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Relationship Among Compensation, Benefits, Intrinsic Motivators, and Potential Referral Candidates

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This is to certify that the doctoral study by

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Abstract

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MAFM, Keller Graduate School of Management, 2015

BBA, DeVry University, 2014

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

High rates of turnover among truck drivers in the United States limit the abilities of organizations to effectively move freight if organizational leaders cannot efficiently and economically replace drivers. The purpose of this correlational study was to examine the relationship among compensation, benefits, intrinsic motivators, and potential referral recruiting in transportation organizations. Herzberg's 2-factor theory was the theoretical framework for this study. Secondary data were collected for 566 Class A truck drivers from an Illinois-based partner organization's 2018 employee satisfaction survey. The results of the multiple linear regression analyses indicated a significant relationship exists, $F(3,562) = 258.323$, $p < .001$, $R^2 = .580$, among compensation ($\beta = .231$, $p < .001$), benefits ($\beta = .101$, $p < .002$), intrinsic motivators ($\beta = .554$, $p < .001$), and potential referral recruiting in transportation organizations. Overall, the independent variables accounted for 58% of the variance in the dependent variable with intrinsic motivators having the largest effect. The implication of these findings for positive social change includes equipping business leaders with information about motivational factors for recruiting drivers through referrals, which might increase community employment levels to improve the standard of living.

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Dedication

I dedicate this doctoral study to my children. They are the future of the world. I hope they will realize that with hard work and determination, they can persevere and overcome any challenge before them. Anything is possible.

Acknowledgments

First and foremost, I would like to thank our Heavenly Father. Without him, I could do nothing. He has given me the grit and aptitude to complete this journey. The Lord has blessed me more than I can ever know.

I would also like to thank my friends and family. They have encouraged me and stuck by me through this hectic time. They understood the struggles I faced through the doctoral process, my absence in daily life, and flexibility that I needed to complete the process.

Finally, I would like to thank my committee members. They provided me with the guidance that I needed to persevere. While not all feedback is easy to swallow, feedback is a gift and I am a better scholar because of it.

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Section 1: Foundation of the Study

Organizational leaders could use effective recruiting methods to control costs and maintain an adequate supply of qualified employees. The strategies and policies that organizational leaders choose to enact can have significant effects on the cost and productivity of the firm (Wolthoff, 2018). Organizational leaders may choose to leave a position open longer to obtain correct employee fit, or they may choose among different methods of recruiting. The other side of the recruiting perspective involves the choices of potential candidates and whether they feel they are a match to the organization (Wolthoff, 2018). Candidates may decide to apply to various organizations or choose a select few depending on their wants and needs.

Researchers have examined recruiting from different views. Van Hoye (2013) explored the connection between employees' intrinsic, extrinsic, and prosocial motivations in connection with recruiting. Policymakers may pick more effective recruiting options by understanding what motivates a potential candidate to apply. In this quantitative study, I examined the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates.

Background of the Problem

Personnel issues present significant challenges to many organizations. Turnover rates at trucking organizations have consistently remained higher than 70% since 2011 (McNally, 2017). Organizational leaders experience large expenses though employee turnover, which is compounded by deficient recruiting methods (Pieper, Greenwald, & Schlachter, 2018). Many managers know turnover affects the bottom line, but they lack

the knowledge of how much and how to reduce the effects (Hinkin & Tracey, 2000). Traditional methods of recruiting may cost organizations more money and yield fewer hires than other methods of recruiting (Rafaeli, Hadomi, & Simons, 2005). Transportation organization leaders might develop the ability to maintain appropriate employment levels by understanding various methods of recruiting.

Problem Statement

Organizational leaders experience difficult choices between expensive and inefficient recruiting methods (Pieper et al., 2018). Thirty-eight percent of public and 48% of private organization directors of 4,000 global companies rated recruiting qualified talent as a key challenge in a 2016 survey (Steffee, 2016). The general business problem was that finding qualified candidates challenges some organizational leaders. The specific business problem was that some transportation business leaders do not understand the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations. The independent variables were compensation, benefits, and intrinsic motivators. The dependent variable was potential referral candidates. The targeted population consisted of licensed Class A drivers in Illinois. The implications for positive social change include equipping business leaders with information on motivational factors for recruiting drivers through referrals, thereby

increasing community employment levels.

Nature of the Study

Researchers choose between quantitative, qualitative, and mixed methods when conducting research (Saunders, Lewis, & Thornhill, 2016). I used the quantitative method because I was looking to see if a relationship existed among the variables: compensation, benefits, intrinsic motivators, and potential referral recruiting in transportation organizations. Researchers use the quantitative method when testing the relationship between two or more variables by using numerical data (Saunders et al., 2016).

Researchers traditionally use qualitative research to further discovery (Park & Park, 2016) by relying on the perceptions and lived experiences of the participant (Rutberg & Bouikidis, 2018). I did not select the qualitative method because I wanted to isolate individual variables rather than explore the phenomenon. The mixed-methods study is a mixture of both qualitative and quantitative research methods (Saunders et al., 2016). I did not select mixed methods because using mixed methods would not have helped me to answer my research question.

I considered the causal-comparative and correlational designs within the quantitative research method. The causal-comparative design is appropriate when comparing the means of the dependent variable of two or more mutually exclusive groups, when the independent variables are categorical and not experimentally manipulated (Schenker & Rumrill, 2004). I did not choose the causal-comparative design because I did not intend to compare the means of two groups. The correlational design is

appropriate when examining the relationship among variables that the researcher has no control over and when the researcher is not looking to make an inference as to cause and effect (Lappe, 2000). The correlational design was appropriate for this study because I intended to look at the relationship between multiple variables.

Research Question and Hypotheses

RQ: What is the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates?

H_0: There is no significant relationship among compensation, benefits, intrinsic motivators, and potential referral candidates.

H_1: There is a significant relationship among compensation, benefits, intrinsic motivators, and potential referral candidates.

Theoretical Framework

Herzberg initiated a new line of motivational theories when he developed the two-factor theory in 1959 in which the lack of one set of circumstances demotivates a person while a different set of circumstances provides motivation (Herzberg, Mausner, & Snyderman, 2017). Hygiene factors, demotivators, result from a lack of things such as benefits, pay, quality supervision, and a good physical work environment (Herzberg et al., 2017). By contrast, motivators include things such as challenging work, recognition, and feeling valued within the organization (Herzberg et al., 2017).

Inspiration directly relates to employee motivation (Malik, Javed, & Hassan, 2017). Herzberg et al. (2017) directly identified compensation and benefits as two of the hygiene factors. I expected the predictor variables to distinguish between the likelihood

of whether respondents would refer potential recruits to work for their organization based on Van Hoye's (2013) findings that organizations can increase referral recruiting by acting on employees' intrinsic, extrinsic, and prosocial motivations.

Operational Definitions

Extrinsic satisfaction factors: Extrinsic satisfaction factors are effects that do not originate within the individual, such as the physical work environment, monetary compensation, and job security (Bektas, 2017).

Hygiene factors: Hygiene factors are extrinsic job conditions that when absent, intensify dissatisfaction, but when present, do not greatly motivate employees (Kotni & Karumuri, 2018).

Intrinsic satisfaction factors: Intrinsic satisfaction factors are effects when motivation originates from within the self, such as a feeling of contribution, autonomy, and a sense of belonging (Bektas, 2017).

Motivator factors: Motivator factors are intrinsic job conditions that when present, promote increased productivity and job satisfaction (Kotni & Karumuri, 2018).

Referral recruiting: Referral recruiting is word-of-mouth communication by current employees to recruit others to the organization that is outside of an organization's control (Van Hoye, 2013).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are the ideas or concepts researchers accept as true based on their experiences (Lips-Wiersma & Mills, 2013). Researchers must make certain assumptions

for untestable circumstances to allow the observer to draw conclusions from the observed data (Armstrong & Kepler, 2018). While assuming the existence of untestable circumstances to be true, assumptions must still be acknowledged and evaluated (Armstrong & Kepler, 2018). The first assumption was that each participant took the time to answer each question honestly based on their own experiences. The second assumption was that the participants completed the survey free of pressure or influence by outside forces.

In addition to general assumptions in research, quantitative research also includes a series of statistical assumptions that the data must meet to draw valid conclusions. The statistical conclusions include (a) linearity of the residuals, (b) homoscedasticity, (c) independence of the errors or that the same errors are not repeated, (d) normality, (e) multicollinearity, and (f) extreme outliers (Hickey, Kontopantelis, Takkenberg, & Beyersdorf, 2019), which are discussed in more detail in Section 2.

Limitations

All studies have limitations, factors outside of the researcher's control, which have the potential to affect both internal and external validity (Greener, 2018). This study contained two weaknesses. The first weakness of this study was that I used the correlational design. The correlational design contains inherent weaknesses in that correlation only means a statistical relationship exists (Dorestani & Aliabadi, 2017). I would have had to control for all outside influences to ensure only the independent variable influenced the dependent variable and the independent variable changed before the dependent variable in every instance to infer a cause and effect relationship between

variables.

The second limitation of this study was that I used secondary data collected by an outside organization. With secondary data, uncertainty may exist around the methods and processes used to collect the data unless the collecting party maintained detailed notes (Ellram & Tate, 2016). Any data source exists from a specific point in time, and archival data reveal what happened in the past, which may lose relevance in the present (Ellram & Tate, 2016).

Delimitations

Simon and Goes (2013) referred to delimitations as the boundaries or scope the researcher self-imposes on the study. I delimited the study to include only licensed Class A truck drivers within the Illinois-based target organization that employs over 5,000 persons. Delimiting a study isolates the objects of concern from the larger phenomenon (Lo, 2016). A third-party organization collected the data through a survey for the Illinois-based transportation organization in this study. The partner organization commissioned the survey in 2018 but conducts similar surveys annually. Delimiting my study may limit generalizability to other geographic locations and professions.

Significance of the Study

Organizational leaders can use the findings to assess whether current employees might refer the organization as a possible employer to others. Significant predictors can become the focus of leadership initiatives to increase referral recruiting. The implications for positive social change include equipping business leaders with information on motivational factors for recruiting drivers through referrals, thereby

increasing community employment levels.

Contribution to Business Practice

Much of the literature in the 2010s focuses on the retention of current employees rather than recruitment. An organization cannot retain employees if it does not hire them in the first place. Referred workers stay longer, perform better across some metrics, and produce higher profits per worker (Burks, Cowgill, Hoffman, & Housman, 2015). The potential insight obtained from this study may provide organizational leaders with data to build strategies to effectively increase driver referrals, resulting in better productivity, reduced recruiting costs, and increased profits.

Implications for Social Change

The implications for positive social change include equipping business leaders with information on motivational factors for recruiting drivers through referrals, thereby increasing community employment levels. Employees might submit friends and family when they participate in referral programs. Some organizations hire more referrals than outside candidates, which may increase employment levels for the local community. Increased employment levels could equate to a higher standard of living for members of the community.

A Review of the Professional and Academic Literature

Organizational leaders could use recruiting and retention of talent as one of their operating strategies. Recruiting costs can adversely affect the bottom line of businesses (Rafaeli et al., 2005). Organizational leaders may consider exploring and adopting a more cost-effective means of recruiting. The purpose of this quantitative correlational

study was to understand the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations.

By understanding the relationship among the variables, organizational leaders can develop strategies that might enable them to increase the potential for referral recruiting. The literature review is a critical step in a research document because it helps the author to become more of a subject matter expert as well as helping to identify specific gaps in existing research (Saunders et al., 2016). The literature review is the foundation for readers to understand the basics and to see the need for this study (Saunders et al., 2016).

The research question and hypotheses were:

RQ: What is the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates?

H_0: There is no significant relationship among compensation, benefits, intrinsic motivators, and potential referral candidates.

H_1: There is a significant relationship among compensation, benefits, intrinsic motivators, and potential referral candidates

To start this literature review, I read other dissertations and collected any appropriate sources of literature in terms of topic and publication date. Based on the references I collected, I used Google Scholar and the Walden University online library for citation chaining. This literature review consists of peer-reviewed articles, dissertations, academic books, and other scholarly articles on recruitment and motivational theory.

The selected literature includes both qualitative and quantitative studies. I used

Academic Source Complete, *Business Source Complete*, *Emerald Insight, ProQuest Central,* and *ScienceDirect* as my primary databases. Some of the key search terms included *strategic management, two-factor theory, personnel management, Hertzberg, referral recruiting,* and *attracting talent*. References with publication dates 2015 and newer represent 91% of the references in the literature review (see Table 1).

Table 1

Source of Data for Literature Review

Literature review source content			
	Total	Total within 5 years of expected graduation date	% Within 5 years (2019)
Peer-reviewed journals	84	78	93%
Other scholarly articles	6	5	83%
Books	5	3	60%
Total	95	86	91%

The literature review consists of a variety of topics that starts with my chosen theoretical lens and rival theories. I reviewed the independent variables of (a) compensation, (b) benefits, and (c) intrinsic job factors. I also reviewed the literature on the dependent variable of referral recruiting, the benefits of using referral recruiting, and how referral recruiting compares with other common recruiting methods. I address the survey questions and how they measure the variables and finally end the literature review with a transition to Section 2.

Application to the Applied Business Problem

The purpose of this quantitative correlational study was to understand the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations. The target population consisted of licensed Class A truck drivers from a large transportation company in Illinois. The implications for positive social change could include equipping business leaders with information on motivational factors for recruiting drivers through referrals, thereby increasing community employment levels.

Herzberg's Two-Factor Theory

In 1959, Herzberg, Mausner, and Snyderman developed a new theory on what motivates employees to perform their best at work (Herzberg et al., 2017). The authors began the journey 2 years earlier when they reviewed studies that appeared to contradict each other (Herzberg et al., 2017). Current researchers refer to the theory that emerged as Herzberg's two-factor theory. Herzberg predicated in his theory that workers find motivation in the intrinsic factors of their jobs, while simultaneously becoming demotivated by a lack of hygiene factors at their jobs (Herzberg et al., 2017). Kalhoro, Jhatial, and Khokhar (2017) concluded both intrinsic and extrinsic factors play an equal role in creating a motivated employee. The first construct Herzberg identified in the two-factor theory comes from factors outside of the person's control.

Extrinsic factors. Herzberg et al. (2017) identified the first of two constructs as the hygiene factors or the items over which the employee exhibits no control within the workplace. The presence of the hygiene factors will not motivate the employee, yet the

absence of hygiene factors will serve to demotivate the employee. The hygiene factors include (a) salary and benefits, (b) organizational policies, (c) supervisor relationship and treatment, (d) peer relationships, and (e) physical work environment (Tania, 2016). The most common and basic extrinsic factors include remuneration and benefits (Bercu & Onofrei, 2017; Kalhoro et al., 2017). Direct compensation provides a means for employees to provide for most needs.

