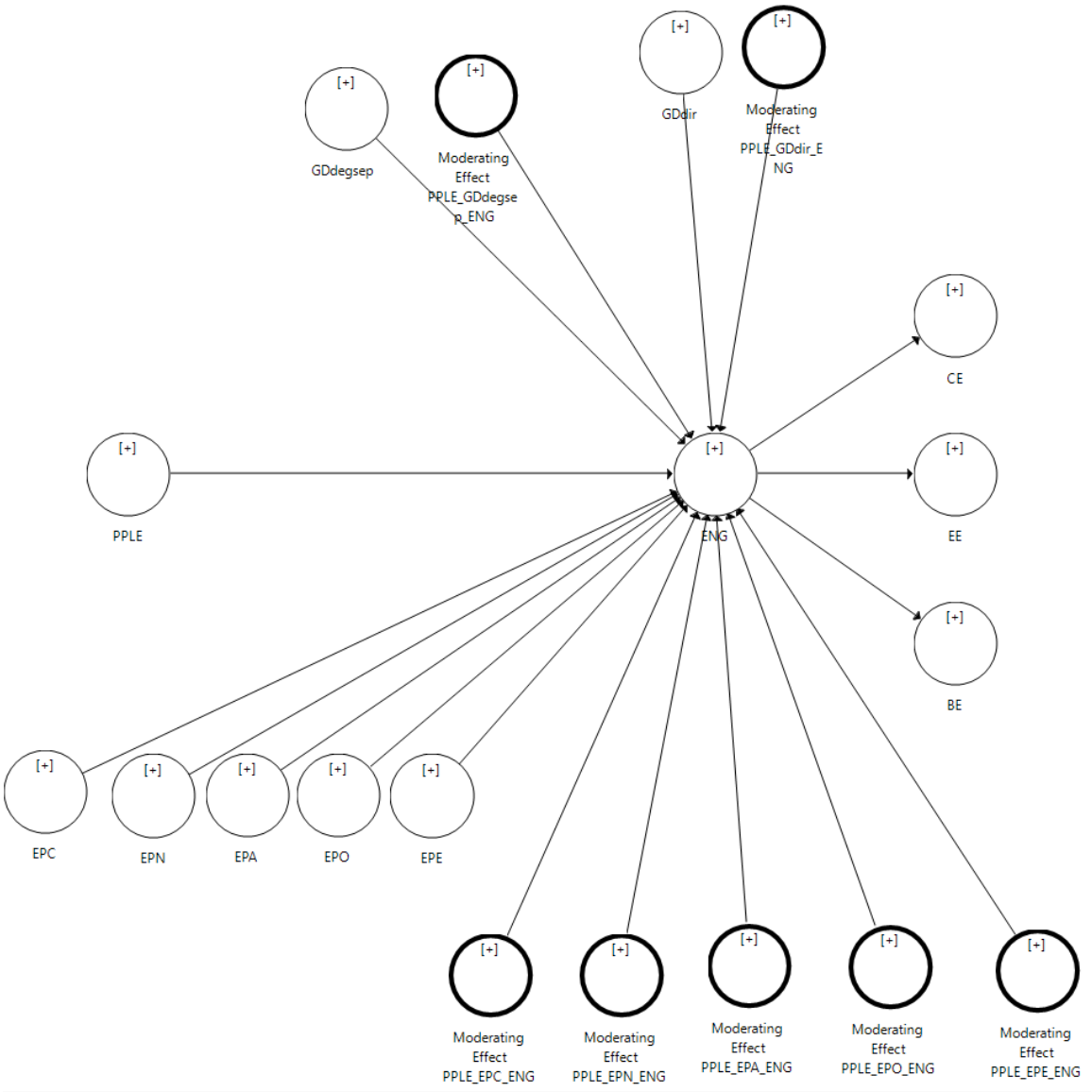
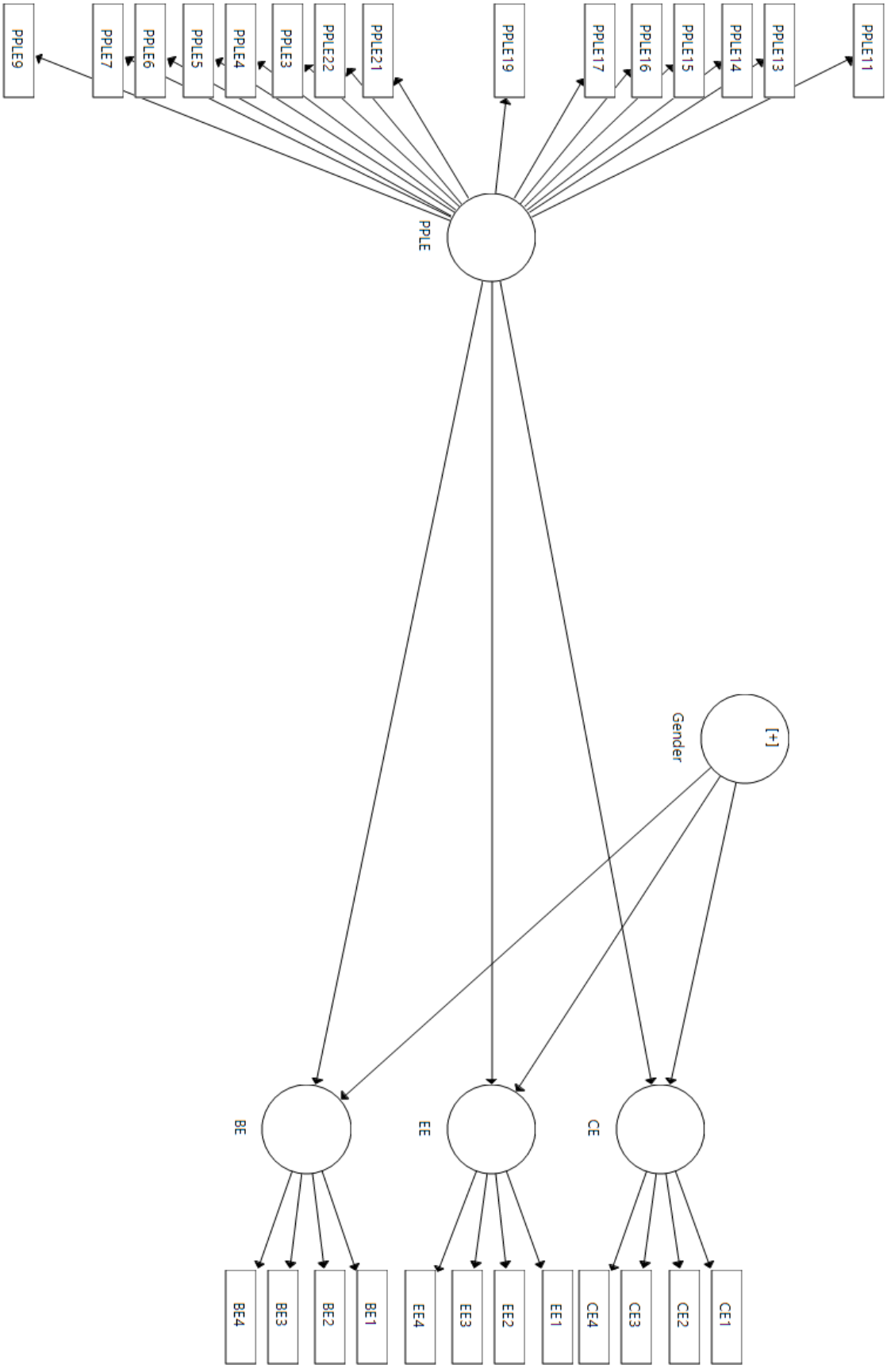
PPLE13
PPLE14
PPLE15
PPLE16
PPLE17
PPLE19
PPLE21
PPLE22
PPLE3
PPLE4
PPLE5
PPLE6
PPLE7
PPLE9
0.763
0.642
0.774
0.811
0.519
0.724
0.640
0.779
0.754
0.773
0.676
0.618
0.689
0.748
0.720
PPLE
0.457
ENG
[+]
0.213
Gender
0.073
[+]
0.876
0.847
0.751
BE
0.767
EE
0.717
CE
0.564
0.909
0.905
0.890
0.918
0.884
0.892
0.910
0.927
0.900
0.837
0.900
0.900
BE4
BE3
BE2
BE1
EE4
EE3
EE2
EE1
CE4
CE3
CE2
CE1

Appendix D. Smart-PLS Model for Structural Model 2 (Moderating Effects of H2a, H2b, H3a-H3e)



Appendix E. Smart-PLS Model for Structural Model 3 (Causal Effects of H1a, H1b, H1c) After Deleting Items


PPLE9
PPLE7
PPLE6
PPLE5
PPLE4
PPLE3
PPLE22
PPLE21
PPLE19
PPLE17
PPLE16
PPLE15
PPLE14
PPLE13
PPLE11
PPLE
Gender
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BE
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CE
BE4
BE3
BE2
BE1
EE4
EE3
EE2
EE1
CE4
CE3
CE2
CE1

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