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Relationship Between the Employee Incentive System, Employee Development System, and Employee Work-Related Stress

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Abstract

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Business owners are concerned with employee work-related stress, as it is the most important predictor of employee incentives and employee development practices. Grounded in Siegrist's theory of effort/reward imbalance, the purpose of this quantitative correlation study was to examine the relationship between employee incentive, employee development, and employee work-related stress. The participants were 88 employees of a private power sector organization who completed the SurveyMonkey link questionnaires and complied with the survey inclusion criteria. The results of the multiple linear regression were significant, F (2, 85) = 7.167, $p < 0.05$, $R^2 = 0.144$. In the final model, employee development was significant ($t = 3.306$, $p = .001$, $\beta = 0.340$) and incentive was nonsignificant. A key recommendation is for business leaders and managers to develop their employees by creating development working practices, acknowledging employees' achievements, and providing the best employee career programs. The implications for positive social change include the potential to mitigate any employee's work-related stress and thus support the local community workforce.

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Dedication

I dedicate this achievement to all the people that influenced me throughout the years, especially my closest relative, Dr. Khalid Alshimari, and friend Dr. Rami Alhadithi. Without the support from my family, this would be a dream, an unlikely start to this journey. I especially want to thank my wife, Zainab, for the unconditional love and support during this process. She is the rock, my purpose, and keeps me humbled. Completing this journey was challenging and rewarding, and I plan to continue improving myself and encouraging others to do the same. I hope this achievement will inspire my son, daughters, and grandchildren to keep learning and never give up!

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Section 1: Foundation of the Study

Employees require support such as adequate compensation systems and development efforts (Tiwari, 2017). Inadequate employee incentive systems and inadequate employee development efforts could negatively affect business performance (Childs et al., 2017; Nelissen et al., 2017). Business leaders need to move beyond traditional employee succession approaches and consider other career development that addresses and mitigates different work-related stress (Biron & Eshed, 2017). Organizational leaders should create a culture that supports their employees' well-being and resilience to build a collective capacity for organizational resilience. Employees adapt to leads work-related stress challenges that lead to burnout (Tonkin et al., 2018). Employee development can cause work-related stress, but there are employee development strategies that may mitigate employee stressors (Al Mamun & Hasan, 2017). Each organizational member has a role and responsibility to understand employee development (Nelissen et al., 2017), such as resiliency intervention practices that can improve employees' well-being to minimize work-related stress (Werneburg et al., 2018). The current study was conducted to explain why some employees have low productivity by examining the relationship between employee incentives, employee development, and work-related stress.

Background of the Problem

Each job entails some degree of stress; some jobs are considered more stressful than others due to the increased responsibility in job levels (Saadeh & Suifan, 2020). Work-related stress negatively affects employees' development, performance,

productivity, and well-being (Albort-Morant et al., 2020). Anxiety at work has grown significantly in the last 20-30 years (Lewis et al., 2017). Approximately 69% of employees report that their work is a significant stress source, and 41% feel tension or stress. Stress costs about $43.70 billion per year in the United States (Olafsen et al., 2017). The European Bureau for Safety and Health at Work estimated that stress causes about 50-60% of all lost workdays (Florea & Florea, 2016). The total estimated cost of work-related stress broadens considerably from US$221.13 million to $187 billion (Hassard et al., 2018).

Business management practices significantly impact employee work-related stress, affecting business financial profitability (Pawirosumarto & Iriani, 2018). To improve workers' health, any firm or organizational administrator should balance effort and reward and provide career development and training opportunities for the firm's workers (Ge et al., 2021). Researchers have applied a validated standard measurement of an internationally established theoretical concept of stressful work associated with effort-reward imbalance (ERI; Riedel et al., 2017). Researchers have linked stressful work to an ERI with a broad range of worker's biomarkers results (Siegrist & Li, 2017).

Problem Statement

The total estimated cost of work-related stress has grown from US$221.13 million to $187 billion (Hassard et al., 2018), but business management practices can impact work-related stress (Pawirosumarto & Iriani, 2018). The general business problem was that lack of effective business management practices might lead to employee work-related stress, affecting business profitability. The specific business problem was that

some business managers do not understand the relationship between the employee incentive system, employee development system, and employee work-related stress.