Base pay. People must have the ability to make a decent wage to support a decent standard of living. Sage (2016) noted some participants based the attractiveness of some jobs on how the wages compare to other positions. Some employees leave a job because they consider the salary inadequate (Covington-Ward, 2017). Salary directly affects a person's ability to create an adequate lifestyle and support their family. People may not accept a position or continue employment when they feel direct compensation falls short of their expectations.

Snelgar, Shelton, and Giesser (2017) found lower-income populations had more intrinsic motivation than their higher-income counterparts, contrary to many of the references the authors cited in their literature review. Employees who feel their pay meets their expectations are more likely to experience higher intrinsic factors (Renard & Snelgar, 2015). The perception of adequate pay reinforces the notion that pay may not truly motivate someone, but a lack of pay could potentially demotivate the individual.

Additional compensation. Herzberg et al. (2017) presented all compensation as a single hygiene factor. However, in the context of the U.S. workforce, benefits compensation has become just as important as base salary. Workers in the United States

are less likely to quit their job when their employer provides a private medical insurance plan (Renaud, Morin, & Bechard, 2017). Renaud et al. (2017) also showed adequate traditional benefits as a whole increase an employee's organizational commitment. Benefits outside of direct compensation provide an important incentive to U.S. employees. Employees with higher organizational commitment provide a benefit to the organization.

Other hygiene factors. Extrinsic factors extend beyond just base compensation and benefits. Herzberg included other hygiene factors in his theory such as safety (physical work environment), fair policies, and decent treatment by others (Herzberg et al., 2017). In the context of professional truck drivers, because of the lifestyle they live, safety plays the most important role. The safety climate of an organization directly relates to employee commitment and potential recruiting outcomes (Swartz, Douglas, Roberts, & Overstreet, 2017). A safety-conscious organization most likely exhibits other desirable policies.

Intrinsic factors. Herzberg identified the second construct as the motivational factors or those items that come from within the employee (Herzberg et al., 2017). The intrinsic factors directly affect employee motivation. The motivational factors include (a) achievement, (b) recognition, (c) responsibility, (d) advancement, and (e) the actual work (Tania, 2016). Many organizations focus on the extrinsic needs of the employee and fail to address the intrinsic needs (Kalhoro et al., 2017). Committed employees find importance and meaning in their jobs from within themselves.

Inspiration directly relates to motivation in employees. Inspired employees feel

mastery over their work, optimism, and a sense of accomplishment (Wartiovaara, Lahti, & Wincent, 2019). Organizations gain two-fold from motivated employees. Motivated employees perform better than unmotivated employees, and the motivation can transfer to others who come in contact with the motivated employee (Wartiovaara et al., 2019). Inspired employees have a sense of purpose and self-worth that may eventually lead to personal growth (Wartiovaara et al., 2019). Inspired employees could potentially show more work motivation and provide the organization with long term talent.

Herzberg identified several examples of intrinsic motivators (Herzberg et al., 2017). Organizational leaders can use appreciation and recognition as one way to effectively provide inspiration and motivation to their employees (Shonubi, Abdullah, Hashim, & Ab Hamid, 2016). Showing appreciation and recognition reinforces the employees' self-esteem and self-worth. Ensuring good employees have opportunities to advance also aids with intrinsic motivation (Holmberg, Sobis, & Caro, 2017). Employees and people, in general, care about a fair play environment and expect to see rewards go to those who deserve them (Shonubi et al., 2016). Organizations that award promotions and advancement to the best employees rather than showing favoritism will likely have a well-motivated employee base.

Application of two-factor theory. Herzberg's two-factor theory has been the basis of many studies. Tania (2016) concluded that while a lack of salary might cause someone to seek alternative employment, the presence of a good salary will not guarantee employee commitment to the organization. In the same study, Tania also concluded that salary, in conjunction with other hygiene and motivational factors, combine to affect

overall employee satisfaction.

Kalhoro et al. (2017) showed the importance of organizations helping to provide both intrinsic and extrinsic motivation to their employees and how both factors improved organizational commitment in addition to increasing employee efficiency. The results of the studies helped to reinforce in the 2000s what Herzberg and his colleagues posited in the 1950s. Many researchers have tested and made conclusions similar to Herzberg's original work.

***Culture*.** Some researchers have used Herzberg's two-factor theory to test motivation in different cultures. Culture plays a key role in how people perceive what motivates them (Matei & Abrudan, 2016; Snelgar et al., 2017). What motivates one group of people may not necessarily motivate a different group. Snelgar et al. (2017) discovered marked differences in the levels of intrinsic motivation between South Africans and Germans. However, in both countries, Snelgar et al. determined intrinsic motivation levels outpaced extrinsic motivation levels.

Ahmad (2018) determined the people of India place more value in the extrinsic rather than intrinsic factors. Ahmad also noted the value placed on extrinsic factors might stem from the depressed economic state of India. Matei and Abrudan (2016) declared that in its current state, Herzberg's two-factor theory contains no validity in terms of Romanian culture. In terms of culture, masculine cultures focus on money and achievement, whereas feminine cultures focus more on work-life balance and relationships (Matei & Abrudan, 2016; Snelgar et al., 2017). People grow up with different values based on what the people around them value.

Economic climate. Some researchers have attributed the importance of extrinsic versus intrinsic motivators on the economic climate of the studied location. For instance, Ahmad (2018) noted that in the depressed economic state of India, employees valued extrinsic over intrinsic motivators. Fareed and Jan (2016) also noted a preference of extrinsic over intrinsic motivators in Pakistan, which also lacks wealth. In countries such as Romania (Bercu & Onofrei, 2017) or South Africa and Germany (Snelgar et al., 2017) that have decent economic conditions, the people value intrinsic over extrinsic motivators. The more material possessions people have, the less they need or may want.

Industry. Some researchers have used Herzberg's two-factor theory to explore what motivates employees based on the industry in which they work. Kotni and Karumuri (2018) determined in the retail sales segment in India, employees preferred extrinsic over intrinsic motivators. Fareed and Jan (2016) claimed bankers in Pakistan prefer extrinsic of intrinsic motivation. On the other hand, Bercu and Onofrei (2017) stated civil servants in Romania prefer intrinsic over extrinsic motivators. Employees may choose their job field based on the values they already possess.

It is difficult to say which factor truly determines whether intrinsic or extrinsic factors play a bigger role than the other. Different studies from the same country attribute the preference of one set of factors over the other to culture, economic climate, and industry segment. In the end, both intrinsic and extrinsic factors shape motivation. Additional studies that control for different factors could aid in narrowing the leading causes for the different preferences between extrinsic and intrinsic factors (Bercu & Onofrei, 2017; Kotni & Karumuri, 2018; Snelgar et al., 2017).

Rival Theories

Not all researchers would agree Herzberg's theory adequately addresses the topic of employee motivation. Jing, Shuwen, and Zaidi (2017) contended Herzberg presented an incomplete theory. Matei and Abrudan (2016) concluded Herzberg's two-factor theory does not apply to research in Romania because of the cultural context of the primary factors Herzberg listed as motivators and hygiene factors.

However, Matei and Abrudan (2016) did agree with Herzberg's basic premise that employee satisfaction stems from intrinsic and extrinsic factors, but the factors are reversed in Romanian research. As with any theoretical lens that a researcher intends to use, the researcher must ensure the lens and its constructs align with the research aims.

Hierarchy of needs theory. Maslow developed his hierarchy of needs theory in 1943 (Aanstoos, 2018). A psychologist like Herzberg, Maslow (1943) attributed motivations at work to the basic human needs, unlike Herzberg et al. (2017) who attributed motivation at work to attaining rewards and incentives. Researchers can use either theory to view the variables within their own study so long as the theory constructs align with the research variables.

Maslow (1943) identified five levels of needs that must be fulfilled in order from the most basic to the most complex, and a person's motivations fall within their current need. The five levels consist of (a) physiological, such as the need to eat, sleep, and reproduce; (b) safety, such as shelter and the need to be free of physical harm, (c) love, such as the need to connect with others and have meaningful relationships with friends and family; (d) esteem, such as stability, respect, and achievement; and (e) self-

actualization in that a person must do what they feel they were meant to do to feel satisfied (Maslow, 1943). Within the hierarchy, a lower need must be met for the motivation to shift to the next higher need. Without food and rest, a person will leave safety to satisfy their hunger. Maslow's theory presents both strengths and weaknesses as it pertains to Herzberg's two-factor theory.

Maslow's theory would explain why in studies such as Ahmad (2018) and Fareed and Jan (2016), employees in depressed economies would prefer extrinsic motivators such as additional compensation. Additional finances allow the individual to provide food and shelter for themselves and their families. However, Maslow's theory fails to explain why some people choose a job that provides more intrinsic motivation, while the extrinsic factors make life more difficult.

Renard and Snelgar (2015) noted many nonprofit workers would take jobs with pay well below the market rate because of the opportunity to do good or to make a difference, which are intrinsic job motivators. Rahimi, Divsalar, Rezvani, Aramoon, and Pourranjbar (2016) used Maslow's hierarchy of needs theory as their theoretical framework and noted lifeguards work in hazardous conditions but still seek the higher-order motivators. Based on Maslow's hierarchy, people should not seek higher-level needs when the basic needs remain unfilled.

Helbling (2018) contended Maslow's hierarchy of needs theory contains some merit, but researchers have used a flawed theory since 1959, nearly 60 years. Jyothi (2016) suggested Maslow's theory in the professional environment may apply to different life stages rather than immediate needs. As employees mature, their needs shift from

material to philosophical.

Maslow's work influenced many other scientists such as Herzberg, Vroom, and McClelland to research human motivations. While Maslow (1943) decided motivation existed in a hierarchy, Herzberg et al. (2017) developed their theory with respect to multiple factors existing simultaneously. Maslow, Herzberg, Vroom, and McClelland each developed their theory based on their own observations and the conditions of the time in which they conducted their research.

Expectancy theory. Like Herzberg, Vroom felt no good model existed at the time to measure workplace motivation. Vroom developed the expectancy theory in 1964 (Hoffman-Miller, 2019), around the same general time frame as Herzberg's two-factor theory. Vroom's expectancy theory suggests people derive motivation based on the expected return of their efforts (Baciu, 2017). In expectancy theory, Vroom developed the construct of *motivational force* as the product of *expectancy*, *instrumentality*, and *valence* (Lloyd & Mertens, 2018).

The three variables in expectancy affect each other dependent on the individual person. Expectancy is when the employee believes a certain amount of effort will result in the desired outcome (Beiu & Davidescu, 2018). Instrumentality is when the employee's belief that if they achieve the desired outcome, they will receive the reward (Lloyd & Mertens, 2018). Finally, valance refers to the employee's desire for the expected outcome or reward (Baciu, 2017).

Expectancy theory depends on how much someone wants something and how likely the chance they will receive it given a certain behavior (Beiu & Davidescu, 2018).

People may be willing to sacrifice certain comforts or needs found in Maslow's hierarchy of needs if they have a enough of a chance to get something they really want. Vroom's expectancy theory involves both intrinsic and extrinsic components in the instrumentality and valence factors (Beiu & Davidescu, 2018). Herzberg's two-factor theory and Vroom's expectancy theory offer two different views that include both intrinsic and extrinsic factors. However, while Vroom looked at motivation as a combination of all the factors, Herzberg claimed the presence of the extrinsic factors does not increase motivation.

Self-determination theory. Deci and Ryan provided a different perspective on motivation with the self -determination theory. *Self-Determination and Intrinsic Motivation in Human Behavior* (Deci & Ryan ,1985) stemmed from Deci and Ryan's collaborative works on motivation in the 1970s and 1980s (Terry, 2013). Deci studied under Vroom but developed his early works based on the works of White and de Charms (as cited in Terry, 2013). Deci and Ryan posited both intrinsic and extrinsic factors play a role in motivation, but as extrinsic rewards increase, the effect of intrinsic motivation to complete the task decreases (Olafsen, Niemiec, Halvari, Deci, & Williams, 2017). Balancing intrinsic and extrinsic motivation may challenge organizational managers.

Self-determination theory contends that motivation derives from a balance of the employer and employee. The level of engagement and motivation of the employee comes from within, but the employer may conduct activities that can positively influence the employee (Osborne & Hammoud, 2017). In self-determination theory, the extrinsic factors revolve more around achieving desired outcomes such as obtaining status, but the

theory truly centers on three factors of intrinsic motivation: autonomy competence, and relatedness (Ju, Ma, Ren, & Zhang, 2019). Autonomy or self-regulation means the individual has the ability to choose a certain course of action (Ross & Barnes, 2018). Competence is the construct in which a person feels the decisions they make will affect the outcome of a situation (Ju et al., 2019). Relatedness occurs when the individual can connect with others whom they trust and value (Groen, Wouters, & Wilderom, 2017). Employers need to find a balance between ways to increase motivation and the needs of the organization as it pertains to the three factors of self-determination theory.

Herzberg et al. (2017) would contend the extrinsic factors are a necessity, whereas Deci and Ryan (1985) might say the extrinsic factors interfere with satisfaction. Deci and Ryan's theory says the introduction of extrinsic rewards for things a person finds intrinsically rewarding will make the task less intrinsically satisfying (Terry, 2013), while Herzberg's theory states a lack of extrinsic factors will cause dissatisfaction. Both two-factor theory and self-determination theory include that satisfaction comes from intrinsic factors. However, the two-factor and self-determination theories differ on the role of extrinsic factors. Two-factor, hierarchy of needs, expectancy, and self-determination theories all include intrinsic and extrinsic motivation as constructs for measuring the level of employee satisfaction.

Measurement

Choosing the most appropriate measurement tool for a study will impact the validity of the results. Measuring satisfaction and motivation challenges researchers because of the various instruments and outside factors that can affect results (Feather,

2015). However, the benefits of measuring motivation and job satisfaction can benefit organizations due to the costs associated with recruiting and training new employees. Because each study contains unique factors the researcher wants to explore, each survey or measurement device may need customization to fit the parameters of the study (Liu & Wohlsdorf Arendt, 2016). Crutzen and Peters (2017) noted that even successful measurements instruments might not fit every study. Several successful measurement instruments already exist.

Surveys. Researchers use surveys as a way to collect data from research participants. Quantitative researchers use surveys as a primary means of data collections (Saunders et al., 2016). Researchers can use online surveys to collect data from difficult to reach participants more quickly and cost-effectively than traditional methods (Cotteleer & Wan, 2016). Moreover, researchers using online surveys provide a convenience to the participant because the participant can complete the survey anywhere that has an internet connection, which may help with response rates (Ostrow, Penney, Stuart, & Leaf, 2017). M. Liu (2017) found nonresponses decreased using online surveys compared to face-to-face surveys. Researchers also save time using digital data because the participant is typing in the information rather than the researcher (Ostrow et al., 2017). Staats, Lohaus, Christmann, and Woitschek (2017) used an online survey to gather information on truck drivers' working conditions. Overall, using online surveys saves time and money for the researchers, while providing more convenience and perceived anonymity to the participants.

