

Navigating the Supply Chain: An In-Depth Analysis of Job Satisfaction, Tenure, and Work-Life Quality in Logistics

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ABSTRACT

Stressful work environments cause low morale, leading to decreased organizational productivity. This quantitative correlational study examined the relationship between work-related quality of life and employees' job satisfaction in the logistics field. The theoretical foundation that frames this study is Maslow's hierarchy of needs and Geert Hofstede's (1980) cultural dimension theory. The Job Satisfaction Survey (JSS) and Work-Related Quality of Life Scale (WR-QOLS) were used as the data collection instruments for this study. Ninety-two participants included employees who currently work in logistics and are members of a logistics social media group. A Pearson correlation coefficient was computed, and there was a significant relationship (.61) between job satisfaction and work-related quality of life among logistics workers.

Keywords: Work-related quality of life, job satisfaction, logistics, employee morale, motivation.

Introduction

A high quality of work-life enhances work performance, commitment, and job satisfaction among employees (Samavatian et al., 2020). The logistics field has attracted the attention of researchers such as Sgarbossa et al. (2020), who studied human factors in production and logistics and noted that new management approaches were needed to overcome future challenges in the industry. Ellram and Murfield (2019) posited that studying buyer-supplier relationships is critical to developing innovative strategies in sustainability and logistics. A scholarly review of the literature shows a lack of research on the human factors affecting sustainability (Ellram & Murfield, 2019). Previous academic researchers have focused on human resource management (HRM), supply chain management skills and competencies, human capital development, valuable logistics managers, and reverse logistics (Goldsby et al., 2019). To bridge the gap in research on human factors and sustainability, factors that quantify the quality of work-life and job satisfaction within the logistics field were examined in this study. A quantitative methodology with a correlation research design was used to examine logistics employees' satisfaction with their jobs and their perceived quality of work life. The data-gathering tools were Paul Spector's Job Satisfaction Survey (JSS) and the Quality of Working Life (QoWL) survey.

Background of the Study

In 1972, the quality of work-life (QWL) concept was first introduced in literature at a conference held in New York (Erdem, 2020). QWL refers to the overall well-being of the workplace. Various factors comprise QWL, including employee satisfaction, engagement, and overall experience at work. Employees with low levels of job satisfaction often experience emotional burnout, reduced quality of life, and increased levels of anxiety and depression (Li & Xie, 2020). If job satisfaction is high, turnover and absenteeism rates are reduced, productivity increases, and a positive effect can be gained (Kim & Kim, 2020).

According to Zivkovic et al. (2021), research focusing on employee turnover, turnover intention, and organizational commitment in logistics is not common, constituting a clear research gap. Acar (2012) states that scientific research on administrative issues, including organizational commitment, neglects the logistics industry. Garg et al. (2021) conclude that future research on employee engagement in logistics should analyze employees, identify employee feelings, and monitor behavior trends.

Pang and Lu (2018) have established that future research should focus on analyzing individual departments to understand the perceptions of organizational motivation and job satisfaction factors in different logistic departments. Logistics firms are the backbone of many other sectors, keeping things going correctly and on time (Garg et al., 2021). The aim of this study was to gather information on the work-related quality of life and job satisfaction of logistics employees.

The problem addressed in this research is that workplace stress, discriminatory interpersonal interactions, and mistreatment of employees can cause severe damage to employee morale and ethics (Saleem et al., 2020; Wressell et al., 2018). Job satisfaction arises when there is alignment between work motivation, leadership, and the company's organizational culture that is inclusive

and embraced by all employees (Paais & Pattiruhu, 2020). According to Stoermer et al. (2017), addressing the needs and challenges of a diverse workforce is vital for maintaining positive work attitudes in employees, particularly job satisfaction. However, because of the high technological content and rapid updates occurring in innovation industries, employees endure more significant work pressure; thus, they are less satisfied with their jobs (Zhang & Wang, 2021).

The purpose of this quantitative correlation study was to examine the relationship between work-related quality of life and employees' job satisfaction in the logistics field. The independent variable is work-related quality of life, and the dependent variable is job satisfaction. The target sample was members of a logistics social media group with over 1,000 active members.

Logistics is a multifaceted term encompassing a wide range of activities and processes related to the movement, storage, and management of goods, materials, and information within a supply chain. It involves coordinating various elements to ensure the efficient flow of products from their point of origin to their destination (Garg et al., 2021). According to Nilsson (2019), most existing literature provides a general overview of logistics complexity. In contrast, the findings of this study will contribute to the specific body of knowledge on human factors within the logistics field by focusing on the relationship between quality of work-life and job satisfaction (Nilsson, 2019).

One research question with corresponding hypotheses guided this study.

RQ1 – What is the relationship between work-related quality of life and job satisfaction of logistics workers?

H1₀ – There is no statistically significant relationship between work-related quality of life and job satisfaction of logistics workers.

H1_A – There is a statistically significant relationship between work-related quality of life and job satisfaction of logistics workers.

The knowledge gained from this research can assist logistics managers and decision-makers in making position enhancements and incentives for improving their employees' retention, quality of work-life, and job satisfaction. Job satisfaction is a happy or optimistic emotional state that results from evaluating one's work or work experiences (Padmanabhan, 2021).

Literature Review

Employee job satisfaction levels can vary daily and are affected by work experiences and stressors (Pindek et al., 2021). Workers who find job tasks enjoyable and meaningful will like their jobs and be motivated to perform them well (Cavanagh et al., 2020). Therefore, company leaders should invest in all workers because it improves firm performance (Cavanagh et al., 2020). Srivastava et al. (2019) found that quality of work life (QoWL) and job-related outcomes have been crucial areas in human resource and organizational development (Cummings & Worley, 2005; Leopold, 2005). The literature that grounds this study primarily focused on quality of work life and job satisfaction.

Quality of Work-life

Holistically, QoWL is a favorable work climate and culture that supports and enhances the employee's satisfaction by supplying stimulating factors like career development options, job security, attractive compensation, and rewards (Lau et al., 2001). Cruz et al. (2022) argue that quality of work life is a multidimensional notion encompassing a range of factors that affect how people perform their jobs. Permarupan et al. (2021) state that QoWL is a tool that improves the working conditions that can benefit employees, employers, and customers. Quality of work life also means consideration of individual and group differences (Dawood et al., 2022). In contrast, Aminizadeh et al. (2022) describe the quality of work life as the ability of staff to satisfy their personal needs through experiences they learn in the organization.