Purpose Statement

I aimed to examine the relationship between the employee incentive system, employee development system, and work-related stress. The targeted population consisted of administrators or supervisors of a power generation company with branches located in Jordan/Amman, Al-Mafraq, Al-Aqaba, Al-Resha sites. The independent variables were the employee incentive system and employee development system, and the dependent variable was employee work-related stress. The implications for positive social change include leaders and managers adapting effective business management practices to reduce work-related stress, thereby enhancing employees' work performance to improve power companies' profitability. Steady economic stability backed by successful financial practices will ensure a safe and stable life for families and their communities by providing better living and employment opportunities considering today's environmental economic changing conditions.

Nature of the Study

I selected the quantitative method for this research subject. The quantitative method measures the strength of the relationship between variables. The quantitative method for collecting data in research depends mainly on random sampling and pre-designed and structured data collection instruments (Kabir, 2016). In contrast, the qualitative method is considered the best choice if the researchers intend to explore a bounded system or multiple bounded systems over time through in-depth data (Harrison

et al., 2017). The qualitative method covers a detailed collection involving multiple sources of information like interviews, audiovisual material, observations, documents, and reports. The method form contains the features and characteristics of both qualitative and quantitative methods, but qualitative and mixed-method approaches were not a good fit for this study.

I chose the correlational research design for this study. This design tests the relationship between two predictor variables and one criterion variable. Correlational research predicts independent and dependent variables (Curtis et al., 2016). When a researcher desires to evaluate a degree of cause and effect, the experimental and quasi-experimental design is the best choice (Brown, 2018). A researcher under strictly controlled conditions could test causal relationships by implementing the practical design approach (Bloomfield & Fisher, 2019). The focus of the study was to recognize the relationship between variables. Consequently, the correlational research design was the best fit for the study.

Research Question

What is the relationship between the employee incentive system, employee development system, and employee work-related stress?

Null Hypothesis: There is no statistically significant relationship between the employee incentive system, employee development system, and work-related stress.

Alternative Hypothesis: There is a statistically significant relationship between the employee incentive system, employee development system, and employee work-related stress.

Theoretical Framework

The theoretical framework I used is the ERI model for understanding how a lack of employee incentive systems and employee development systems could influence control work-related stress. In the early 1990s, Siegrist developed the ERI model (Siegrist, 1996). Siegrist et al. (2004) stated that stress was due to the unfair status between executed tasks and benefits, such as when the employee has not justified the working contract or has a limited choice of alternative employment opportunities. In this circumstance, the employee accepts these unfair working conditions. As applied to this study, stress was examined about effort spent at work and rewards provided into expended employee development resources. Thus, the ERI model theory served as a lens to understand how the employee incentive system predicts work-related stress.

Operational Definitions

This section includes the definitions of terms used in this study to enhance understanding; this includes consists of. I investigated employee incentives and development related to work stress. In this section, I focus on business-related terms.

Employees' psychological capital: Employees' psychological capital refers to a group of resources individuals can use to improve their job performance and success; it also contains four other resources: self-efficacy, optimism, hope, and resilience (Darvishmotevali & Ali, 2020).

Interpersonal resources: Interpersonal resources refer to employees who have received adequate support under challenging situations, and their efforts have an insufficient salary and recognition for work completed. Interpersonal resources mention

the trust in the information comings from management, and the management levels trust the employees to do their job well (Stanhope, 2017).

Job promotion: Job promotion transfers an employee to a new position that commands higher pay, privileges, and status. Job promotion is a vertical movement in rank and responsibility (Weller et al., 2019).

Job security: Job security is the probability that an employee will keep their job. A job with a high-security level is such that a person with the job would have a slight chance of losing it. Job security refers to individuals who can influence their degree of job security by increasing their skills through education and experience or moving to a more favorable location (Umrani et al., 2019).

Knowledge-sharing behavior: Knowledge-sharing behavior refers to an activity through which knowledge, skills, or expertise are exchanged among people, friends, peers, families, communities, or within or between organizations (Aulawi, 2018). Knowledge sharing is part of the knowledge management process (Intezari et al., 2017).

Organizational support for development (OSD): OSD refers to employees' overall perception that the organization provides practices, programs, and opportunities to develop their functional skills and managerial capabilities (Kraimer et al., 2011).

Perceived career opportunity (PCO): PCO refers to employees' perceptions of how work requirements and job opportunities that match their career desires and goals are available within their current organization (Kinnunen et al., 2008; Kraimer et al., 2011).

Self-esteem: Self-esteem is essential to value and think well because it serves as a motivational function that enables employees to explore their full potential (Brown et al., 2019).

Work-related demand: The work-related demand refers to the physical order of an employee's work and the constant time pressure due to a heavy workload that causes an employee to worry about making mistakes at work. Work-related demand tests whether the employee exposes to abusive language during the last 6 months (Stanhope, 2017).