Researchers must be cautious when using archival data. A data set may not

appropriately depict a given construct essential to the research initiative (Barnes, Dang, Leavitt, Guarana, & Uhlmann, 2015). Careful selection of variables may allow the researcher to effectively align the study with the available data (Barnes et al., 2015). Cheng, Song, and Li (2017) and Tian, Yu, and Zhang (2017) both used the 2014 Chinese Employer-Employee Survey (CEES) for their studies. Researchers can use secondary data to complete successful studies. For this study, the partner organization had already collected the appropriate data, which I analyzed to find the trends.

In the context of this study, no single instrument exists to measure the independent and dependent variables. A researcher may benchmark single questions across different surveys (Hartebrodt & Chtioui, 2016). The UWES-9 and the Job Satisfaction Survey (JSS), both recognized measurement instruments, contain identical questions to the independent variable questions from this study. Using employee surveys allows researchers to retrieve data from normal activities. Cheng et al. (2017) used the 2014 CEES, an employee survey, to explore how middle managers affect firm performance. With this study, the employees already take an annual survey, which makes the data already available without inconveniencing or creating unusual circumstances for the participants.

Work & Well Being Survey. Researchers use the Work & Well Being Survey (UWES-9). Schaufeli and Bakker (2004) designed the original UWES with 24 questions to measure worker engagement characterized through vigor, dedication, and absorption with burnout having a negative effect. Schaufeli and Bakker parred down the survey to 17 questions to increase the psychometric properties of the instrument. Schaufeli,

Bakker, and Salanova (2006) allowed the UWES to be reduced again by another eight questions, thereby producing the UWES-9.

Kulikowski (2017) examined 21 studies that employed different versions of the UWES and concluded the UWES-9 surpassed the UWES in validity and reliability. Engagement may not directly predict performance; however, Shuck, Zigarmi, and Owen (2015) linked engagement to motivation using the UWES-9 instrument and self-determination theory as their theoretical lens. While not perfect, researchers commonly use the UWES-9 as an instrument to evaluate employee engagement.

Job Satisfaction Survey. Researchers around the globe use the Job Satisfaction Survey (JSS) as an instrument when measuring employee job satisfaction. Spector (1994) developed the JSS to measure nine aspects of employee satisfaction, which includes (a) pay, (b) promotion, (c) supervision, (d) benefits, (e) contingent rewards, (f) operating procedures, (g) co-workers, (h) nature of the work, and (i) communication (Batura, Skordis-Worrall, Thapa, Basnyat, & Morrison, 2016). While researchers recognize the JSS as a valid instrument when looking at employee satisfaction and motivation, the JSS may not apply to all situations. In a validation study by Batura et al. (2016), the researchers decided that as a whole, the JSS applied, but lacked some crucial context.

Human Resources

The human resources personnel play an important role in the success of failure of a business. Business demands change quickly and often, and organizational leaders need to have appropriate strategies to adapt (Asci, 2017). Human resources help to set and

monitor the policies of the organization. Strategic human resources management (SHRM) provides recruiting strategies to attract a group of talented employees that provide a strategic advantage to the organization (Asci, 2017; Eneh & Awara, 2016).

According to Asci (2017), the pool of available skilled talent is expected to shrink over the coming years. Strategic human resources management strategies are critical for an organization to grow (Eneh & Awara, 2016; Sawitri & Muis, 2014). Human resources act as the first line in the battle for acquiring and keeping talent. Human resources must analyze and understand their effect on the organization.

Human resource managers and recruiters need to remain agile in the constantly changing business environment without losing quality within the hiring process. Moore (2017) showed humans lack the ability to accurately predict performance potential in other people without standardized objective measures and would argue the current process is inefficient. Moore suggested truly objective measures such as aptitude tests and scoring structured interviews, resumes, and references with predetermined criterion. Moore also noted interviewers should use the average score to pick the best candidate rather than an open debate. Human resources personnel need strategies in place to effectively contribute to the organization.

Retention. Retention of employees closely relates to recruiting. Many of the same issues that make an employee stay or leave a company are likely to dissuade or attract an employee to that same organization. Employees who fit well into the organization can potentially achieve greater satisfaction, while employee turnover can decrease others' satisfaction (Gonzalez & Rivares, 2018). The reputation of an

organization matters to employees and affects job satisfaction (Tripathi & Pandey, 2017). Job satisfaction directly affects turnover intention (Frederiksen, 2017; Lee, Yang, & Li, 2017; Tripathi & Pandey, 2017). Organizational leaders can review current retention and employee feedback as a way to attract other employees to the firm.

An organization could actively use employee satisfaction surveys to aid in their recruiting efforts. Frederiksen (2017) developed a model that would allow organizations to predict which employees would stay and which would quit based on personnel files and employee satisfaction surveys. Employee turnover costs money in various ways to include loss of productivity in vacant positions.

Frederiksen (2017) would allow an organization to hire prior to the employee self-terminating through the power of his predictive model. In addition to increasing recruiting efforts for specific jobs, the organization could better plan for the succession of key positions (Frederiksen, 2017). Leaders who get ahead of employee losses could aid their organizations in maintaining staffing levels and in turn, performance and morale.

Driver turnover. In transportation organizations, driver turnover dominates human resource personnel's priorities. According to McNally (2018), driver turnover reached 89%, up 2% over 2017, for large transportation companies. Truck drivers move 70% of freight in the United States (Swartz et al., 2017). Transportation organizations depend on their drivers, so they must ensure they either can reduce turnover or provide a steady supply of new drivers.

Work conditions. Many variables affect employee stress and in turn employee satisfaction and motivation with truck drivers. Many truck drivers spend long periods of

time away from their families and friends (U.S. Department of Labor, Bureau of Labor Statistics, 2019a), in addition to the inherent hazardous working conditions (Swartz et al., 2017). In 2017, 840 truck drivers died from work-related causes, the highest among all occupations, which equates to 16% of all work-related fatalities in the United States (U.S. Department of Labor, Bureau of Labor Statistics, 2019a). In the same time frame, 47,860 nonfatal injuries were reported, which was the second-highest occupation and equated to a little over 4% of all injuries reported in the United States (U.S. Department of Labor, Bureau of Labor Statistics, 2019a). Truck drivers find themselves away from their families in extremely dangerous situations, which likely cause great amounts of stress and concern.

Truck drivers fall short in many of the areas other occupations might take for granted. Truck drivers have higher rates of disease, obesity, and poor dietary habits (Staats et al., 2017). Furthermore, drivers report a lack of understanding or caring from their employers in regards the health risks (Staats et al., 2017). Indian and U.S. truck drivers feel underappreciated and overworked (Mittal, Udayakumar, Raghuram, & Bajaj, 2018). The lifestyle can create a feeling of isolation and loneliness, which can lead to high levels of psychological stress for the driver (Williams, Thomas, & Liao-Troth, 2017).

Furthermore, Cardoso, Fulton, Callaghan, Johnson, and Albert (2018) noted physical and psychological factors, such as fatigue and coping mechanisms are closely linked in professional drivers. Hatami, Vosoughi, Hosseini, and Ebrahimi (2019) found team drivers experience less stress and in turn, fewer instances of depression than single

drivers. The link between physical and psychological factors could prompt carriers to show more care for their drivers. High levels of stress and feeling unappreciated or uncared for can decrease job satisfaction and motivation to perform well for the organization. Vulnerable employees mean that transportation organizations will have to compete for employees by showing they care for the drivers' well-being.

Competition. A vast number of truck transportation companies exist in the United States, from small fleets with a few trucks to the largest companies with thousands of trucks. The U.S. Department of Labor, Bureau of Labor Statistics (2019a) predicted a growth in truck driver jobs of 5.8% between 2016 and 2026, in addition to the already shortage of qualified drivers and drivers expected to retire over the next few years. The number of transportation organizations coupled with the driver shortage creates a highly competitive environment to try to attract truck drivers.

Trucking companies must also contend with government regulations. The U.S. government put rules surrounding hours of service for drivers, which means a single driver can no longer complete the same number of hours per day as they had previously (Mittal et al., 2018). The hours of service regulations create a need for additional drivers to move the same amount of cargo. The pressure from regulations may help shape the deciding factors for drivers because some organizations may push drivers to the maximum to satisfy customer orders, while others may adopt a more safety-conscious policy (Swartz et al., 2017). Organizational leaders must choose the best balance of policies to still meet legal requirements, customer demands, and driver satisfaction.

***Recruiting*.** Several researchers noted that it is difficult to maintain hiring levels and quality candidates. C. F. Brown (2017) reviewed the strategies manufacturing companies use to hire skilled labor and found that despite the profitability of the industry, manufacturing companies still struggle to hire qualified workers. Castellano (2016; as cited in Asci, 2017) illustrated that even with perpetually high global unemployment rates, many organizations still struggle to recruit the correct talent when necessary. Organizational leaders need to understand the effect of having appropriate strategies in place to attract qualified candidates.

The reason why organizations struggle to attract the correct candidate may be due to not understanding the relationship between different hiring factors and then having appropriate strategies in place to do so. Hill (2017) cited Nonprofit HR's 2016 survey of 443 organizations in which the second biggest staffing concern is not being able to find qualified candidates. The results of the survey showed that in larger organizations, 41% of them did not have formal recruiting strategies, and 59% of them did not have formal recruiting budgets (Hill, 2017). The numbers declined with medium and smaller companies (Hill, 2017). The lack of formal strategies demonstrated some organizations clearly do not understand the beneficial effects of properly crafted plans.

Recruiting Methods

Different organizational leaders develop their hiring strategies and requirements around different expectations. While still necessary, education alone does not necessarily predict successful job performance (Patterson et al., 2016). Not every position requires advanced education, and many positions can utilize on the job training. People value

different things. There must be an alignment of personal and organizational values for an employee to function properly and to achieve success within a role.

Russell and Brannan (2016) noted in their study that the participant company emphasized the organizational mission and values above skills in written documents and personal encounters in their recruiting strategy. Organizations can achieve better performance by selecting appropriate employees from the beginning by using the strategies of value-based recruiting (Patterson et al., 2016). Organizations have at their disposal, a variety of different recruiting strategies, which vary in complexity and cost.

Advertising. Transportation organizational leaders can use advertising as a method to attract qualified candidates for their job openings. An organizational leader can broadcast certain policies to the public to attract the specific types of workers they want to employ (Ali, 2016). Organizations need to explain the policies to employees and candidates as to how the policies benefit everyone (Ellemers & Rink, 2016). By broadcasting equitable policies, an organization attracts all employees and becomes the type of place people seek out for employment (Ali, 2016). Many employees in the modern job market look for reputable and socially responsible employers.

Brand recognition affects candidate choice when selecting an organization. Many organizations strive to be the employer of choice by selecting personnel that live the brand because employees that exhibit personality and performance in contrast to the brand can adversely affect organizational image (Russell & Brannan, 2016). Effective branding of an organization constantly occurs when an organization presents its core values and brand promise in recruiting advertising.

Organizational leaders must also present truthful and complete information about their company and job positions. Ellis, Skidmore, and Combs (2017) supported the notion that an accurate job preview determines a significant portion of job satisfaction. The candidate enters into employment with an organization already knowing what to expect in terms of responsibilities, values, and culture. Organizational leaders can advertise items known to create high job satisfaction within their recruiting efforts.

Early-career employees are likely to change organizations in higher numbers than some other demographics based on job satisfaction (Lee et al., 2017). People who are actively looking for new organizations are looking for things such as environment, work-life balance, and professional growth (Lee et al., 2017). An organization with a successful recruiting strategy could target these early-career employees to change companies. Early-career employees are essential to a company looking to create strong and steady growth opportunities (Lee et al., 2017). Organizational leaders should not limit themselves to a single type of advertising.

Traditional. Traditional recruiting involves many classic methods. Some methods may include community bulletin boards and newspapers (Dalessandro, 2018). Newspaper advertising may include regional or national newspapers (Rafaeli et al., 2005). However, newspaper recruiting may cost organizations a high per hire cost. Rafaeli et al. (2005) found an average cost of $22,652 per employee to hire 23 employees, which represented 3.2% of the traditional media applicant pool. The cost to hire through traditional methods does not have a high yield but has a high cost to hire

before the organization ever starts training the new employee. Organizations have more options to attract potential employees as the world becomes more connected.

Digital. Organizations can utilize digital recruiting and selection to provide flexibility. Flexible recruiting strategies allow scalability based on current demand without added costs (Lam & Hawkes, 2017). Changing from analog to digital recruiting and hiring processes provides a better candidate experience and has the potential to reduce costs for the organization for recruiting and selection (Lam & Hawkes, 2017). For the Shell Oil Company, before implementing a digital recruiting strategy, time to hire consistently showed up on candidate feedback as a negative (Lam & Hawkes, 2017). Large or expansive organizations could benefit from utilizing digital recruiting to improve the candidate experience from the beginning.

Digital recruiting in the 2010s business environment involves a variety of options. Many employers recruit passively through online job posting sites or actively using social media sites to recruit potential employees. Utilizing digital technologies helps employers reach the newer generation of potential candidates, because of millennials' comfortability and preference of using the internet over classic print media (Dalessandro, 2018). Furthermore, viewing social media sites allows employers to better evaluate prospective candidates' skills and relationships (Ashuri & Bar-Ilan, 2017; Duffy & Schwartz, 2018). Organizations can use digital methods to provide better access and communication with potential employees when used in conjunction with other proven methods.

School partnerships. Outside of actual advertising, organizations can utilize various other methods to attract potential employees. One would expect, higher levels of

education will produce higher quality employees (Benos & Karagiannis, 2016). Some companies are using a pipeline structure to facilitate personnel management. The organization will facilitate education and training programs.

Flynn, Pillay, and Watters (2016) performed a study in Australia in which they followed specific companies' processes on how they acquired certain types of talent. In this instance, the company partnered with local high schools to develop a curriculum to help students prepare for the workforce. The company also created on the job training programs and internships to help provide the last pieces of knowledge the new employees would need.

There are other instances within the United States in which local community colleges will partner with major companies to provide job skill training. These types of programs work well when the job is technical and labor-intensive. An internship is a good tool for helping a prospective employee learn the organization's inner working before applying for full-time employment (Dailey, 2016). However, the intern may not be any more skilled than they already were because of the type of work they will most likely have performed during the internship. Many employers give interns grunt work or short-term projects to work on, which generally does not relate to anything a regular employee might be doing.