QoWL is associated with job satisfaction, motivation, productivity, health, job security, safety, and well-being, embracing four main axes: a safe work environment, occupational health care, appropriate working time, and a fair salary (Leitao et al., 2019). It is also associated with the structured working framework, where workers socially integrate inside and outside the work (Permarupan et al., 2021). It is necessary to measure the QoWL status of employees and examine any influencing factors (Nanjundeswaraswamy et al., 2021). Quality of work life includes several activities highlighting its importance, such as solving problems and restructuring work (Dawood et al., 2022).

The impact of the quality of working life is manifested in reducing stress and employee burnout while increasing job productivity (Dawood et al., 2022). Furthermore, to enhance the quality of work-life, attention needs to be paid to factors that influence it, such as socioeconomics, demography, work, organization, self-actualization, and human relations aspects (Agusto et al., 2022). QoWL empowers the organization to change the job attributes and make them more employee-friendly by providing much-needed job satisfaction and retention over a more extended period (Permarupan et al., 2021).

QoWL provides the benefits of higher worker involvement by improving the working conditions and changing the job design schema (Permarupan et al., 2021). The value system of the quality of work life considers investing in individuals as the most important variable in strategic management; put differently, the fulfillment of staff needs will lead to the improvement and long-term performance of the organization (Aminizadeh et al., 2022). Quality of work life is gaining greater importance as the workplace demographics are changing to accommodate the vast number of millennials (Ali & Imran, 2020).

Job Satisfaction

According to Roznowski and Hulin (1992), one of the most valuable things an employer can know about its workers is if they are satisfied with their jobs (Bowling & Zelazny, 2022). The organization's level of support expresses job satisfaction, the employment situation, and the employee's assessment of the organization's work climate (Butt et al., 2019). Kasraie et al. (2014) conclude that understanding employees' job satisfaction is an important organizational goal (Thu et al., 2022). Some studies divide job satisfaction into intrinsic and extrinsic elements

whereby pay and promotions are considered extrinsic factors, and colleagues, supervision, and work are considered intrinsic factors (Judge et al., 2020).

Locke (1969) defined job satisfaction as a pleasurable emotional state. Freeman (1978) described it as a subjective variable that measures what people say rather than what they do (Bakotic, 2022). Spector (1997) stated that job satisfaction describes people's feelings about their jobs and various aspects of their work (Bakotic, 2022). Job satisfaction is an emotional and practical response to various facets of work (Maamari, 2014). In general, job satisfaction is an individual's positive psychological state of satisfaction (dissatisfaction) concerning work, work environment, salary, and other relationships (Thu et al., 2022).

Smith et al. (1969) argue that job satisfaction comprises five facets: pay, promotions, colleagues, supervision, and the work itself (Thu et al., 2022). Lock (1976) adds recognition, working conditions, and company and management (Thu et al., 2022). Job satisfaction is one factor that increases employee engagement (Pavlovic et al., 2022). Weiss et al. (1967) state that job satisfaction is composed of 20 clauses / sub-scales, such as ability, utilization, achievement, activity, advancement, authority, company policies, compensation, coworkers, creativity, independence, moral values, recognition, responsibility, security, social status, social service, supervision - human relations, supervision - technical, variety, working conditions (Thu et al., 2022).

Job satisfaction can indirectly affect organizational performance and achieving strategic goals and objectives (Day et al., 2022). Employee thoughts and feelings about their jobs impact a person's physical and mental fitness (Pekkan & Bicer, 2022). Managers need to know the influence of employee attitudes toward their jobs on performance and productivity (Pekkan & Bicer, 2022). Ozgul et al. (2022) declared that to reduce the loss of human capital in businesses, managing employees' affective commitment and increasing their motivation is critical (Mastracci, 2013). Employees should be offered opportunities for advancement, i.e., pay increases, participation in policymaking, and efforts to improve their organizational engagement, job satisfaction, and performance (Luminita et al., 2022).

Career development is projected to affect job satisfaction (Hamdanesti et al., 2022). Psychological empowerment may also increase peer job satisfaction (Abraham et al., 2022). Given that supervisors' understanding of peers' roles contributes to job satisfaction, aspects of the peer-supervisor relationship might also play a role in job satisfaction (Abraham et al., 2022). Benefits obtained from organizational communication are assumed to increase job satisfaction (Irawati et al., 2021). Very satisfied employees are usually regular, punctual, productive, dedicated, and confident (Luminita et al., 2022). Bongalonta (2022) argues that employees' value and essential role in a company's success are why most entities intend to invest their finances in human resources. When an organization has a solid human resource department to develop and form job titles, employees identify with their job roles more substantially, experience stress reduction, and are more satisfied with their jobs (Barpanda & Dwivedi., 2022).

Quality of Work-life and Job Satisfaction

Kasraie et al. (2014) conducted a study asking if the quality of work life, job stress, job satisfaction, and citizenship behavior are related to organizational citizenship behavior (OCB). Kasraie et al. (2014) believed that the quality of work life was the essential variable among the independent variables since it identified approximately 18% of citizen behavior. Kasraie et al. (2014) study concluded a significant relationship between the quality of work life, job stress, job satisfaction, and citizenship behavior. The methodology included Pearson correlation, independent t-test, analysis of variance, multiple regression, and path analysis (Kasraie et al., 2014).

Dhamija et al. (2019) conducted a study to explore the association of job satisfaction with the quality of work-life factors of bank employees, followed by the essential influential relationship of these concepts with socio-demographic characteristics in the Indian service sector. The study's results show the presence of variance (R^2 61.40 %) in job satisfaction as explained by the quality of work-life constructs (Dhamija et al., 2019). Additionally, some limitations were listed; the study considered only private sector banks, and the sample size (300) is small compared to the entire population working in respective private banks in Chandigarh and its adjoining areas (Dhamija et al., 2019).

Jabeen et al. (2018) conducted a study examining the quality of work life (QoWL) and its influence on job satisfaction and turnover (job-leaving) intention of Emirati women employed in various public sector organizations in the United Arab Emirates. Jabeen et al. (2018) hypothesized that:

- a) Quality of work life positively impacts job satisfaction
- b) Job satisfaction, in turn, reduces turnover intention
- c) Quality of work life directly correlates with turnover intention reduction.