Work-related values: Work-related values refer to the employee's job promotion prospects if job performance is inadequate and job security is flawed. These values also involve the level of freedom to decide how the employee is doing their work (Stanhope, 2017).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are factors and insights that researchers accept as objective factors influencing their research without supporting them with previous practical and theoretical evidence and experiences (Akaeze & Akaeze, 2017). The first assumption was that the respondents in the selected employee segment's questionnaire would answer the questions based on their experience with honesty and integrity, avoiding bias and emotion. The second assumption was that most executive managers are not aware of their companies' sustainable profit value from the correct balancing act between effort and rewards at work and the importance of continuous employee development.

Limitations

This section will explain the limitations of conducting the research and its location. First, the accuracy of recollection was before and during the research (Akaeze & Akaeze, 2017). Second, the study's location was in the Hashemite Kingdom of Jordan, specifically in Amman. It has one of the four branches in the Kingdom, which determined the number of participants in this geographical area without the center and south of the Kingdom. The study outcomes may not necessarily reflect the rest of the employees in other companies and geographical locations. The study's outputs and results are also not relevant to the rest of the workers in this sector.

I attempted to be unbiased, although I did previous work in this sector. I also did not work with the targeted energy company. I do not have any relationship or knowledge with the workers participating in the questionnaire. Further, I could not identify the participants in the survey, as I collected the questionnaire answers directly from the SurveyMonkey link. I conducted extensive discussions with the human resource management (HRM) representative as the company point of contact while delivering the questionnaires of the SurveyMonkey link.

Delimitations

Delimitations indicate the study's limits under the researcher's control, and the factors under the study control represent by selecting the model of the segment participating in the survey (Muqadas et al., 2017). I identified three types of delimitations in my quantitative correlational study. The limited geographical area to the middle and north area of the Hashemite Kingdom of Jordan is the first delimitation. The second

delimitation is the power production company employees such as foremen, supervisors, managers, and executive staff. The third delimitation is the employees whose job function is directly related to local administrations, financial, and logistics operations. I excluded unskilled workers with no supervisory or administrative role because they did not influence subordinates, especially compensation plans and career development systems.

Significance of the Study

Company managers often face maximizing and sustaining profitability. Therefore, managers seek to minimize employee work-related stress to raise profitability. This study may help business management practice by providing a practical model for understanding the relationship between management practice characteristics and employee work-related stress. A predictive model could help managers foresee work-related stress and, more critically, employ interventions to mitigate employee work-related stress. Business managers must ensure that work-related stress does not oppose business success and profitability. The study results could help business managers understand the relationship between their managing practices to improve employee productivity, therefore adding value to the business. The study could also contribute to business practice and implications for positive social change.

Contribution to Business Practice

The study results may be helpful to business practice in that they may provide an explanatory and practical model for understanding the relationship between effective management practices and employee productivity. Enhanced employee productivity may lead to increased profits in businesses. To overcome work-related stress and harmful

internal effects, power production companies should have management practices that ensure they contribute to business practices' success by implementing approved agreed-upon incentive systems and effective employee development systems.

Implications for Social Change

The study results may help develop power companies when top managers consider the findings. The implications for social change include creating an opportunity for managers of a power company in Jordan to adopt effective managing practices and reduce work-related stress. Managers may then reach the desired organizational goals and lead power companies' profitability in Jordan. Likewise, businesses may achieve their desired goals, creating thriving companies to provide better jobs in the community establishing a better quality of life and economic stability for the employees and their community.

A Review of the Literature

The purpose of this quantitative correlational study was to test the relationship between the employee incentive system, employee development system, and employee work-related stress. I have addressed in this research the shortage of published works in the literature about work-related stress that employees could face in Middle East companies. My review and synthesis of the literature for this study focused on business topics. I deployed a search strategy that covered academic databases, notably Google Scholar, Scholar Works, ProQuest, and the library at Walden University, as sources for identifying books and peer-reviewed journal articles relating to the search terms. I also searched for relevant material on government websites. Google Scholar was the primary

search engine used to identify the critical periods for searching. The following search terms were applied: *ERI model*, *effort*, *reward or incentive*, *self-esteem*, *job promotion*, *job security*, *work-related overcommitment (WOC)*, *employee development*, *organizational support for development (OSD)*, *perceived career opportunity (PCO)*, *work-related stress*, *work-related demand*, *interpersonal resources*, and *work-related values*.