Many of the same methods used to recruit college athletes can be used to recruit employees into an organization. Richardson and Gabbin (2016) identified simple strategies, such as personal communication, continuous interaction, and campus visits increase the chances a recruit will choose one organization over another because it is

difficult to say no once a personal relationship has developed. Organizational recruiters can increase their odds of success by developing relationships with instructors and getting in front of recruits early (Richardson & Gabbin, 2016).

Schools and businesses can mutually benefit each other with appropriate collaboration. Many people assume the relationship forms more like a supplier-consumer relationship (Stroud & Hopkins, 2016). While this may be the case in the beginning, the relationship can grow over time to where both parties involved benefit equally. Open communication both directions allows the relationship to flourish (Stroud & Hopkins, 2016).

Benos and Karagiannis (2016) suggested investment in higher education in one area affects areas that border the location where the education occurs. Benos and Karagiannis recommended governments take the lead on education investment. However, business organizations that take the lead are likely to reap the benefits because of goodwill from the community. The organization invests in the well-being and standard of living of the community, and in return, the community members will support the organization.

Vocational. Vocational schools provide a valuable resource to employers of skill-based employees by preparing students for specific work tasks (Hasanefendic, Heitor, & Horta, 2016). Business-school relationships create mutual benefits for the students and business organizations as well. The business organizations gain value from having employees who have already gained experience in a given field before truly entering into the workforce, while the students gain life skills and have the opportunity to test out

different vocations to see if it is something they truly enjoy (Lee, Hope, & Abdulghani, 2016).

A close collaborative relationship between the vocational school and the business organization supports both parties involved. The vocational school becomes relevant to the student while the business organization potentially receives qualified candidates. Both parties must collaborate closely to create an effective relationship (Flynn et al., 2016). As an industry changes, the educational process must evolve as well. A business can affect curriculum changes by aligning with a trade school. Businesses gain a recruiting advantage by aligning with a trade school that can help guide prospective employees with the appropriate skill sets toward the sponsoring business.

Nonvocational. Many leaders still lack identified methods to fill nonvocational positions. The skillsets required by each organization will vary depending on the type of industry the company operates within. However, one common theme among many current organizations is the need to diversify and expand globally. Leaders who expand into new markets may help a company capitalize on unused manufacturing capabilities or to reach new untouched customer segments (Dyer, Godfrey, Jensen, & Bryce, 2016). An organization must have a workforce that has the talent and knowledge required to expand. Too many similar thinking employees in the same organization may not have the necessary prerequisites to facilitate expansion. Globalization requires that organizational leaders promote cultural sensitivity because not all customers and employees have the same wants and needs (Northouse, 2016).

Organizations that broadcast diversity attract more qualified employees from both

the perceived majority and minority (Ali, 2016). Even candidates from the majority demographic will perceive the company has better market performance and is a more equitable work environment. While traditional diversity may help in some instances, companies listed as having the best diversity programs do not automatically perform better financially (Filbeck, Foster, Preece, & Zhao, 2017). With nonvocational positions, organizations need to find a recruiting method that allows them to attract the talent they need to maintain a competitive advantage.

Temporary agencies. Temporary employment agencies represent another resource for organizations to obtain access to potential employees. Many workers utilize temporary placement agencies as a way to try new fields of interest or to fill gaps between jobs, while end-user organizations use the placement agency to screen and train employees that potentially fit the required role (Zeitz, Blau, & Fertig, 2009). Managers of temporary placement agencies rely heavily on their *bring a friend* initiatives for maintaining a steady flow of workers for placement into other organizations (Gonzalez & Rivares, 2018). Temporary agencies provide a potential hiring model for other organizations through their use of referral recruiting.

Referral Recruiting

Word-of-mouth or referral recruiting refers to any method of verbal recruiting that involves direct communication between two individuals. In a study by Gonzalez and Rivares (2018), the researchers noted employee referral programs aided in job satisfaction and retention because current employees are likely to recommend people who they feel fit the job. In addition, strong social support aided in job satisfaction of the new

employee. M. Brown, Setren, and Topa (2016) also noted better employee-firm match from referral hiring resulted in longer tenure and persistence. Employee referral recruiting provides various benefits to the organization.

Recruiting cost. Employee referrals provide a cost-effective method to hire new employees. Organizations may or may not have formal employee referral programs in which they may or may not offer incentives for qualified referrals when they hire the referred candidate, and that person stays employed for a predetermined amount of time. Rafaeli et al. (2005) noted the organization in their study hired 13.27% of referred candidates at no cost because no incentive program existed for employee referrals. Even those organizations that offer a referral bonus may fair better than organizations that utilize traditional recruiting methods.

Pieper et al. (2018) found a referral bonus of $3,500 prompted little more referrals than a $1,500 referral bonus. Using Rafaeli et al. (2005) cost of traditional recruiting methods of $22,652, offering a referral bonus of $1,500 still yields a more cost-effective solution to organizations. However, offering a referral bonus may decrease organizational attractiveness for the referred employee as they may feel like a financial incentive for the referrer (Stockman, Van Hoye, & Carpentier, 2017). Managers of organizations should find the best mix of referral incentives that fit their needs and the needs of their employees to increase referrals.

Performance. Referred workers stay longer, perform better across some metrics, and produce higher profits per worker (Burks et al., 2015). However, Pieper (2015) found that in instances when the referrer leaves the organization, the referral also

becomes more likely to leave voluntarily. Organizations that rely heavily on referrals would have to monitor employee satisfaction of the tenured employees to prevent a mass exodus of employees.

Burks et al. (2015) showed that referred employee truck drivers tended to perform similarly to the employee that referred them, including the potential for accidents. Ekinci (2016) noted employees later in their careers or who are close to a promotion would likely bring the best referrals to the organizations because they have no competing interests with new employees. Trucking organizations could potentially screen referral candidates based on the employee who submitted the referral.

Increasing referrals. In addition to understanding the benefits of referral recruiting, organizations must understand how to increase the likelihood of gaining referrals from their employees. Increasing affective commitment from employees increases the likelihood of gaining employee referrals (Bloemer, 2010). Galletta et al. (2019) identified affective commitment as a positive job attitude where the employee feels an attachment or connection with the organization.

Bloemer (2010) found organizations could increase affective commitment though getting employees involved with appropriate decision making for their position and sharing knowledge about the future direction and vision of the organization. Organizational leaders might easily increase employee commitment through small gestures. Organizational managers can also create a semi-anonymous referral environment in as far as the hiring manager is concerned, to create a sense of *fair play* as to the influence of the position of the referrer (Derfler-Rozin, Baker, & Gino, 2018).

Employees may feel threatened by candidates referred by higher positioned staff, or they may not feel their own referrals are taken seriously. The semi-anonymous referral levels the field, so an employee feels their candidate has an equal chance.

Transition

The high truck driver turnover rate of 89% in 2018, combined with a shortage of truck drivers in the United States has put many organizations in a tough spot. Transportation organizations can use referral recruiting as a cost-effective solution compared to the more traditional methods of posting advertisements in newspapers or digital methods in which the organization must still go out and search for applicants. Productive employees will likely refer other productive candidates to the firm.

Grounded in Herzberg's two-factor theory, the purpose of this quantitative correlational study was to examine the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations. The targeted population consisted of archival employee survey data from licensed Class A truck drivers from a transportation organization headquartered in Illinois. Transportation organization leaders may use the potential insight obtained from this study to build strategies to effectively increase driver referrals, resulting in better productivity, reduced recruiting costs, and increased profits.

Section 1 contained the foundation sub-sections of the study, including the (a) problem and purpose statements, (b) nature of the study, (c) research question, (d) hypothesis, (e) theoretical framework, (f) operational definitions, (g) assumptions, limitations, and delimitations, (h) significance of the study, and finally (i) review of

academic literature. I discussed the general business problem and the specific business problem in the problem statement, and then included information about the research method and design in the purpose statement. The literature review contained an in-depth analysis of the theoretical framework and the constructs, compensation, benefits, and intrinsic factors, followed by the various recruiting options available to organizations.

Section 2 includes in-depth details about (a) my role as the researcher, (b) the participants, (c) research methodology and design, (d) the population and sample, (e) ethical research, (f) the data collection instrument, collection technique, and analysis, and (g) the validity of the study. In Section 3, I present the findings of my study and then recommendations for action and further research. I discuss the potential applications of my findings to professional practice and the potential implications for social change. I close with my reflections as the researcher and provide a conclusion for the overall study.

Section 2: The Project

Section 1 contained the informational sections on the foundation of the study. Section 2 includes in-depth details about (a) my role as the researcher; (b) the participants; (c) research methodology and design; (d) the population and sample; (e) ethical research; (f) the data collection instrument, collection technique, and analysis; and (g) the validity of the study. In Section 1, I detailed the *why* for this study; in Section 2, I focus on the *how*.

Purpose Statement

The purpose of this quantitative correlational study was to examine the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations. The independent variables were compensation, benefits, and intrinsic motivators. The dependent variable was potential referral candidates. The targeted population consisted of licensed Class A drivers in Illinois. The implications for positive social change could include equipping business leaders with information on motivational factors for recruiting drivers through referrals, thereby increasing community employment levels.

Role of the Researcher

My role as the researcher included collecting and analyzing the archival data, evaluating the hypotheses, and answering the research question. Leichsenring et al. (2017) concluded researchers must take all available precautions when collecting and analyzing the data to avoid introducing their own biases into the research. I collected my data through already archived sources to ensure I did not introduce my own biases into

the research. I also entered the data with no changes in the SPSS program and ran the appropriate analysis. As it relates to this study, I had no previous experience in any field related to the research topic that could potentially bias my findings. I did not know the participants who completed the archived survey, and the organization anonymized the data.

A congressional commission charged with reviewing the use of human test subjects in scientific research authored *The Belmont Report* (U.S. Department of Health and Human Services, 1979). *The Belmont Report* contains three tenets that pertain to the treatment of research participants and provides guidelines on ethical research for researchers and institutional review boards (IRBs) as opposed to a set of laws that must be strictly adhered to (U.S. Department of Health and Human Services, 1979). The three tenets include (a) respect for persons, (b) beneficence, and (c) justice (Adashi, Walters, & Menikoff, 2018).

Respect for persons means acknowledging a person has the right to make decisions about participation in a study without coercion (U.S. Department of Health and Human Services, 1979). In the collection of the archived source, the organization had an obligation to ensure the participants had accurate and complete information about the benefits and risks of participating in a study. The participants who completed the survey did so of their own free will knowing the organization intended to analyze the data to create a better environment for the employees.

Beneficence means ensuring the researcher will not unnecessarily harm the participant (U.S. Department of Health and Human Services, 1979). The Walden

University IRB and I had to determine if the benefits outweighed the risks in the study. The survey data was anonymized, which presented no risk of harm to the participants.

Justice means ensuring the burden of who participates in research study balances out with who benefits from the research (U.S. Department of Health and Human Services, 1979). No one group should disproportionately bear the burden of participating in research if all groups benefit from that research. The participants of the study could potentially gain directly from this study if the research showed a significant relationship among the variables; the organization may likely implement policies to improve the quality of work-life for the employees. In addition, the findings of the study may prompt other organizations to implement changes.

New potential ethical challenges emerge, such as the risk to beneficence as technology continues to advance (Miracle, 2016). Researchers present modern data in the form of electronic files, which are more susceptible to breaches (Friesen, Kearns, Redman, & Caplan, 2017; Miracle, 2016). My data in this study came with no identifying information for the survey participants. Data sharing when the data have no identifying information does not usually pose much of a risk of harm to the participant (Ross, Iguchi, & Panicker, 2018). In addition, I will store the data on a thumb drive in my personal safe for a period of 5 years.

Participants

I examined archival data from the company's 2018 employee pulse survey. Therefore, I did not have direct interactions with the participants. I included eligible responses from the respondents of the survey. The company opened its survey to all

employees. However, the company only provided me with the data that included the responses from licensed Class A truck drivers. The company did not require participation in the survey as a requirement for continued employment, so each participant participated of their own choosing. The company uses equal opportunity hiring practices and employs all races, genders, and legal ages in their driver pool; however, I did not receive any demographic data for the participants. The eligibility criteria for this study included participants who possessed a Class A driver's license and worked full time for the Illinois organization.

To gain a commitment to access the data, I contacted the company's director of diversity and inclusion, who was the data guardian to the survey data. The data guardian protects the interests of the participants (Brannan et al., 2016). The director agreed to me having access to the data with assurances the company's real name be excluded from the study. No additional stipulations applied.

The researcher must ensure the data applies to the research question and the measurements are valid when working with secondary data (Ellram & Tate, 2016). To ensure validity, I carefully read each question and compared it to current literature, my research question, and variables. Also, I ensured the data used an appropriate level of measure for scientific research.

My partner organization already collected survey data, which reduced the challenge of me gaining access to and building a relationship with the participants. Utilizing secondary data provides a wide range of already available information (Prada-Ramallal, Roque, Herdeiro, Takkouche, & Figueiras, 2018) and allows researchers to

gain additional insights through a different approach to analysis of the data (Sun & Lipsitz, 2018). Using archival data helped me to avoid the challenge of collecting data from a difficult to reach occupation. Truck drivers spend a lot of time on the road away from home (U.S. Department of Labor, Bureau of Labor Statistics, 2019a), and gaining complete surveys on my own posed a significant challenge.

Research Method and Design

Regardless of the method and design used in a study, the overall use of different research methods has helped researchers to answer the questions of various phenomena for centuries (Cerniglia, Fabozzi, & Kolm, 2016). The conclusions a researcher reaches reflects the quality of the data collected; good data reflect good conclusions (Cerniglia et al., 2016). Regardless of the method used, researchers aim to ensure the study applies to a broader audience than just the participants (Morgan, 2018; Rutberg & Bouikidis, 2018). Researchers could consider picking the method and design for the strengths it provides and not because they consider another method weak (Morgan, 2018). A study that fits within a laboratory or within one specific organization is of little use to anyone else. I selected the research method and design to answer my research question effectively.

Research Method

Researchers choose between quantitative, qualitative, and mixed methods when conducting research (Saunders et al., 2016). Researchers use the quantitative method when testing the relationship between two or more variables by using numerical data (Saunders et al., 2016). Empirical data allow researchers to use the past performance of a phenomenon to build a model to try to predict future performance (Cerniglia et al., 2016).

I used the quantitative method because I was looking to see if a relationship existed among the variables: compensation, benefits, intrinsic motivators, and potential referral recruiting in transportation organizations.

Researchers traditionally use qualitative research to further discovery (Park & Park, 2016) by relying on the perceptions and lived experiences of the participant (Rutberg & Bouikidis, 2018). The data from a qualitative study consist of words, text, images, and video portrayed as themes rather than numerical data (Bansal, Smith, & Vaara, 2018). I did not select the qualitative method because I isolated individual numerical variables to determine the presence of correlation rather than looking at the phenomenon.