Jabeen et al. (2018) supported these hypotheses with statistically significant results, advising employers to conduct regular surveys to assess the quality of work life to identify misalignments between employee expectations and organizational environments, job requirements, and managerial behavior. Jabeen et al. (2018) suggest extending this study to different work categories and other emirates to understand better the quality of work life's impact on localization.

Motivation Theories

As a concept, job satisfaction is linked to motivation theory (Al-Awar et al., 2022). Employee motivation is key to organizational performance and retention (Bundtzen, 2020). Most researchers and philosophers, including Herzberg (1959), agree that motivation can be distinct into intrinsic and extrinsic (Osemeke & Adegboyega, 2017).

Muruga and Vasiljeva (2021) declare that Herzberg's two-factor theory was developed by a psychologist, Frederick Herzberg, whose interest correlated the relationship between workplace

motivations and employee attitude (Herzberg, 1966). According to Herzberg's theory of motivation applied to the workplace, there are two types of motivating factors: 1) satisfiers (motivators), which are the main drivers of job satisfaction and include achievements, recognition, responsibility, and work advancement, and 2) dissatisfiers (hygiene factors), which are the leading causes of job dissatisfaction, and include factors such as working conditions, salaries, relationships with colleagues, administrative policies, and supervision (Al-Awar et al., 2022). Ozsoy (2019) articulates that hygiene factors do not increase job satisfaction, but the lack of hygiene factors leads to dissatisfaction. Consequently, the absence of motivation factors leads to a decrease in job satisfaction, and the presence of motivation factors increases job satisfaction (Herzberg et al., 1959; Herzberg, 1966, 1971, 2003).

Motivation is crucial in all firms to enhance employee performance, which is the key to an organization's growth (Yousaf, 2019). However, Herzberg stated that the most viable way of satisfying individuals in workplaces is to be successful and carry responsibility. According to him, economic factors do not play a significant role in motivation (Akdemir, 2020). Herzberg's theory does not only study a small area of turnover intention but covers almost all factors that promote or demote the employee's turnover rate (Chiat & Panatik, 2019). Another well-known need-based theory of motivation, as opposed to Herzberg's two-factor theory, is McClelland's needs theory of motivation (Osemeke & Adegboyega, 2017).

Maslow proposed that human needs can be organized into a hierarchy (Maslow, 1943). Maslow's hierarchy of needs theory states that people are motivated by five primary categories of needs: physiological, safety, love, esteem, and self-actualization (Hopper, 2020). Maslow's theory provides a framework for understanding these needs, their impacts on society, and what motivates humans (Ryan et al., 2020). Psychologists Carol Ryff and Burton Singer expanded on Maslow's theory of needs when developing their theory of eudaimonic well-being (Hopper, 2020). Roy Baumeister and Mark Leary also built on Maslow's idea of love and belonging when creating their need to belong theory, which focused on belonging as a fundamental need (Hopper, 2020). Feeling isolated or left out can negatively affect mental and physical health (Hopper, 2020).

Maslow's theory is one of the most powerful perspectives on humans' potential growth (Papaleontiou-Louca et al., 2022). According to Takyi Mensah et al. (2023), Maslow's model provides a better understanding of individual employees' needs and that notwithstanding the ever-present and growing technology, meeting the needs and giving employees training makes the workers more secure, enhances their feeling of belongingness, and self-esteem whiles providing the opportunity for self-actualization. It suggests that people have a strong desire to realize their full potential, reach self-actualization, and find meaning in life (Papaleontiou-Louca et al., 2022).

Motivation is the driving force that enhances achievements (Ihensekien & Joel, 2023). It is a state inside us that demands a change, whether in ourselves or our surroundings (Sentana et al., 2023). Maslow and Herzberg have built the concept of motivation theory with a distinctive definition and characteristics applicable in the modern day-to-day activities in management to find accurate stimulators of the workforce in an organization (Dashutina & Joshua, 2023). In

expectancy-value theory, motivation is a function of the anticipation of accomplishment and perceived value (Dashutina & Joshua, 2023).

Vroom created the expectancy theory in 1964 (Egbu & Olomolaiye, 2004.; Stráníková, 2008; William, 2010) and focused on the process of motivation (Mansaray, 2019). Three variables encompass Vroom's theory: valence, expectancy, and instrumentality (Mansaray, 2019). Valence measures an individual's desire for specific results and stands for value. It may be positive (desired outcome) or negative (Mansaray, 2019). Expectancy is the worker's anticipation of a particular effort leading to a specific performance (Lloyd & Mertens, 2018). Instrumentality is the credence that after meeting the anticipated performance, the desired reward will be received (Mansaray, 2019).

The expectancy theory is based on the postulation that individuals have choices and decide which option they perceive will lead to the best personal outcome (Lloyd & Mertens, 2018). According to Vroom's motivation formula, ($\text{Motivation} = f(\text{Valence} \times \text{Expectancy} \times \text{Instrumentality})$), if one of these three variables is zero, motivation is absent (Mansaray, 2019). Zboja et al. (2020) explain that the initial motive for creating the expectancy theory was to explain motivation - specifically, the voluntary choice made by an individual when options were available. The expectancy theory is geared toward work roles and focuses on choices, satisfaction with functions, and level of performance in the chosen work role (Zboja et al., 2020). A vital point of the theory is that an individual's behavior is formed not on objective reality but on their subjective perception of that reality (Gwanyo & Doosuur, 2022). Vroom asserted that the strength or aversion of a desire was based on extrinsic factors (Zboja et al., 2020). The theory also draws on thoughts from rational science, which includes human behavior as being controlled by a desire for maximum use of a given behavior (Ekundayo, 2018). Applying Vroom's expectancy theory to Generation Y and Generation Z alone can help bridge the gap between generational perceptions and different workplace desires (Darby & Morrell, 2019).

Douglas McGregor developed and presented his version of content motivational theories (X and Y) for the first time in 1957 in his article "The Human Side of Enterprise," which he later expanded and published as a book in 1960 (Grigorov, 2020). He further examined the shortcomings of the traditional management concept, presenting its characteristics and calling it theory X (Grigorov, 2020). Participation in decision-making positively alters the participants' attitude toward their jobs because it gives them job control (Ngo, 2019).