I systematically conducted the literature review, ensuring that the latest sources published within the last 5 years from my anticipated graduation date has included in the review study. Table 1 shows the sources reviewed and their percentage of the total number of sources by category. The total number of references is 249; 87.2% were from peer-reviewed sources, and 84% of the entire study sources were within the latest 5 years.

Table 1

Numbers and Percentages of Sources by Category

Sources	Within 5 years (2017–2021)	Older than 5 years	Total	Percentage
Books/Book chapters	5	10	15	6.0%
Theses	7	1	8	3.2%
Others	6	3	9	3.6%
Peer-reviewed articles	191	26	217	87.2%
Total	209	40	249	

In this literature review, I present a critical analysis and synthesis of the literature related to the subject of my doctoral study. The first part of this review focuses on the ERI model, which serves as the study's theoretical framework. Next, I review the literature on three competing theories that were alternative theoretical frameworks for this study: Herzberg's two-factor theory, the quality of the work-life (QWL) theory, and

Maslow's hierarchy of needs theory. Finally, I compare the strengths and limitations of these theories.

The Effort-Reward Imbalance Model

The ERI model, which Siegrist developed in 1996, constitutes the theoretical framework of this study. It has demonstrated how the absence of an employee incentive system and an employee development system may affect employees' work-related stress. The ERI model describes intrinsic individual factors (i.e., employee motivation) and extrinsic organizational factors (i.e., work demands) that affect employees' occupational stress and subjective well-being (Hamilton, 2019). According to this model, stress induced by an inequitable relationship between executed tasks and associated benefits can arise under certain circumstances (Siegrist et al., 2004). When employees invest considerable efforts in their work, they expect to receive corresponding rewards (Siegrist et al., 2004). Employees who believe that workplace conditions are unfair perceive an imbalance between a high level of individual effort and a low-level organizational reward (Siegrist, 1996), which leads to stress (Siegrist, 2005). The ERI model thus explains the imbalance between an employee's work-related effort and the reward they receive in return for that work. Accordingly, I examined the extent of the balance between a workplace incentive system and the efforts expended by employees at work.

The ERI theoretical model also serves to understand the correlation between work and associated rewards available within a firm's employee development system. Employees' work-related stress can be predicted based on the firm's employee incentive system (Kinman, 2019). The work executed by any employee can be connected to

monetary incentives and career opportunities, such as training and professional development (Notelaers et al., 2019).

Applying the latest version of the model, Siegrist (2002) introduced three hypotheses to investigate the full effect of an ERI. The first extrinsic ERI hypothesis is that an imbalance between an individual's effort and rewards, such as a high level of effort and an inadequate reward, has adverse health effects that exceed the individual effort and reward components' effects. The second hypothesis is that intrinsic commitment may cause prolonged ERI and harm an employee's health. The final hypothesis on interaction is that an ERI and overcommitment induce high risks of poor health outcomes. Studies have further applied the ERI model to support these hypotheses (Kunz, 2019; Lau, 2018). Although some studies have focused on measuring the ERI, incorporating overcommitment into such studies is becoming increasingly common (de Araújo et al., 2019).

Siegrist's (1996) ERI model emphasizes individual work experience features combined to obtain an overall score for the imbalance between efforts and rewards (Dragano et al., 2017). Workplace stressors include injustice associated with a lack of rewards and recognition of employees' efforts within their firms (Notelaers et al., 2019). Stressful work resulting from an imbalance in employees' efforts and rewards in return is consistently associated with impaired health (Siegrist et al., 2019). The alleviation of stress at the workplace offers numerous benefits. Thus, this study was necessary to examine the relationship between a firm's reward and employee development systems and employees' various work-related stress conditions experienced by employees. Energy

companies have played a prominent role in influencing social change by providing desired social and economic life opportunities, and their study can offer essential insights on this topic.

Effort

The word *effort* relates to a tendency to judge things that take a long time to produce higher value than those produced over a short duration (Marks et al., 2020). Individuals use whatever information is available to make these judgments, and effort is generally considered a reliable indicator of quality (Siegrist & Li, 2017). More significant effort in producing an object corresponds to a higher valuation of the thing in contexts where the value is difficult to assess because the evaluator lacks the required expertise to evaluate an item—for example, comparing $1,000 earned as a salary based on complex work performance and $1,000 found by chance. The $1,000 obtained by chance is more likely to be spent on a whim, whereas the $1,000 part of a hard-earned paycheck is more likely to be spent on necessities than squandered away (Van Hooff, 2017). The effort applied by an individual in acting depends on their objective (Steele, 2020). If the aim is deemed low importance, then the amount of effort the individual will expend in this section will be lower (Inzlicht et al., 2018).