The mixed-methods study is a mixture of both qualitative and quantitative research methods (Saunders et al., 2016). In a mixed-methods study, either the qualitative or the quantitative portion can occur first, and either method can take precedence, or they can maintain equality in priority (Thiele, Pope, Singleton, & Stanistreet, 2018). I did not select the mixed methods because using mixed methods would require both a quantitative and qualitative component, and I did not have a qualitative component in this study because I did not rely on the perceptions and lived experiences of the participants.

Research Design

Within the quantitative method exist three overarching designs: experimental, quasi-experimental, and nonexperimental (Rutberg & Bouikidis, 2018). In both the experimental and quasi-experimental designs, the researchers incorporate a control or

intervention to try to establish a cause and effect relationship. In the nonexperimental design, researchers look at past events or the participant's recollection to determine if a relationship between variables exists (Rutberg & Bouikidis, 2018). Researchers choose experimental and quasi-experimental designs over nonexperimental designs to increase internal validity (Podsakoff & Podsakoff, 2019). Two criteria must occur for a study to qualify as experimental: manipulation of the independent variable and random assignment of groups (Podsakoff & Podsakoff, 2019).

Researchers classify studies as quasi-experimental when (a) the independent variable receives manipulation, (b) there is no random assignment to groups, and (c) a control group or multiple measurements exist for the same group (Podsakoff & Podsakoff, 2019). The experimental and quasi-experimental designs were not suitable for my study because I did not have a manipulation component to my study, nor did I have randomly assigned groups, control groups, or multiple measurements of the same group.

Nonexperimental designs may have different results from experimental or quasi-experimental designs, such as in Gorenca and Kuro (2018), when the researchers had a 6% difference between a quasi-experimental design and a nonexperimental design while testing the same variable. However, nonexperimental designs are appropriate when the data are historical (Rutberg & Bouikidis, 2018) or the researcher cannot manipulate the independent variable (Podsakoff & Podsakoff, 2019). I chose the nonexperimental design because I used secondary data with which I could not manipulate the variable.

Within the nonexperimental category, I considered the correlational and causal-

comparative designs. The correlational design is appropriate when examining multiple variables in one population (Curtis, Comiskey, & Dempsey, 2016) when the researcher has no influence over the variables and is not looking to make an inference as to cause and effect (Lappe, 2000). Researchers use a correlational design when they cannot control or manipulate the variables; however, the researcher must still choose appropriate variables to ensure the research question gets answered (Curtis et al., 2016). The correlational design was appropriate for this study because I intended to look at the relationship between multiple variables in a single population.

The causal-comparative design is appropriate when comparing the means of the dependent variable of two or more mutually exclusive groups, when the independent variables are categorical and not experimentally manipulated (Schenker & Rumrill, 2004). As with the correlational design, the causal-comparative design does not demonstrate causation (Brewer & Kuhn, 2010; Reio, 2016). I did not choose the causal-comparative design because I did not intend to compare the means of two groups.

Population and Sampling

The target population consisted of licensed Class A truck drivers from a large transportation company in the state of Illinois. The population aligned with the overarching research question because all the survey data came from drivers already employed at the organization. According to the U.S. Department of Labor, the state of Illinois employed 70,920 heavy truck drivers in 2017 (U.S. Department of Labor, Bureau of Labor Statistics, 2019a). At the time of the survey in 2018, the organization employed over 1,400 drivers. Every driver in the organization had an equal opportunity to complete

the survey. More than 500 drivers completed the survey.

Researchers use sampling as a way to test a portion of the population so the results can be generalized across the entire population (Wilson, 2014). A lack of proper sampling procedures may limit the generalizability of a study (Sykes, Verma, & Hancock, 2018). Sampling methods include probabilistic and nonprobabilistic sampling (Setia, 2016). For my study, I used probabilistic sampling. The probabilistic sampling method allows everyone in the population an equal opportunity to participate in the study (El-Masri, 2017b).

Probabilistic sampling allows for a greater chance at generalizability across the entire population (Wilson, 2014). Probabilistic sampling occurs in one of five ways (a) simple random, in which every person in the population has an equal chance for selection, (b) stratified random, in which the overall population is split into stratum based on unique characteristics, and then samples are pulled from each stratum, (c) systematic random in which the researcher picks a starting point and counts a repeating interval from the start point, (d) cluster random in which the researcher picks participants from multiple larger groups, typically geographical, and (e) multi-stage which may consist of various of the previous methods combined (Setia, 2016). In the survey I used, the host company invited every person in the population to complete the survey. Therefore, every person in the population frame had an equal 100% chance to participate.

The number of survey responses fell within a manageable level, so no data needed trimmed. However, if I needed to trim the data, I could have used the simple random method to select my data using a computer randomization program. One disadvantage of

probabilistic sampling occurs within simple random sampling when the randomization unintentionally excludes a specific group within the population (Setia, 2016). In my study, the survey data came with no demographic data, so I did not know if one group was under-represented.

Nonrandom sampling may increase bias and reduce validity in a study (Sykes et al., 2018). Nonprobability sampling includes five methods of selection (a) accidental or convenience, in which the researcher picks participants based on who is available at the time, (b) quota, in which the research uses accidental methods but ensures the sample population includes the different diversity included in the overall population, (c) snowball, in which the researcher uses participants to find more participants, (d) purposive, in which the researcher uses their own knowledge of the population to select appropriate candidates based on the research aims, and (e) self-selected, in which the participants select themselves for the study, such as a call for volunteers (Wilson, 2014). The researcher can never fully eliminate selection bias when using nonprobability sampling, but he/she can take steps to reduce the effects by ensuring the selected sample population closely resembles the overall population (El-Masri, 2017a).

I needed to ensure I had an adequate sample size to support the generalizability of my study. Tabachnick and Fidell (2007) presented a formula to calculate an appropriate sample size, which says to take 50 plus 8 times the number of independent variables. I had three independent variables, so using Tabachnick and Fidell's formula; I needed a minimum of 74 participants for my study. Another method of determining sample size involves the use of G*Power software (Faul, Erdfelder, Buchner, & Lang, 2009). To use

G*Power to determine the sample size I assumed a medium effect size (*f* =.15), *a* = .05, and three predictor variables, which identified I needed a minimum sample size of 77 surveys to achieve a power of .80. Researchers increase sample size as a way to increase the power of the study (Meyvis & Van Osselaer, 2018). Increasing my sample size to 161 surveys increased my power to .99 as depicted in Figure 1.

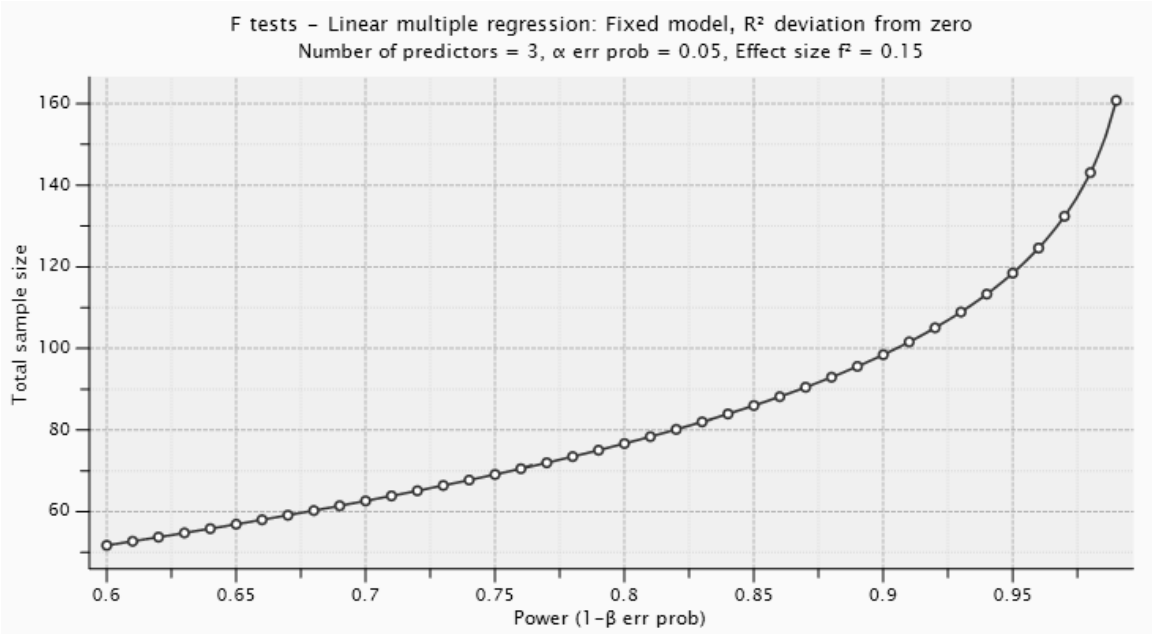

Figure 1. Power as a function of sample size.

Ethical Research

All researchers have a responsibility to maintain the highest ethical standards in their research regardless of method, design, and data type (Lobzhanidze, Chikhladze, Pitskhelauri, & Tsiskaridze, 2016). The researcher has a primary responsibility to protect the participants' personal information and do no harm (Friesen et al., 2017). The informed consent process involves the researcher allowing capable people or people's representatives the right to decide if they will participate in a research study while having all the known facts, benefits, and risks (U.S. Department of Health and Human Services,

1979).

I did not have any contact with the participants, and the data did not have any identifying information included. The partner organization did not provide any incentives or coercion for their employees to participate in the survey and I did not provided any incentive to the partner organization to provide me with use of their archival data. I received a consent letter from the participating organization.

The partner organization could withdraw their consent letter at any time should they deem it necessary. I still had an obligation to protect the identity of the organization by not including any information that may allow someone to determine the identity of the participating organization. To protect the name of the partner organization, I always referred to it as the company or the organization. To protect the data sets, I will store the data on a thumb drive in my personal safe for a period of 5 years, at which time the data will be destroyed. My IRB approval number was 08-01-19-0723569

Data Collection Instruments

The data originated from the partner company's 2018 Pulse employee satisfaction survey. Historically, the partner company conducted the employee satisfaction survey every two years. For the survey data of this study, I used the smaller 2018 Pulse Survey because it included the most current data that still included the questions that were relevant to compensation, benefits, intrinsic motivators, and potential referral candidates. The organization changed vendors in 2018 and decided to conduct a survey every year thereafter. The vendor company that collected the data was a consultant that conducted employee surveys throughout the United States with a proven track record and a deep

customer base for which to provide comparison data.

The pulse survey contained more questions than what I requested access to. Schaufeli et al. (2006) took their original survey from 24 questions down to seven, creating the UWES-9, to increase the reliability of the instrument. Measuring the appropriate variables is more important than the number of questions. For the purpose of my study, the data consisted of only six questions (Appendix A) that directly related to the independent variables of compensation, benefits, intrinsic motivators and dependent variable potential referral candidates.

Scales of Measurement

The format of the survey contained a Likert-type scale. Likert scales range from as low as 3 measures and up (Wu & Leung, 2017), with the most commonly used scales of 5 and 7 (Martin, Roman, & Gonzaga, 2018). Leung (2011) noted no significant differences in standard deviation, mean, correlation, or reliability when using the different Likert scales of 4, 5, 6, and 11. The participants of my study answered the questions on a 6-point Likert-type scale that ranged from 1 to 6, where 1 was *strongly disagree*, and 6 was *strongly agree*.

Reverse coding data has positive and negative attributes associated with it. Some researchers believe reverse coding helps to eliminate response bias from the participants by asking similar questions in the reverse manner (Weijters, Geuens, & Schillewaert, 2009). However, reverse coding can also have adverse effects on the study results.

Suarez-Alvarez et al. (2018) noted four adverse effects: (a) different respondents will have different cognitive abilities, (b) combining reverse and regular items will

reduce respondents variability in their answers, (c) combined items reduce the tests psychometric properties, and (d) reverse items produce statistically different scores from standard items. No questions from the secondary data I used were reverse coded. The partner company kept the online employee satisfaction survey straight forward given the different cultural and educational background of all the employees.

Employee perception of compensation. The first independent variable of my study, compensation (extrinsic), was a nominal scale of measurement. Question 1571024 (Appendix A) comprised the question for this variable. A 6-point Likert-type scale, ranging from 1 = *strongly disagree* to 6 = *strongly agree*, was used to calculate a total score.

Employee perception of benefits. The second independent variable of my study, employee perceptions of benefits (extrinsic), was a nominal scale of measurement. Question 1571024 (Appendix A) comprised the question for this variable. A 6-point Likert-type scale, ranging from 1 = *strongly disagree* to 6 = *strongly agree*, was used to calculate a total score.

Employee perceptions of intrinsic motivational factors. The third independent variable of my study, intrinsic motivational factors (intrinsic), was a nominal scale of measurement. Questions 1571031 and 1571032 (Appendix A) comprised the questions for this variable. A 6-point Likert-type scale, ranging from 1 = *strongly disagree* to 6 = *strongly agree*, was used to calculate question scores. A total score was derived by summing the answers to the questions.

Potential referral candidates. The dependent variable of my study, potential referral candidates, was a nominal scale of measurement. Questions 1571033 and 1571035 (Appendix A) comprised the questions for this variable. A 6-point Likert-type scale, ranging from 1 = *strongly disagree* to 6 = *strongly agree*, was used to calculate question scores. A total score was derived by summing the answers to the questions.

Strategies to Address Reliability and Validity

The establishment of external validity in my study involved the inclusion of all complete participant data in the population from which the partner organization provided. I conducted a power analysis using G*Power Version 3.19 to help determine the appropriate minimum sample size. To ensure reliability, I identified any incomplete data points and removed them so as to not skew any of the variables.

Researchers must be cautious when using archival data. A data set may not appropriately depict a given construct essential to the research initiative (Barnes et al., 2015). Careful selection of a variable may allow the researcher to effectively align the study with the available data (Barnes et al., 2015). A researcher may benchmark single questions across different surveys (Hartebrodt & Chtioui, 2016). Marks, AL-Ali, Majdalawieh, and Bani-Hani (2017) noted higher educational institutions commonly benchmark questions across various satisfaction surveys. I compared the UWES-9 and the Job Satisfaction Survey (JSS), both recognized measurement instruments, as benchmark surveys because they contained identical questions to my independent variable questions.

Data Collection Technique

I used archival data to try and answer the research question of; what is the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates? Some research methods include the use of archival data and online surveys (Park & Park, 2016). Some researchers struggle to collect adequate data for their research projects (Cotteleer & Wan, 2016). In recent years, many companies have collected large amounts of data that can provide researchers with opportunities for studies (Barnes et al., 2015; Cotteleer & Wan, 2016). Researchers can save time and money through the use of archival data (Ellram & Tate, 2016) and online surveys (Minnaar & Heystek, 2013).