Theory X is an autocratic management style where the manager is centralized and makes decisions without considering colleagues' opinions (Touma, 2021). In Theory X, the centralization of power leads employees to dissatisfaction, as it also forces them to please the manager (Touma, 2021). Through participation, individuals (subordinates) contribute ideas toward solving problems affecting their organization and jobs (Odumegwu, 2019).

Locke et al. (1986) state that the participatory process improves motivation because it allows the participants to have influence and control over their tasks; as such, they more readily accept dealing with challenging tasks (Ngo, 2019). Appadorai (2005) argues that participation can create an asset in morale. People respond more cooperatively when necessary, and orders are given because they participate in the organization's affairs (Odumegwu, 2019). Participatory theorists Locke and Schweiger (1979) and Wentzel (2004) assume that the link between

participation in decision-making and its desired outcomes is driven by motivational mechanisms (Ngo, 2019). McGregor (as cited in Touma, 2021) suggested that people's beliefs will directly impact their behavior at work. McGregor's theory focuses on the effectiveness of the 'hard and soft approach' and the carrot-and-stick approach, arguing that once a person reaches an adequate subsistence level, motivation comes primarily from higher needs (Grigorov, 2020). Marta et al. (2020) state that job enrichment makes work more interesting, challenging, and likely to satisfy employees.

Logistics Industry

Due to globalization, logistics has become an essential part of the supply chain (Ramanathan et al., 2014). The logistics industry is a derivative industry generated by the outsourcing of services in the process of the breakdown and specialization of the manufacturing industry (He et al., 2020). Logistics involves managing the circulation of goods throughout the industry and, therefore, has a considerable ripple effect on other businesses (Lee & Seo, 2017). Fierce competition forces logistics companies to assess their performance with a comprehensive measurement model to become more competitive (Kucukaltan et al., 2016).

Logistics is pivotal in social production (Yao et al., 2022). The pandemic has put heavy pressure on global production capacity and supply chains, opening new avenues for the logistics industry to develop (Cuong & Tien, 2022). Logistics has also become an important component of competitiveness and innovation, significantly contributing to GDP, general incomes, and countries' competitiveness (Cherchata et al., 2022).

The freight logistics industry is transforming into a decentralized and digitized freight logistics system (Orji et al., 2020). Many freight logistics service providers have realized the importance of adopting technologies to help manufacturers, warehouses, and retailers communicate more efficiently (Ramanathan et al., 2014). The digitized freight logistics system builds on complex, interrelated hardware systems and requires novel technologies that support the exchange of financial transactions and related data (Orji et al., 2020).

According to the report released by the China Federation of Logistics and Purchasing (CFLP), the total value of social logistics in China from January to February 2020 is RMB 33.3 trillion, down by 11.8% compared with the same period last year (Liu et al., 2020). These percentages result from the COVID-19 pandemic. Specifically, CFLP 2020a states that road freight volume decreased by 24.8%, waterway freight volume decreased by 14.8%, air freight volume decreased by 13.8%, and inversely, railway freight volume decreased increased by 1.4% (Liu et al., 2020). A shortage of skillful logistics staff has become a common problem for companies globally (Zivkovic et al., 2021).

Employees in the logistics sector and other companies in the food supply chain that regularly work on logistics processes and activities have once again become the most valuable resource of the supply chain (Zivkovic et al., 2021). The logistics industry is a crucial component of the producer service industries among tertiary industries (Gao et al., 2018). Therefore, companies consider employees' satisfaction and attitude toward work (Zivkovic et al., 2021).

Methodology

The purpose of this quantitative correlation study was to examine the relationship between work-related quality of life and employees' job satisfaction in the logistics field. The research focused on logistics employees' job satisfaction and work-related quality of life. The logistic employees work in organizations such as warehouses, hospitals, farms, and transportation companies and are members of a logistics social media group. The information gathered from this study may benefit leaders in the logistics field by providing information on the relationship between their employee's work-related quality of life and job satisfaction. This information may help these leaders develop processes to increase job satisfaction and measures to improve their logistics employees' work-related quality of life.

The research questions and hypothesis that drive this study are as follows:

RQ1 – What is the relationship between work-related quality of life and job satisfaction of logistics workers?

H₁₀ – There is no statistically significant relationship between work-related quality of life and job satisfaction of logistics workers.

H_{1A} – There is a statistically significant relationship between work-related quality of life and job satisfaction of logistics workers.

The independent variable is work-related quality of life, and the dependent variable is job satisfaction. A quantitative research methodology with a correlation research design was used for this study. The rationale for choosing a quantitative approach is that it allows the researcher to assign specific and quantitative values when assessing the relationship between variables (Dobrynin et al., 2018). Appropriately applied and done well, quantitative methods can help bolster research inquiry with measurable and distinct evidence for the effects of interventions and other correlational questions (Henson et al., 2020). Additionally, the quantitative approach simplifies processing a large amount of data and allows a more straightforward comparison (Basias & Pollalis, 2018).

The Pearson correlation method is used for continuous and discrete data suitable for parametric statistics (Iswatiningsih et al., 2018). It measures a monotonic association between two variables (Schober et al., 2018), making it the most appropriate research tool for this study. This method is the first formal correlation measure that provides the degree of correlation between two quantities (Ciric et al., 2022). The correlation coefficient also determines the degree of a linear relationship between two continuous variables, showing how close the point value data distribution is to a straight line (Munandar et al., 2020).

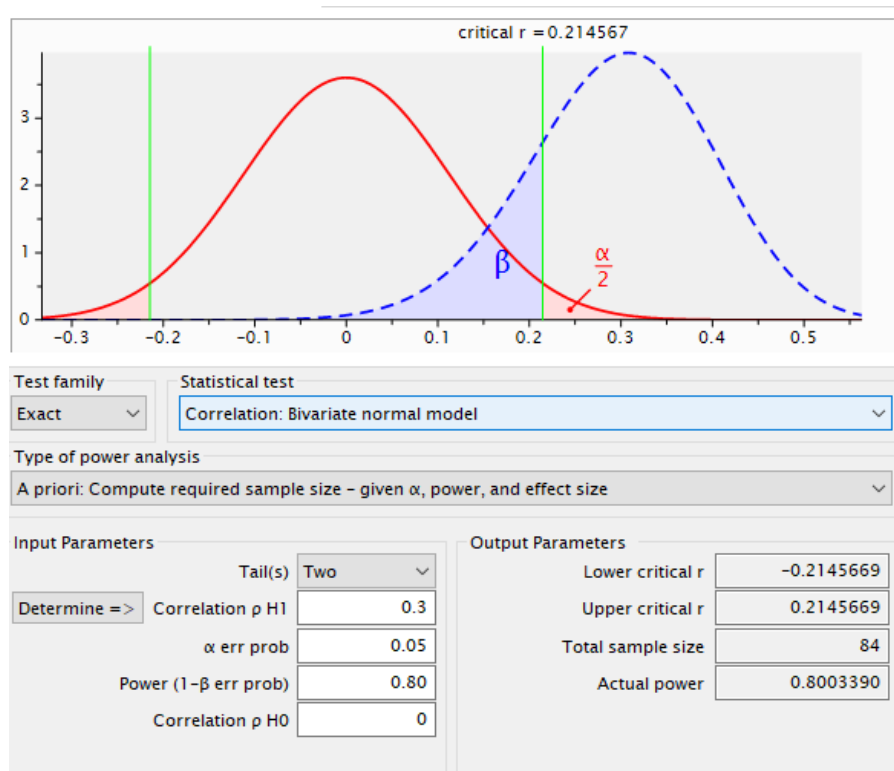
This study focused on the strength of the relationship between two variables but did not make any predictions or claims about the causality of the relationship. A regression is used to predict the value of one variable about the other. Since no prediction was used in this study, the regression was inappropriate.

The research study population consisted of logistics employees, and the sample was members of a logistics social media group. Only participants working in the logistics industry at the time of the study were eligible to participate. G* Power was used to determine the sample size. Figure 1 shows the output from G*Power A priori calculation. To detect a Pearson's correlation

coefficient of $r = 0.3$ with 80% power ($\alpha = .05$, two-tailed), G*Power suggests 84 participants are required to avoid committing a type II error.

Figure 1

A Priori G Power Calculation*



Note. Test conducted before the study.

The study participants are members of a nonprofit international society (Sole). The members of the group are employees in the logistics field representing various organizations. After receiving Institutional Review Board (IRB) approval from Columbia Southern University, participants were sent a link to the survey housed in Survey Monkey. The first page of the survey was an informed consent document that detailed the purpose of the study, duration, and procedures. Participants agreed to the terms of the informed consent by electronically signing the document before they were allowed to proceed with the survey. If participants did not sign the informed consent, they could not proceed to the survey questions. Participants were recruited by posting a link to the survey on a logistics social media group site. The administrator gave the researcher permission to post the link. The participants accessed the survey via the link, which directed them to the Survey Monkey site housing the survey. The participants were assured anonymity as no identifying information was collected from the participants.

The survey was open for two weeks beginning in November 2022, and the minimum number of 84 participants completing the survey was exceeded by the end of the two weeks. After week one, the researcher reposted the link and checked every day for potential participants. The

researcher would have extended the survey for an additional week if the minimum participant number had not been reached. Additional logistics social media groups would have been considered if the minimum number was not achieved after the extensions. All data collected will be kept for three years after completing the study.

Instrumentation

The Paul Spector Job Satisfaction Survey (JSS) and the Quality of Working Life (QoWL) survey and demographic and qualifying questions were used to address the research question.

The Job Satisfaction Survey (JSS) was developed by Paul Spector (1985) to assess employee attitudes about work and work aspects (Mustafa et al., 2019). The Job Satisfaction Survey is a multidimensional tool that includes 36 survey questions that address job satisfaction across several dimensions, including pay, promotion, supervision, benefits, contingent rewards, operating procedures, coworkers, nature of work, and communication (Platania et al., 2021; Spector, 1997). The internal consistency of the JSS survey has a Cronbach alpha of $\alpha = 0.92$, suggesting that it is an instrument with high reliability (Osmani, 2020).

The Work-Related Quality of Life Scale (QoWL) is a 24-item instrument used in assessing the following six dimensions of QoWL: (1) job and career satisfaction (satisfaction of one's career); (2) general well-being (happiness and life satisfaction); (3) homework interface (accommodating family and work commitments); (4) stress at work (work/job demands); (5) control at work (control of decision-making in a workplace); and (6) working conditions (physical work environment). Additionally, one item assesses the respondent's overall perceptions of their QoWL, and the WR-QoLS uses a 5-point rating scale, ranging from 1- strongly disagree to 5- strongly agree (Casida et al., 2019).

The coworkers scale on the WRQoL survey has the lowest alpha value at .60. In contrast, supervision has the highest value of .82. The total reliability for all facets is .91. According to Heale and Twycross (2015), an acceptable reliability score is 0.7 or higher. The work-related quality of life scale is a 24-item psychometric scale used to gauge employees' perceived quality of life as measured through six psychosocial sub-factors (Easton & Van Laar, 2018). The reliability of the questionnaire was approved by the test-retest method and Cronbach's alpha of 0.85 and 0.89, respectively (Charati et al., 2021).

According to the results for reliability, the total score using Cronbach's alpha coefficient had been reported as 0.921 (Farhadi et al., 2021). Duyan et al. (2013) conducted validity and reliability of the WRQoL scale in the Turkish language and confirmed its 6-subscale and 21-item structure.

Data Analysis and Results

A quantitative correlational study was conducted to determine if a relationship exists between job satisfaction and work-related quality of life of members of a logistics social media group. The administrator of Sole Logistics, a social media group dedicated to people working in the logistics field, distributed the survey housed in Survey Monkey. Each participant was assured anonymity, agreed to informed consent, and self-identified as working in the logistics field. The

survey was open for two weeks and had 92 participants. While analyzing the data, two extreme outliers were determined and removed from the dataset, recalculating the total number of participants to 90. Survey Monkey provided a downloadable file of the data collected, which was scrubbed for missing data and reverse-coded according to Paul Spector's Job Satisfaction Survey instructions. Responses to the work-related quality of life survey were also calculated using the measurement scale provided. The descriptive and inferential data were compiled and analyzed through R Commander.