I contacted my partner organization to gain permission to access their archival data. The data contained responses from an online survey the company issued as part of their annual employee satisfaction survey. Online surveys include both advantages and disadvantages to the researcher. Researchers will use online surveys to collect data on vast or hard to reach participants in a more time-efficient and cost-effective way (Cotteleer & Wan, 2016).

The disadvantage of online survey stems from low response rates commonly as a result of (a) a lack of prior notification, (b) incorrect email addresses, and (c) spam filters or the perception of spam (Cotteleer & Wan, 2016). The partner organization issues several notices before the distribution of the survey. The survey coming from an internally approved vendor organization negates the prospect of invalid email addresses and spam filters from preventing potential participants from completing the survey.

Data Analysis

I analyzed the data in this study to answer the following research question and to test the hypotheses:

RQ: What is the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates?

H_0): There is no significant relationship among compensation, benefits, intrinsic motivators, and potential referral candidates.

H_1): There is a significant relationship among compensation, benefits, intrinsic motivators, and potential referral candidates.

Multiple Linear Regression

Researchers use multiple linear regression to analyze data from experimental and nonexperimental studies when the data include more than one independent variable (Green & Salkind, 2017). One of the primary uses for multiple linear regression involves using it to predict the dependent variable based on the input from the independent or predictor variables (Nimon & Oswald, 2013). Social researchers commonly use multiple linear regression to build predictive models (Alhamide, Ibrahim, & Alodat, 2016). Multiple linear regression contains R, R^2, and an adjusted R^2 which a researcher can use to evaluate how well the independent variables predict the outcome of the dependent variable (Green & Salkind, 2017).

Bellamy, Wang, McGee, Liu, and Robinson (2019) used multiple linear regression to determine which independent variables predicted their dependent variable in a study about stress, training, and job satisfaction. However, using multiple linear

regression to rate the importance of each predictor variable within a model poses more of a challenge (Nimon & Oswald, 2013). For the purposes of my study, I was interested in looking at the strength of the correlation between the independent and dependent variables, and not the importance of each predictor within the model. In addition, satisfaction with pay, benefits, intrinsic satisfaction, and the likelihood that an employee will recommend someone for employment were all variables measured on an interval scale and therefore made multiple linear regression an appropriate analytical tool for this study.

Other Analytical Models

I had to choose an appropriate analysis model from many possibilities. Each model I considered did not fit my study for one reason or another. My goal was to look at the correlation between the independent and dependent variables. Researchers can use linear regression to look at the relationship between the predictor and criterion variables in both experimental and nonexperimental studies (Green & Salkind, 2017). One method is bivariate linear regression. In bivariate linear regression, the researcher only includes one independent and one dependent variable (Green & Salkind, 2017). I had three independent variables in my study and therefore I needed to use a model that allowed for multiple independent variables.

I considered binary logistic regression as a potential analysis model. Binary logistic regression can predict outcomes of the dependent variable for multiple independent variables (Schlechter, Syce, & Bussin, 2016). To use binary logistic regression, the dependent variable must have only two potential outcomes (Eekhout, van

de Wiel, & Heymans, 2017), such as yes and no or high and low. Binary logistic regression was not appropriate for my study because my dependent variable contained an interval variable that did not fit within the binary logistic regression test.

Data Cleaning

Data cleaning involves ensuring the data included in the study provide appropriate information (Dai et al., 2018; Vivek, Beatty, Dalela, & Morgan, 2014). Incomplete data may adversely affect the quality of a study (Mahanta, Choudhury, & Dey, 2018). Researchers often have to contend with the issue of missing data (Dai et al., 2018; Mahanta et al., 2018). One way researchers deal with missing data involves estimating new data for the missing points; however, not all data can be recovered in this manner (Dai et al., 2018).

Researchers can also remove entire response sets of incomplete data, such as Vivek et al. (2014) study, in which the researches removed incomplete online surveys prior to their analysis. I structured my study to examine the relationship between the independent and dependent variables rather than just counting overall responses. Therefore, I needed complete data sets from each participant to achieve my desired results. To account for missing data, I did not include any entries in which the participant failed to complete the entire survey. I received my archival data set in an MS Excel format, so I filtered out any blank cells using Excel's data filtering features.

Assumptions

Researchers must meet certain assumptions for each statistical test performed in research (Owen, 2018). Researchers reporting the status of the assumptions allows

readers to evaluate the usefulness of the results for their needs (Hickey et al., 2019). Several assumptions underlie the multiple linear regression model which include (a) linearity of the residuals rather than other fits such as quadratic or exponential, (b) homoscedasticity or that each predictor variable contributes equally to the noise in the data, (c) independence of the errors or that the same errors are not repeated, (d) normality in the distribution of the errors, (e) multicollinearity in that more than two independent variables do not appear to have excessive linearity, and (f) extreme outliers do not create undue influence on the remaining points (Hickey et al., 2019).

Researchers could use a nonparametric test to evaluate data when a violation of the parametric assumptions occurs (Nahm, 2016; Vetter, 2017). Nonparametric tests do not require normal distribution assumptions (Vetter, 2017). However, nonparametric tests contain less statistical power than parametric tests, especially in smaller sample sizes (Nahm, 2016).

Researchers could use bootstrapping to estimate additional data points when the sample does not meet the assumptions of the statistical test (Font, 2016; Shurden, Santandreu, & Shurden, 2016). Researchers can also use bootstrapping to address violations of the assumptions. I ran a normal distribution test in SPSS, to determine if the assumptions of my study had been violated. I added bootstrapping to the data to minimize effects for violations of the assumptions.

Inferential Results

Researchers use descriptive and inferential statistics to analyze and report their studies. Researchers test hypotheses and show relationships between the data and the

research question using inferential statistics, which include tests such as the ANOVA and T-test (Zhang, Zhao, & Wang, 2016). Researchers summarize data using descriptive measures such as the *mean, median, mode,* and *standard deviations* (George, Chiba, & Scheepers, 2017; Kaliyadan & Kulkarni, 2019). Researchers use scatter plots to show visual representations of the data, which will show outlying data points (Oro, Neto, Mafioleti, Garcia, & Neumann, 2016).

I used the Statistical Packages for Social Science (SPSS), version 24.0, to conduct a multiple linear regression analysis. I transferred the existing Excel data directly into SPSS. Researchers use SPSS broadly across the social sciences to analyze data (Jin & Qi, 2018). Researchers can use SPSS to process both descriptive and inferential statistics, as demonstrated in Akyol and Demir's (2019) study. Researchers can also use SPSS to run reliability checks on the questions within their surveys (Jin & Qi, 2018). SPSS was an appropriate tool for my study because I was able to (a) easily transfer the data using the copy/paste feature from excel to SPSS, (b) conduct a multiple linear regression test in SPSS, and (c) check the reliability of my data using SPSS's normal distribution test.

Study Validity

The two types of validity I addressed were internal and external. Internal validity refers to the scientific rigor of the study, while external validity refers to the ability to apply the findings from the sample population to the general population (Pound & Ritskes-Hoitinga, 2018). Scholars must ensure reliability and validity when conducting their research. Reliability in research refers to the concept that data collection technique

and instrument will deliver consistent results each time they are used (Saunders et al., 2016). Scholars achieve validity when they can effectively measure the intended concept with the chosen instrument (Saunders et al., 2016), and then demonstrate the generalizability of the construct (Yin, 2018). In the end, I had to ensure my findings aligned with the method and design chosen.

Internal Validity

I conducted a quantitative nonexperimental correlational study. Threats to internal validity do not exist in correlational studies. Rather, correlational studies include threats to statistical conclusion validity in the form of three factors (a) reliability of the instrument, (b) violations of the assumptions, and (c) inappropriate sample size (Garcia-Perez, 2012). Violations of the three factors may result in inflated Type I and Type II errors, which could render the results of the study invalid (Koziol & Bovaird, 2018). Statistical conclusion reliability refers to researchers' ability to make inferences about the variables in a study (Bainbridge, Sanders, Cogin, & Lin, 2017).

Reliability of the instrument. The reliability of the instrument helps determine study validity. Even though a previous study may have successfully used a specific instrument, this does not mean the same instrument fits a different study (Crutzen & Peters, 2017). Stephanie and Gustomo (2015) used the same vendor organization for survey data. However, Stephanie and Gustomo measured employee engagement, utilized a 5-point Likert-type scale, and did not include their SPSS reliability statistics in the published paper.

Researchers in social sciences regularly use Cronbach's alpha to assess the reliability of an instrument in their study (Crutzen & Peters, 2017; Vaske, Beaman, & Sponarski, 2017). Cronbach's alpha ranges from a low of zero to a high of 1.00, where a higher number represents more reliability and a score between .65 and .80 would suffice as acceptable (Vaske et al., 2017). However, researchers do not necessarily agree on a proper scale. Crutzen and Peters (2017) set the scale where scores of ≥ .50 are poor, ≥ .60 are questionable, ≥ .70 are acceptable, ≥ .80 are good, and ≥ .90 are excellent. I ran Cronbach's alpha using SPSS on the data from my study to assess the reliability of my survey instrument. According to the more stringent scale, I looked for a score between .70-.90 for compliance. The SPSS software gives an analysis of which questions, if removed, would increase the Cronbach's alpha to an acceptable level.

Assumptions. The proper use of statistical tests relies on meeting certain assumptions within the data sample. Nonparametric tests contain few assumptions (Trajkovski, 2016; Vetter, 2017), and are less desirable to researchers because they contain less statistical power (Nahm, 2016; Trajkovski, 2016). Several common assumptions for parametric statistical tests include (a) the errors are normally distributed, (b) homogeneity of the variance or that each variable contributes equally, (c) the data are fitted linearly rather than other fits such as quadratic, (d) independence in that the same errors do not continue to occur, (e) more than two independent variables do not have excessive linearity or multicollinearity, and (f) extreme outliers do not overly influence the results (Hickey et al., 2019; Kozak & Piepho, 2018; Owen, 2018).

I intended to use a parametric test and I so had to meet the aforementioned assumptions. I ran a normal distribution test in SPSS, which returned a P-P plot, scatter plot, and collinearity statistics to provide me with lens to view violations of the assumptions. A normal P-P plot visually depicts linearity of the residuals (Parke, 2013). Researchers can determine homoscedasticity and extreme outliers by using scatter plots (Oro et al., 2016). Moreover, researchers can use the collinearity statistics that determine the degree of multicollinearity by using either the coefficients or the VIF (Parke, 2013). Sample size can affect whether the normality assumptions hold up to testing.

Sample size. Smaller sample sizes may adversely affect the normality assumption (Trajkovski, 2016). Researchers see a higher Type II error rate in addition to lower statistical power in studies with smaller sample sizes (Kozak & Piepho, 2018). Researchers can use a power analysis to determine a sample size that meets the researcher power goals without spending excessive time and money collecting more data than necessary (Green & MacLeod, 2016). To reduce potential violations to the normality assumption and to reduce the likelihood of a Type II error, I conducted a power analysis using Faul et al.'s (2009) G*Power Version 3.19 to help determine the appropriate sample size by assuming a medium effect size (f =0.15), a = 0.05, and three predictor variables, which identified I needed a minimum sample size of 77 surveys to achieve a power of .80 (see Figure 1). Therefore, to reduce the likelihood of Type II errors, I needed to obtain at least 77 usable samples.

External Validity

External validity in research indicates whether the conclusions drawn from the data apply to other areas. The ability to apply one set of findings to another circumstance acts as a critical factor in assessing the credibility of a particular study (Pound & Ritskes-Hoitinga, 2018). A key component for conducting research is adding to the body of existing knowledge. When scholars read a study, they assume the researcher followed recognized practices, and the same concepts should apply to the broader population (Nørreklit, Nørreklit, & Mitchell, 2016). Researchers rely on large population sizes to create valid generalizations (Nørreklit et al., 2016). However, regardless of the sample size researchers should use proper sampling methods to aid with external validity.

Kaplan, Chambers, Phil, and Glasgow (2014) noted several real-world examples from which researchers used large samples and predicted the wrong outcome and smaller sample sizes predicted the correct outcome because of the sampling method employed. When a researcher uses nonprobability sampling, he does not know all of the makeup of the sample and therefore cannot apply the findings to a specific population, whereas in probabilistic sampling the researcher knows the makeup of the sample population because he picked them based on specific attributes (Wilson, 2014). I addressed external validity in my study by using probabilistic sampling. Every driver in the host organization had an equal chance to complete the satisfaction survey. In addition, all the data I used for the study came from the targeted profession of licensed Class A truck drivers from the Illinois-based host organization and should therefore be generalizable to all licensed Class A truck drivers within the region.

Transition and Summary

Using appropriate techniques, practices, and measures enables investigators to ensure the reliability and validity of their study's results. The purpose of this quantitative correlational study was to examine the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations. Section 2 included in-depth details about (a) my role as the researcher, (b) the participants, (c) research methodology and design, (d) the population and sample, (e) ethical research, (f) the data collection instrument, collection technique, and analysis, and (g) the validity of the study.

In Section 3, I present the findings of my study and then recommendations for action and further research. I also discuss the potential applications of my findings to professional practice as well as the potential implications for social change. I close with my reflections as the researcher and provide a conclusion for the overall study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative correlational study was to examine the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations. The independent variables were compensation, benefits, and intrinsic motivators, and the dependent variable was potential referral recruiting. I used a 6-question subset of a larger employee satisfaction survey. In evaluating the data from 581 Class A truck drivers, I used multiple linear regression to analyze the data.

Presentation of the Findings

In the presentation of the findings section, I discuss testing the assumptions, show descriptive and inferential statistics, provide a theoretical conversation about my findings, and then conclude with a summary. The model as a whole was able to significantly predict potential referral candidates, $F(3,562) = 258.323$, $p < .001$, $R^2 = .580$. I rejected the null hypothesis and accepted the alternate; a relationship does exist among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations. I employed multiple linear regression with a sample of 581 licensed Class A truck drivers to address the potential relationship among compensation, benefits, intrinsic motivators, and potential referral candidates in transportation organizations. The confidence interval was 95%. The significance level was 5% throughout this research.

Descriptive Results

The vendor organization ran the survey through June and July of 2018, via an online survey for the partner transportation organization based in Illinois. The partner organization leaders provided only surveys from licensed Class A truck drivers for this study. The number of survey lines totaled 581. I discarded 15 surveys because of incomplete data, which resulted in a total of 566 surveys for analysis, which I transferred from the Excel spreadsheet into SPSS.