Eighty-six percent of participants were over age 35. Forty-six percent of the participants were male, while 53% were females. Thirty-four percent of the participants had a bachelor's degree, while 24% had earned a master's degree or higher. Eighty percent of participants self-identified as Black/African American, while 17% were White/Caucasian. A summary of the descriptive statistical analysis is presented in Table 1.

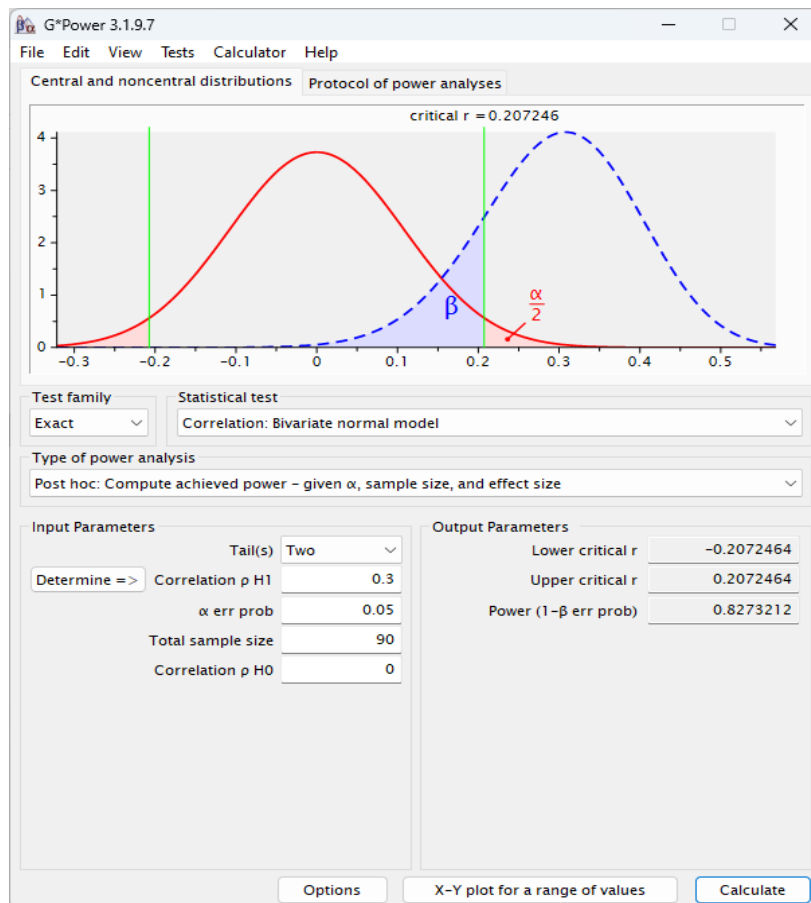
Table 1
Demographic Statistics

Category	n	%
Gender		
Female	48	53
Male	41	46
Other	1	1
Age		
18-24	6	6
25-34	7	7
35-44	23	26
45-54	31	34
Over 55	23	26
Ethnicity		
White/Caucasian	15	17
Hispanic/Latino	1	1
African American	72	80
Other	2	2
Education		
Less than high school	1	1
High school	27	30
Bachelor's degree	31	34
Master's degree	19	21
Doctorate	2	2
Other	10	11

Note. Reflects the number and percentage of participants who completed the survey.

A post hoc analysis was conducted after the completion of the study to determine the statistical power analysis of the study. Figure 2 illustrates that 90 participants completed the study, and the G*Power calculation resulted in 0.8273212 power, which is higher than the .80 power predicted. The post hoc G*Power results are shown in Figure 2.

Figure 2
*Post Hoc G*Power Calculation*



Note. Test conducted after study.

The reliability of the data collected was calculated using Cronbach's alpha coefficient in RCommander. The alpha reliability for the job satisfaction survey and the quality of the work-life survey are illustrated in Table 2. These results indicate that each participant answered the survey questions about the same.

Table 2
Reliability of Survey Instruments

	Alpha Reliability	Standard Reliability
Job Satisfaction	0.9315	0.9314
Quality of Work Life	0.8792	0.8962

Note. Cronbach's alpha of survey questions.

The skewness of job satisfaction was found to be -0.018, indicating highly skewed data. The kurtosis of job satisfaction was found to be -0.319, indicating that data was below the peak of the skewness curve. The skewness of work quality of life was -0.006, indicating highly skewed data. The kurtosis of job satisfaction was found to be -0.202, indicating that data was also below the peak. Both data sets skewed slightly to the left of the normal curve. A statistics summary of job satisfaction and work-related quality of life is illustrated in Table 3.

Table 3

Summary Statistics of Job Satisfaction and Work-Related Quality of Life

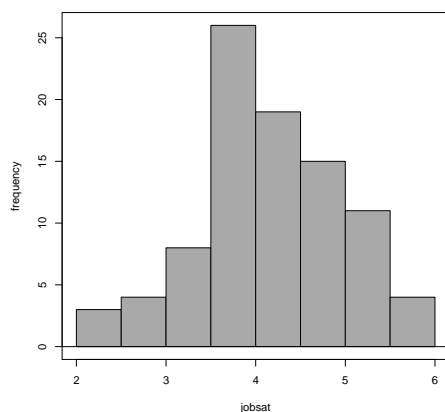
Variables	Mean	Std. deviation	Variance	Skewness	Kurtosis	N
Job Sat	4.162346	0.8087822		-0.01819823	- 0.3197668	90
WRQoL	86.54444	11.37429		- 0.006171095	-0.2024379	90

Note. Test conducted by variables.

Outliers are sampling errors, questionnaire-related issues, or erroneous data entries (Mowbray et al., 2018). The outliers found when initially running the data were removed. No significant outliers were present in the data once the erroneous data was removed. The histograms for the respective variables are shown in Figures 3 and 4.

Figure 3

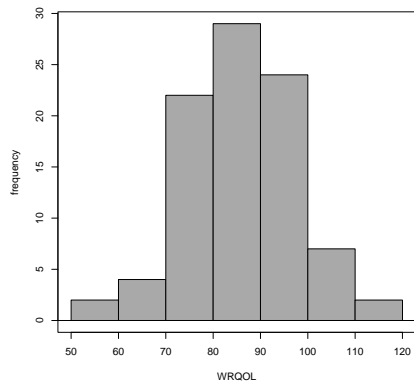
Histogram Using Job Satisfaction Variable



Note. It was depicted by the job satisfaction variable.

Figure 4

Histogram Using Work-Related Quality of Life (WRQoL) Variable

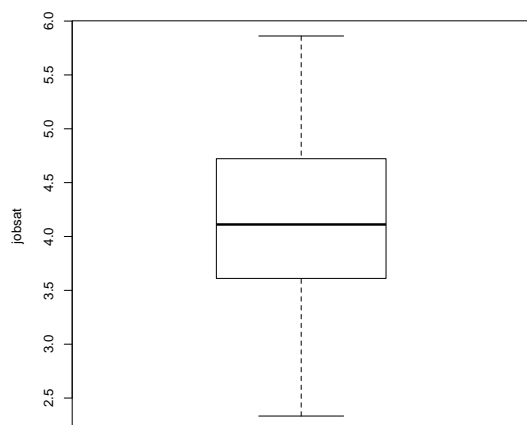


Note. They are depicted by the WRQoL variable.

Each variable illustrates the boxplots depicted in Figures 5 and 6 and has no outliers.

Figure 5

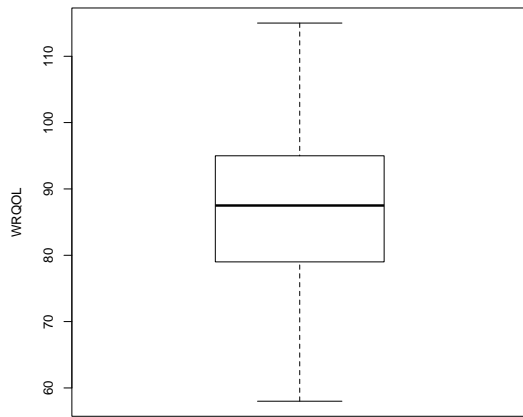
Boxplot Using Job Satisfaction Variable



Note. The boxplot identifies no outliers.

Figure 6

Boxplot Using Work-Related Quality of Life Variable.



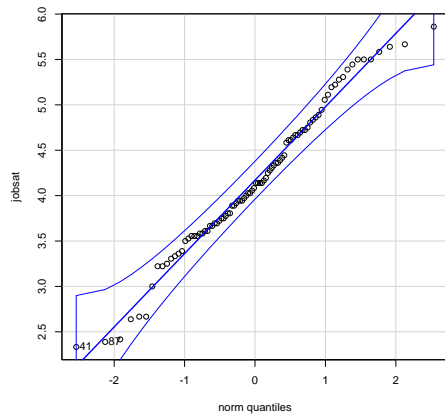
Note. The boxplot identifies no outliers.

A quantile-quantile plot (QQ plot) is a graphical technique for determining if two data sets come from populations with a standard distribution (Dansana et al., 2020). A Q-Q plot is a scatter plot created by plotting the theoretical and empirical quantiles (Zuzani et al., 2019).

The QQ plots in Figures 7 and 8 show a cluster around the straight line. The data is normally distributed, and all assumptions are met. The job satisfaction variable is forecasting outliers 41 and 87. These outliers are depicted in the grayed-out area along the reference line, which indicates normally distributed data.

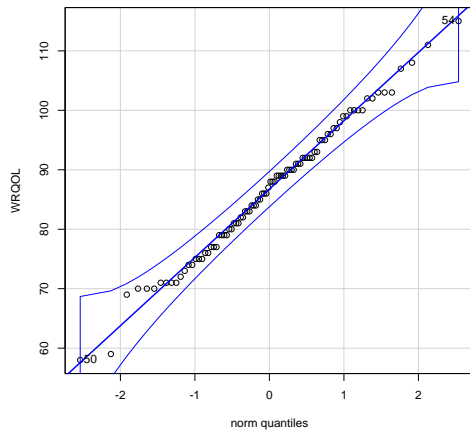
There are also two outliers in the WRQoL variable, 50 and 54. These outliers are depicted in the grayed-out area along the reference line, which indicates normally distributed data. Outliers located away from the reference line and inconsistent from other data clusters indicate that data is not normally distributed.

Figure 7
Quantile-Quantile-Plot Using Job Satisfaction Variable



Note. The Q-Q plot identifies two outliers, 41 and 87, but the data is still normally distributed.

Figure 8
Q-Q Plot Using Work-Related Quality of Life Variable

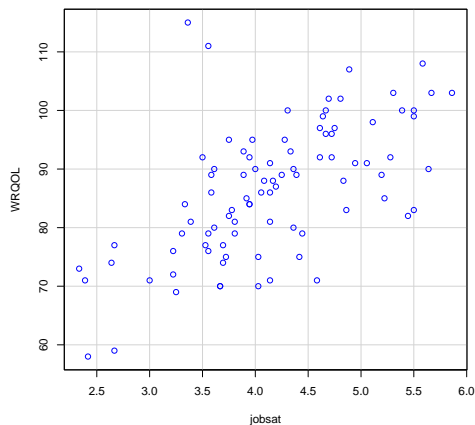


Note. The Q-Q plot identifies two outliers, 50 and 54, but the data is normally distributed.

A scatter plot is one of the earliest and most widely used data visualizations (Li, 2020). As shown in Figure 9, the scatter plot shows a positive linear relationship between variables. Subsequently, it demonstrates the correlation between job satisfaction and work-related quality of life.

Figure 9

Scatterplot Using Job Satisfaction and Work-Related Quality of Life Variables



Note. The scatterplot indicates a linear relationship between the two variables.

The Anderson Darling (AD) test was used to assess deviations from normality in the study. The test result on the job satisfaction and the work-related quality of life variable was insignificant. Table 4 illustrates the Anderson-Darling test by each variable with p-values.

Table 4

Anderson Darling Normality Test

Study variables	Anderson Darling	
	A	P-Value
Job satisfaction	.39931	.3572
WRQoL	.22565	.8141

Note. The p-value indicates normally distributed data.

A Pearson correlation coefficient was computed to determine if there was a significant relationship between job satisfaction and work-related quality of life. Both variables were considered normally distributed. Illustrated in Table 5 is a positive correlation between job satisfaction and work-related quality of life of logistics employees.