Table 2 contains the descriptive statistics for this study, specifically the means and standard deviations. The independent study variables included compensation, benefits, and intrinsic motivators. The dependent variable was potential referral recruiting. Based on a 6-point Likert-type scale, the mean score for satisfaction with compensation was 4.91, indicating most participants showed a high level of satisfaction with their compensation. The score for satisfaction with benefits was also measured on a 6-point Likert-type scale, and the mean score was 4.94, also indicating most participants showed a high level of satisfaction with their benefits. The score for intrinsic motivators was two items measured on a 6-point Likert-type scale and summed. The mean for intrinsic motivators was 9.22, indicating most participants showed a high level of intrinsic motivation. The dependent variable of potential referral recruiting was also two items measured on a 6-point Likert-type scale and summed. The mean for potential referral recruiting was 9.84, indicating more participants were likely to refer another person for employment than not.

Table 2

Descriptive Statistics for Study Variable

Variables	M	SD	Bootstrapped 95% CI	(M)
Compensation	4.91	1.063	4.82	5.00
Benefits	4.94	1.151	4.84	5.04
Intrinsic motivation	9.22	2.335	9.02	9.41
Potential referral recruiting	9.83	2.404	9.62	10.04

Note. N = 566

Reliability Analysis

The study included a single scale of the partner organization's employee satisfaction survey. The portion of the scale I used included six questions using a six-point Likert-type scale. A rating of 1 indicated *strongly disagree,* and a rating of 6 indicated *strongly agree*. No items required reverse coding.

To meet the reliability requirements, the instrument needed an adequate Cronbach's alpha coefficient for internal reliability. Researchers commonly use Cronbach's alpha to test for internal reliability and consistency and look for a score higher than .70 (Borah & Malakar, 2015). I was looking to achieve a Cronbach's alpha coefficient between .70 and .90 for this study. Using SPSS, I determined the instrument for this study resulted in a Cronbach's alpha of .790, well within the required range. The results listed in Table 3 show that the removal of any item would result in lower reliability of the instrument.

Table 3

Reliability Table for Compensation, Benefits, Intrinsic Motivation, and Potential Referral Recruiting

Scale	Number of items	α if removed
Compensation	1	.787
Benefits	1	.766
Intrinsic motivation	2	.680
Potential referral recruiting	2	.665

Note. N = 566

Test of Assumptions

Prior to running the regression testing for this study, I first tested for violations of the statistical assumptions. I included tests for extreme outliers, normality, linearity, observational independence, multicollinearity, independence of the residuals, and homoscedasticity. To mitigate any adverse effects from potential violations of the assumptions, I used bootstrapping with 1,000 samples.

Outliers. Extreme outliers may skew the data by causing excessive influence on the rest of the data (Hickey et al., 2019). I evaluated the normal probability plot (P-P) of the regression standardized residuals (Figure 2), the frequency histogram of standardized residuals (Figure 3), and the scatterplot of standardized residuals and standardized predicted values (Figure 4) via a visual inspection. Researchers can use scatterplots to evaluate assumptions because scatterplots visually depict the data for easy assessment (Green & Salkind, 2017). A single outlier appears in the histogram and scatterplot, indicating a violation of the outliers assumption.

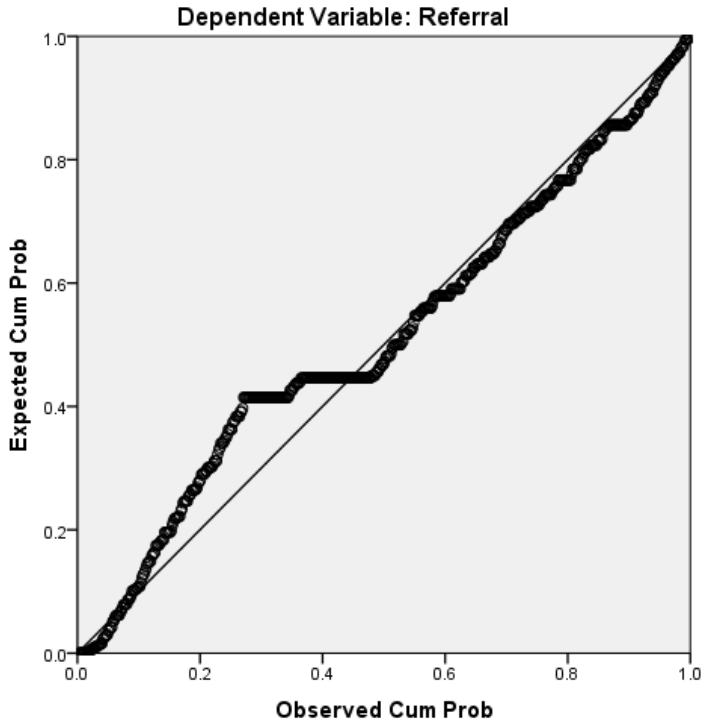

Figure 2. Normal probability plot (P-P) of the regression standardized residuals.

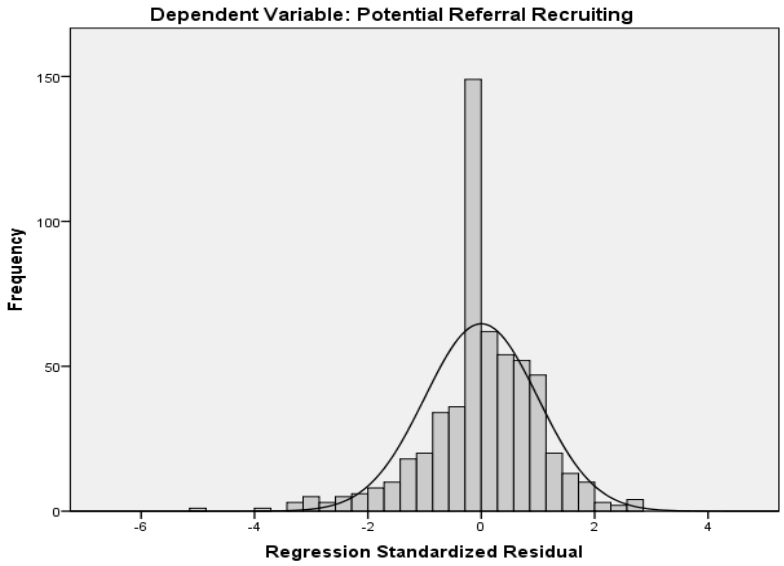

Figure 3. Frequency histogram of standardized residuals.

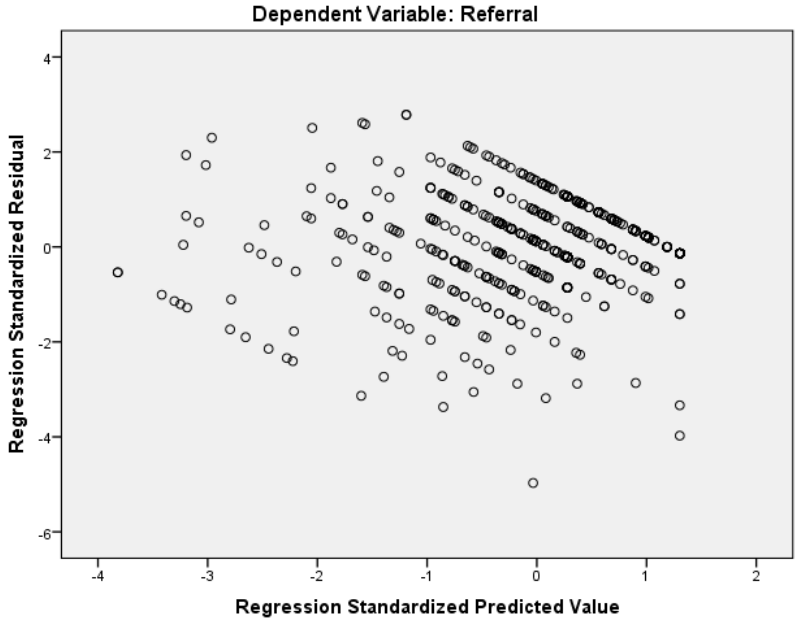

Figure 4. Scatterplot of standardized residuals and standardized predicted values.

Normality. I checked the normality of the data using the normal P-P probability plot (Figure 2) and frequency diagram (Figure 3) for the residuals of the dependent variable. Researchers should use the figures of the residuals rather than figures from the raw data (Kozak & Piepho (2018). In the case of the normal P-P plot, the data appeared to follow a generally straight line from the lower left to the upper right. Also, in the case of the histogram, the data appeared to have a standard bell curve. The inspection of both figures indicates no violation of the normality assumption.

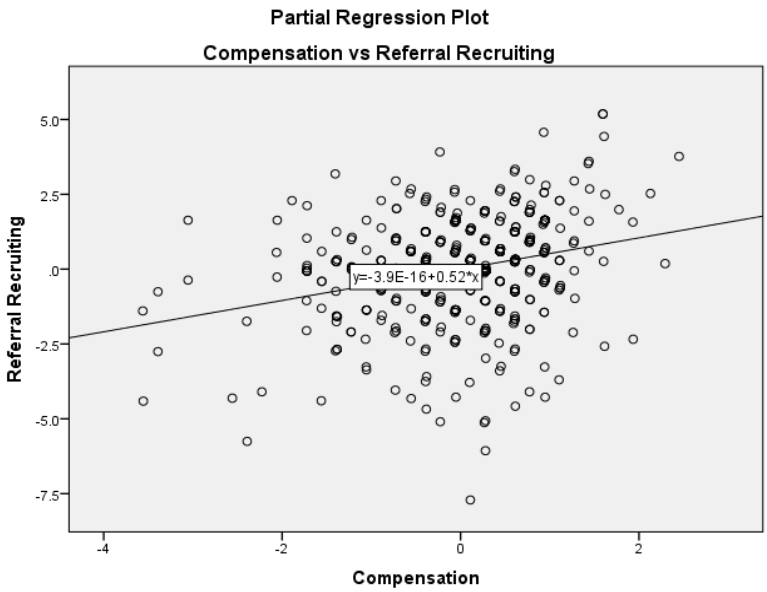

Figure 5. Partial regression plot: Benefits and referral recruiting.

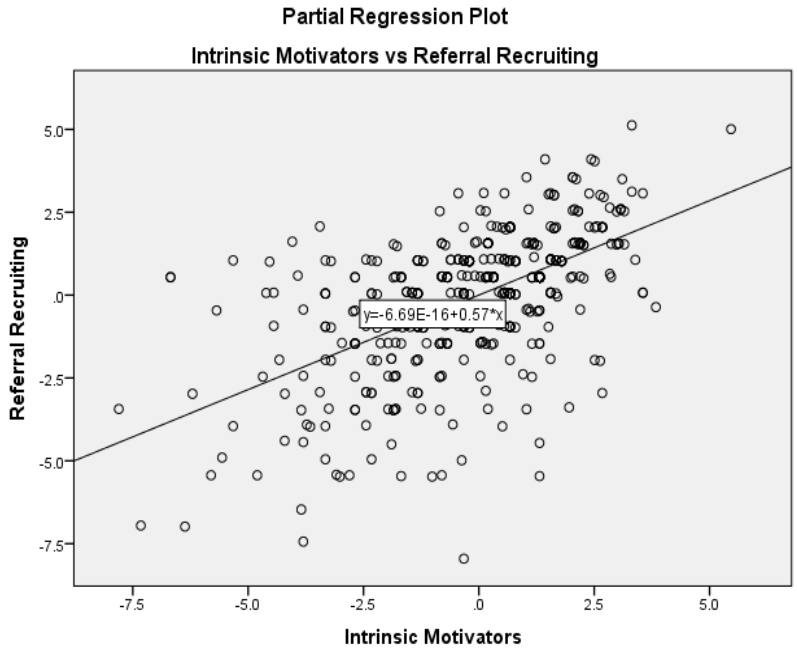

Figure 6. Partial regression plot: Intrinsic motivators and referral recruiting.

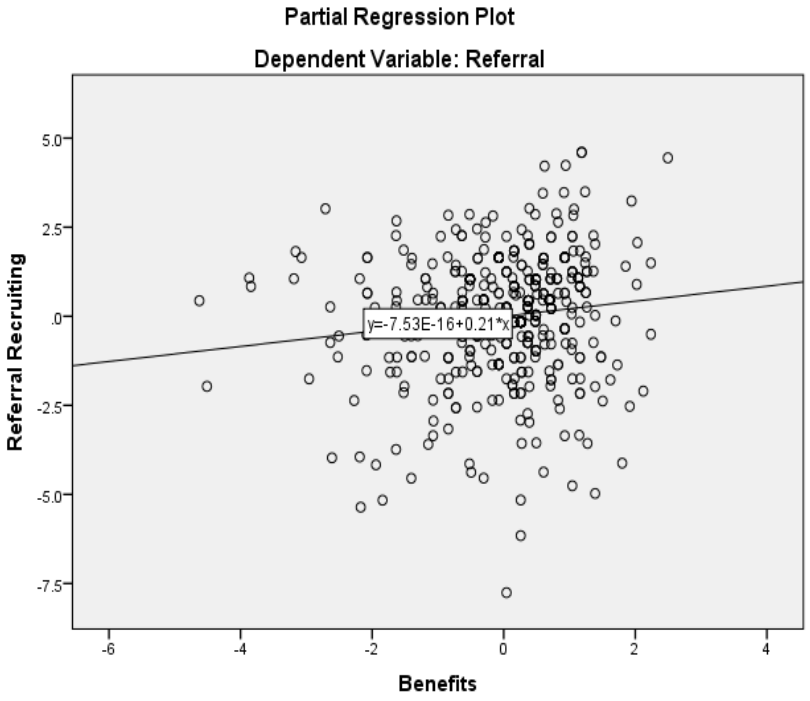

Figure 7. Partial regression plot: Compensation and referral recruiting.

Linearity. I checked the linearity for each of the independent variables prior to running multiple linear regression tests. I used a bivariate scatterplot to assess each independent variable (Figures 5, 6, & 7). Researchers use bivariate scatterplots to visually inspect linearity among variables (Green & Salkind, 2017). Upon visual inspection, each scatterplot appears to form a linear relationship with no indication of curvilinearity. I also included a fit line with each scatterplot as an added measure. The analysis indicates the data meets the assumption for linearity.

Independence of observations. Each observation should be unique and not duplicated. Violating the independence of observations, such as a single participant submitting more than one survey, could potentially invalidate the study results, but a careful data collection plan can alleviate any violations (Zientek, Nimon, & Hammack-Brown, 2016). The vendor organization that collected the survey data followed a technique to prevent duplication of a single survey participant. Each survey participant received a unique invitation link in their e-mail. Once used, the link became invalid and could not be used for a second time. Due to the sampling technique used, I met the assumption of observational independence.