Table 5
Correlation of Variables

		Job satisfaction	WRQoL
Job satisfaction	Sig. (2-tailed)	1.0	.61
	Pearson		
WRQoL	correlation		
	Sig. (2-tailed)	.61	1.0

Note. **Correlation is significant at the 0.05 level (2-tailed). b. Listwise N= 90

Results

A relationship between job satisfaction and work-related quality of life was assessed. Both variables were considered normally distributed. The Pearson Product-Moment Correlation Coefficient (r) was the test statistic. The result of the test was significant, $r(90) = .61$, CI (0.4558578, 0.7222489), $p < 2.521 \times 10^{-10}$. The Pearson r of .61 indicates a moderate positive relationship.

Using the data collection instruments JSS and QoWL, this study revealed a significant relationship between workplace quality of life and job satisfaction of logistics workers. The post hoc query revealed enough participants to minimize type II errors. The data collected was normally distributed and was statistically significant. The null hypothesis that there is no significant relationship between workplace quality of life and job satisfaction of logistics workers was rejected.

Summary of Findings and Implications

The research from this study highlights employees' motivations and retention measures while advancing the knowledge gap between job satisfaction and work-related quality of life. Given the significant investments in employee retention efforts within organizations, it is rational to identify, analyze, and critique the motivation theories underlying employee retention in organizations (Ramlall, 2004).

This research was conducted because there was a lack of literature on job satisfaction and work-related quality of life of employees in the logistics industry. The results of this study showed a significant relationship between work-related quality of life and job satisfaction among logistics workers. The data collected was normally distributed and statistically significant; hence, the null hypothesis was rejected. The knowledge obtained from this study will contribute to the limited literature available to help executive decision-makers develop and implement job satisfaction and employee retention measures.

The results of this study, which identified a correlation between job satisfaction and work-related quality of life, support Maslow's hierarchy of needs and Hofstede's cultural dimensions theory. Maslow's hierarchy of needs is consistent with favorable quality of life and positive

improvements, while Hofstede's cultural dimensions focus on work goals and job satisfaction. Maslow's model states that people are motivated by five needs categories: physiological, safety, love, esteem, and self-actualization. Maslow's theory focuses on what factors motivate people and in what order. This study ties back to Maslow's hierarchy of needs by focusing on what motivates logistics workers. If employees' needs are not met, they may become unproductive and unmotivated.

Hofstede's model is used to understand language barriers across cultures and is divided into power distance versus closeness, uncertainty avoidance versus acceptance, individualism versus collectivism, and masculinity versus femininity. This theory is appropriate because it affects behaviors that may ultimately affect productivity. This theory is relevant because it looks at people's individual differences when determining how to best motivate them as a group. By encouraging logistics managers to provide spaces where all cultures are welcome, communication is not a barrier, and employees are treated as though they belong, the workplace quality of life and employee job satisfaction may be improved. Both theoretical foundations have been proven to be fundamental to the results of this study.

This study adds additional knowledge to the limited research on work-related quality of life and job satisfaction of employees within the logistics field. Knowledge sharing is one of the most fundamental activities in organizational operations (Ahmad & Karim, 2019). Individuals with different levels of education and logistic positions provided vital information to the study. Ali and Anwar (2021) stated that various intrinsic rewards are available that increase employee satisfaction and overall job-related productivity.

Acquiring data helpful in improving the quality of work life and the overall organization's productiveness is vital. Logistic employees have provided a cumulation of answers that can increase organizational commitment and employee retention while disclosing what motivates employees. According to Ali and Anwar (2021), behavior that helps any firm succeed is most likely to happen when the employees are well-motivated and feel committed to the organization and when the job gives them high satisfaction (Paais & Pattiruhu, 2020).

Organizations should design programs that factor in or add to the motivational needs of their employees. These programs could include asking how employees feel about their quality of work-life through surveys, one-on-one counseling sessions, or other communication settings. Adjusting resources that affect and improve job satisfaction is necessary.

It is important to acknowledge that this research specifically focused on the relationship between work-related quality of life and job satisfaction in logistics. The study's weakness is that it concentrated only on employees currently working in the logistics field, which may limit its generalizability to other industries. Future researchers could expand on this research by completing a qualitative or mixed methods study to conduct a more in-depth analysis of individuals' feelings.

According to the results of this study, there is a significant relationship between job satisfaction and work-related quality of life in logistics. While this study sheds light on job satisfaction and work-related quality of life, other variables, such as working conditions and stress at work, could

be used to gather different perspectives about employees' expectations of job satisfaction. Future researchers should consider additional variables such as tenure, age groups, job titles, etc., to understand how these factors affect employees' job satisfaction and work-related quality of life.

An area for improvement is the study's sample, as it was limited to participants who were members of a logistics social media group with over 1,000 active members. Future researchers could expand the data collection methods beyond these parameters for a more significant and diverse sample size.

Another recommendation would be to conduct research using a different industry, searching for similarities among business industries. For example, future studies could examine work quality of life and job satisfaction in the finance or human resources industries. Future researchers should consider using a qualitative or mixed methods approach to expand this research. They could gain more in-depth perspectives about the participants by conducting interviews and observations. Researchers could interview logistics employees on their views on training, tools, and processes that might improve their job satisfaction and work quality of life. Surveying people who have previously worked in the logistics field may give different views of battle-tested logistics workers to explain why they left the field.

Concluding Remarks

This quantitative correlation study examined the relationship between work-related quality of life and job satisfaction of employees who work in the logistics industry. This study demonstrated a relationship between job satisfaction and work-related quality of life. This research has contributed to the knowledge of job satisfaction and work-related quality of life within the logistics industry. This research is significant to the field of study because creating an effective work environment with employees, identifying their motivation, and focusing on employee retention efforts may be critical to any organization's success. Knowing what frustrates employees and what promotes productivity is important as the logistics industries expand. The results of this study can assist decision-makers in identifying the relationship between employee motivation and workplace quality of life; future research should focus on strategies to identify the causes and improve employee retention.

Davidescu et al. (2020) state that the labor market constantly changes, and the employee's role is critical. As Vince Lombardi said, "The achievements of an organization are the results of the combined effort of each individual" (as cited in Carter, 2017, para. 2). Organizational leaders must be willing and able to redesign and modify processes and policies as needed to monitor internal job satisfaction and retain employees.

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