Multicollinearity. I ran tests to detect multicollinearity. Researchers run multicollinearity tests to detect correlation among the independent variables (Farooq, 2016). Researchers use the variance inflation factor (VIF) as one method to detect multicollinearity (Salmeron, Garcia, & Garcia, 2018). When utilizing VIF, researchers consider values greater than 10 to have high collinearity (Salmerón Gómez, García Pérez, López Martín, & García, 2016). Upon running the statistical tests, I obtained VIF values

of 1.618 (compensation), 1.464 (benefits), and 1.460 (intrinsic motivators), indicating this study meets the assumption of multicollinearity (Table 4).

Table 4

Collinearity Statistics

Variable	Tolerance	VIF
Compensation	.683	1.464
Benefits	.618	1.918
Intrinsic motivation	.685	1.640

Independence of residuals. I used the Durbin-Watson statistical test to check the assumption of independent residuals. Researchers use the Durbin-Watson test to test the noise in the residuals for independence (Bercu, Portier, & Vazquez, 2015). The Durbin-Watson test values range from 0 to 4 (Dutcă, Stăncioiu, Abrudan, & Ioraș, 2018), where values between 1 and 3 do not violate the assumptions (Hashim, Nawawi, & Salin, 2014). The data from this study resulted in a Durbin-Watson test score of 1.963, indicating the data meets the assumption of the independence of the residuals.

Homoscedasticity. I addressed the assumption of homoscedasticity by using a scatterplot of the standardized residuals and standardized predicted values (Figure 4). Researchers consider data homoscedastic when the points appear randomly distributed (Belas & Gabcova, 2016). A visual inspection of the scatterplot indicates a nonrandom appearance of patterns running from the upper left to lower right, with excessive points in the upper right and no points in the lower left. The data points formed because 198

participants (35.2%) had the highest possible score in potential referral recruiting, indicating they were very likely to refer their organization as a potential employer to others (at the time of data collection). Therefore, the data did not meet the assumption of homoscedasticity.

Summary of statistical assumptions. In summary, the data met the statistical assumptions of normality, linearity, independence of the observations, multicollinearity, and independence of the residuals. However, the data failed to meet the assumptions of outliers and homoscedasticity. Given the data did not meet all the assumptions, I choose to use bootstrapping of 1,000 samples at 95% confidence, as researchers can use bootstrapping to help reduce the likelihood of drawing incorrect conclusions from the data (de Crom & Rothmann, 2018), because bootstrapping uses the original data to produce new samples (Ahmad, Aleng, Ali, & Ibrahim, 2018). The research question for this study was, “what is the relationship among compensation, benefits, intrinsic motivators, and potential referral candidates?” This research includes a null and alternate hypothesis stating that compensation, benefits, and intrinsic motivators do not and do (respectively) have a significant relationship with potential referral recruiting. I tested these hypotheses with multiple linear regression (Table 5).

Table 5

Regression Analysis for the Predictor Variables

Variable	*B*	SE *B*	β	*t*	*p*	Bootstrap 95% confidence	
						LB	UB
Constant	.964	.353		2.730	.007	.193	1.749
Compensation	.523	.079	.231	6.647	.001	.327	.708
Benefits	.212	.069	.101	3.062	.002	.042	.386
Intrinsic motivation	.570	.034	.554	16.761	.001	.480	.662

Note. Full Model: $F(3,562) = 258.323$, $p < .001$, $R^2 = .580$

Regression Results

The purpose of this research was to examine the relationship among compensation, benefits, intrinsic motivators, and potential referral recruiting. I used the multiple linear regression model in SPSS to examine the relationship among the variables. The model revealed intrinsic motivators ($\beta = .554$, $p < .001$) affected the dependent variable the most, followed by compensation ($\beta = .231$, $p < .001$), and benefits ($\beta = .101$, $p < .002$) (Table 5), while all three independent variables showed significance. The null hypothesis was rejected, and the alternate hypothesis was accepted, stating that "there is a significant relationship among compensation, benefits, intrinsic motivators, and potential referral candidates."

Summary of the Results

The gatekeeper from the partner organization provided me with a data set from their 2018 employee satisfaction survey, which included 566 complete surveys. The data set included questions about the employees' satisfaction with compensation and benefits,

whether the employee felt motivated by the organization, and whether they would refer the organization as a potential employer to others seeking employment. The independent variables were compensation, benefits, and intrinsic motivators, and the independent variable was potential referral recruiting. The results of the regression model, $F(3,562) = 258.323$, $p < .001$, $R^2 = .580$, indicated a significant relationship between the independent and dependent variables (Table 5). While all three variables showed significance, intrinsic motivators had the largest effect.

My study closely reflects the two-factor theory of motivation. Herzberg et al. (2017) stated that extrinsic factors can demotivate the individual, while intrinsic factors will increase overall motivation. Satisfied employees will more likely refer others for employment than unsatisfied employees (Van Hoye, 2013). The measured extrinsic factors of benefits and compensation scores averaged above the midpoint on the scale, indicating that most employees found their benefits and compensation adequate and not demotivating. The results of the study demonstrated that the intrinsic factors contributed to the variance more than benefits and compensation combined.

My findings are supported by the findings of Van Hoye (2013), who found employers could increase referrals by increasing extrinsic and intrinsic motivation for current employees. In alignment with Van Hoye, the results of this study indicated extrinsic factors influence a person's decision to refer someone for employment less than intrinsic factors. Van Hoye noted that financial motivators paled in comparison to the desire to help the company succeed and the potential to increase one's own satisfaction. The findings from this study aligned with Tania (2016) and Kalhoro et al.'s (2017)

findings that both intrinsic and extrinsic factors affect an employee's overall satisfaction, as evidenced through the participants' willingness to refer others to the partner organization. In line with my study, Tania (2016) noted that the participants in the 2016 study rated intrinsic factors more important than extrinsic factors such as compensation, while in my study the intrinsic motivation variable contributed more than the compensation and benefits variables. Kuvaas, Buch, Weibel, Dysvik, and Nerstad (2017) found a positive relationship between intrinsic motivators and positive outcomes. The results of my study demonstrated intrinsic motivators can drive the desired results of the organization.

Not all of this study's results were entirely consistent with the previous literature. Renaud et al. (2017) stated benefits contribute to employee motivation as much as compensation. The results from this study showed that while benefits still significantly contribute to the variance of the referral recruiting variable, benefits still affect the overall outcome much less than compensation and intrinsic motivators. Furthermore, Kuvaas et al. (2017) found a neutral or negative relationship between extrinsic motivators and positive outcomes; however, the results from my study still showed a positive relationship between the extrinsic and referral recruiting variables.

Applications to Professional Practice

The results from this study have direct implications to applied business. Truck driver turnover rates have remained consistently above 70% since 2011 (McNally, 2017), while experts predict the labor market will continue to tighten (Asci, 2017). Organizational leaders can potentially use the results of this study to create better

compensation and benefits packages or manager-employee engagement practices to increase employee satisfaction, thereby increasing referral recruiting.

Organizational leaders could benefit in different ways from the practices recommended to increase employee referrals. Organizational leaders generally spend less money by utilizing referral recruiting over traditional methods (Rafaeli et al., 2005). The reduced spending on recruiting would positively affect the financial standing of the organization. As a secondary benefit, the overall increase in employee satisfaction could potentially reduce turnover and improve the bottom line by not losing productivity and reducing training costs. Leaders could potentially increase their reputation by using some of the savings to reinvest in employee and community programs. Organizational leaders might become the employer of choice within the transportations industry and increase brand recognition by increasing the reputation of the company through community outreach programs.

Implications for Social Change

Increasing driver availability in transportation could positively affect social change efforts. Employment provides a person with a means to maintain independence and personal dignity while feeling connected to others and the community (Serb, Cicioc, Paun, & Funieru, 2016). Employees of organizational leaders who focus on increasing different aspects of satisfaction may experience a better standard of living and refer other candidates. By gaining employment, the referral candidates' standards of living would increase.

If leaders focus on referral recruiting rather than traditional methods, the leaders could reinvest some of the capital savings back into employee programs for increasing wages or benefits. Organizational leaders could hire additional employees without a loss to profits, which would help put money into more workers' hands and potentially make additional goods available to the public. Better referral practices may increase employment levels, which can cause a positive trickle effect within the local economy. Employees may invest themselves in the organization through higher productivity or additional referral recruiting, which could potentially cause a positive snowball effect when the organizations reinvest in the employees.

Most goods in the United States travel at some point on semi-trucks, which licensed Class A drivers operate. Transportation costs directly affect the cost of goods (Azarhoushang, Bramucci, Herr, & Ruoff, 2015). Decreasing the cost of transactions for goods decreases the cost of living, thereby increasing the standard of living for the public (Cebula, Connaughton, & Swartz, 2017). Decreasing organizational expenses may decrease the cost of goods, which makes goods more accessible to more of the population. More variety and quantity of basic needs and luxury goods could potentially arrive at stores faster and cheaper with more available drivers because the cost of traditional recruiting would not transfer to the end-user. Changes in recruiting strategies could have far-reaching positive effects.

Recommendations for Action

The results of this study indicate compensation, benefits, and intrinsic motivation can significantly increase the likelihood that licensed Class A truck drivers will refer their

organization as a potential employer to other people. Transportation leaders consistently compete with each other to hire qualified employees in a tight labor market. I suggest transportation leaders take a structured and targeted approach to capital infusion for referral programs such as sign-on bonuses while reducing traditional marketing campaigns. The results of the data indicated the independent variables affected the model most in order of intrinsic motivators, compensation, and benefits. Focusing on increasing intrinsic motivation should cost organizational leaders the least capital to implement. I recommend expanding the satisfaction surveys to include feedback on increasing intrinsic motivation factors such as achievement, recognition, responsibility, and advancement. I also recommend follow up focus groups so leaders can gain situational context to aid managers in helping employees increase intrinsic motivation. Truck drivers live a rough and isolated lifestyle (U.S. Department of Labor, Bureau of Labor Statistics, 2019a), which may require leaders to purposefully engage employees. I recommend organizational leaders increase value-added compensation or benefits programs by utilizing some of the capital savings created by using less expensive recruiting methods.

I will share my findings with the gatekeeper at the partner organization, and if requested, I will present my findings to the senior leadership. In addition, I will provide a published copy of this study to the organizational leaders. I expect that the leaders would likely disseminate the results of the published study to the appropriate staff within the organization, such as transportation managers, supervisors, driver trainers, and driver recruiters. I hope the leadership staff will take the recommendations to heart and create programs to increase satisfaction within their driver population. If allowed, I would like

to conduct a follow-up study that includes more targeted questions to include actual instances of employees who referred someone else for employment.

Recommendations for Further Research

I recommend replication of the study to see if the results remain consistent with a different sample. Transportation leaders could benefit from future studies by expanding the questions to include actual instances of referral recruiting rather than questions based on theoretical possibilities. Business leaders might gain an even deeper understanding of what factors they should focus on to increase motivation, reduce turnover, and increase referral recruiting by comparing people who have actually referred someone to the independent variables. In addition, organizational leaders could benefit from research when the researchers collect primary data rather than relying on a company-sponsored survey. The secondary data source contained generalized questions, which if narrowed, could provide better insight to researchers and business professionals. The correlational design illustrated a statistical relationship exists among the variables, but based on the histograms and boxplots, most seemed engaged.

The data from this study presented a snapshot in time of the attitudes of current employees. The body of knowledge may benefit from reexamining the data from later years. Also, tracking referrals in the periods following each survey may provide additional insights. I intentionally delimited my study to the Class A drivers in the Illinois-based partner organization to keep the study manageable. Future researchers could expand the population sample by including additional geographical regions, other

employees, or other industries. A broader sample could help illustrate if the results apply to a bigger audience.

Reflections

My corporate work experience has included working in the financial services departments. My original study topic of interest started with examining diversity recruiting based on my experiences working with my international customers. Through companywide conferences, I became aware of the challenges concerning turnover and recruiting in the labor-intensive departments. My experience as a business owner in the construction industry enlightened me to the use of referral recruiting, as my recruiting costs as a business owner were nonexistent. I decided to examine how different motivators affect a person's decision to potentially refer someone for employment, in order to help educate business leaders.

Throughout the DBA process I have developed my processes for conceptualizing and researching a topic. When starting the process, I believed it was obvious people would refer others for employment if the conditions warranted. Constructing my literature review challenged my preconceived notions, such as the amount of referral bonus may not matter or that some people may not refer another person even with a potential bonus. My biggest insight from this data set is that in general intrinsic factors affected the model more than compensation and benefits combined in the decision to refer someone else for employment. I would like to continue along this line of study to take a deeper look into the specific intrinsic motivators that employees referred to.

Conclusion

Based on an annual churn rate of 89% (McNally, 2018), the national average cost per employee for recruiting cost of $3,479 (Gavazza, Mongey, & Violante, (2017), and employing 1,400 drivers, the partner organizational leaders from this study could expect to spend more than $4.3 million per year in driver recruiting. In Rafaeli et al. (2005), the study organization recruiters hired 13% of referrals with no referral bonus. Pieper et al. (2018) found bonuses above $1,500 produced very little additional return. A small time investment by supervisors, managers, and leaders in learning and acting on their employees' specific motivators could potentially increase the intrinsic motivations of the employees, thereby potentially increasing employee referrals and positively affecting the bottom line. Increased employee satisfaction and motivation intended to increase referrals could potentially have an additional positive side effect of reducing the churn rate of the organization, further improving productivity and the bottom line.

Licensed Class A truck drivers play a critical role in the U.S. economy. In 2018, truck drivers moved 71.4% of U.S. freight and accounted for 80.3% of the income generated from U.S. freight (McNally, 2019). The U.S. Department of Labor, Bureau of Labor Statistics (2019b), expects the demand for licensed Class A truck drivers to increase over upcoming years as the demand for goods increases. The organizational leaders who solve the issues of effective recruiting will have a competitive advantage within the transportation industry.

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Appendix A: Company Employee Satisfaction Survey Questions that Align with the Study Variables

Question #	*Question*	*Variable*
15 71024	Overall, the company's* benefit plan meets my (and my family's) needs well	Independent Variable Benefits
15 71025	Compared with other places I might work, I feel I am fairly paid	Independent Variable Compensation
15 71031	The company* inspires me to do my best work every day	Independent Variable Intrinsic
15 71032	The company* motivates me to contribute more than is normally required to complete my work	Independent Variable Intrinsic
15 71033	Given the opportunity, I tell others great things about working here	Dependent Variable
15 71034	I rarely think about leaving the company* to work somewhere else	

71035	15	I would not hesitate to recommend the company* to a friend seeking employment	Dependent Variable
71036	15	It would take a lot to get me to leave the company*	

**Questions modified to protect the identity of the partner organization*