The effort component in the ERI model refers to the employee's exertions. Siegrist presented two dimensions of effort in the model that he introduced in 1996: intrinsic and extrinsic efforts. In a later version of the model, the physical workload was considered psychometrically appropriate only for samples where blue-collar workers were predominant (Siegrist et al., 2004). Intrinsic effort can be measured using a scale for

measuring the need for control, which comprises two subscales for measuring effort: vigor and immersion (Wu, 2019). The vigor subscale measures successful management as an outcome of hard work and perfectionism. Conversely, the immersion subscale measures exhaustion resulting from continually negative responses to the employee's efforts. Researchers have used four scales to measure immersion: competitiveness, need for approval, inability to withdraw from work, and inappropriate irritability (Rose et al., 2018). However, subsequent studies have not successfully replicated measuring intrinsic efforts. Instead, the scale measuring the inability to withdraw from work is especially appropriate for measuring intrinsic efforts.

Additionally, there are six stress-inducing factors relating to the effort: physical workload, time pressure, interruptions, responsibility, working overtime, and increasing demands (Bell et al., 2017). The stressors may differ according to the nature of the work. Extrinsic efforts refer to stressors arising within the work environment (Siegrist, 1996; Wang et al., 2017). In blue-collar workers, extrinsic efforts are mainly associated with piecework, shiftwork, noise, work pressure, or increased workload. The extrinsic effort is more significant among blue-collar middle managers who have a larger number of employees under their supervision than those with smaller numbers (Siegrist, 1996). Examples of external efforts that can arise in any workplace include interruptions, conflicting demands, and challenging problems (Gadeyne et al., 2018). Effort expenditure is more significant among employees with higher education levels than employees with lower education levels (Ohl et al., 2017). Moreover, permanent workers expend more effort than fixed-term workers (Bossler & Grunau, 2019). These studies point to a need

for companies to develop strictly enforced practices for assessing the amount of effort paid by their employees. In the following sections, I will discuss reward, an independent variable in this study, derived from the ERI theoretical model.

Reward

A reward is a commitment to creating and efficiently operating a reward system in an organization. Rewards have been based on the analysis and monitoring employees' remuneration, incentives, compensation, and other benefits. A reward system entails implementing strategies and policies to reward employees fairly, equitably, and consistently based on their value to the organization (Jones & White, 2021). A reward system generally comprises a pay policy, salary and payroll methods, total rewards, a minimum wage, executive pay, and team rewards (Jones & White, 2021). Reward systems also include maintaining control within an organization and defining relationships between employees and their companies (Alferjany et al., 2018). A reward system thus defines a company's expectations of its employees. The company's reward system is intended to promote individual and organizational behaviors required to achieve its strategy and objectives (Masri & Jaaron, 2017; Rawashdeh, 2018). There are six ways in which a reward system contributes to a company's achievement of its strategies: (a) by attracting and retaining employees, (b) by motivating performance, (c) by promoting skills and knowledge development, (d) by shaping corporate culture, (e) by reinforcing and defining the organizational structure, and (f) by determining costs of pay policy (Asaari et al., 2019).

Employee performance and rewards are vital components of a compensation system. Studies have shown how employees have been compensated, how the compensation is delivered, and how the form of compensation signals a company's values, goals, and priorities (Darma & Supriyanto, 2017). Traditionally, job specifications, levels of compensation in the marketplace, and the need to maintain equity among employees have determined the base salary level, which is the traditional way of rewarding employees (Bwowe & Marongwe, 2018). However, more commonly, reward systems comprise bonuses based on individual performance and salaries based on personal achievement (Quentin et al., 2018). But defining, evaluating, and measuring individual performance and reward types and their deployment differ among organizations (Bussin & Thabethe, 2018). Thus, there is a need for specific, accurate, and agreed-upon compensation systems to evaluate workers' efforts and ensure that their organization procedures keep pace with competitive conditions globally and with rapid and extensive changes.

Further, there are two forms of corporate culture and reward systems located at opposite ends of a spectrum (Brown & Worthington, 2017). In the first corporate hierarchy, employees are rewarded based on subjective assessments to evaluate and determine their performance. The second system, performance-based quantitative measures, is linked to corporate and individual results to assess and reward employees. Thus, though the relationship between a superior and a subordinate is emphasized in the corporate hierarchy model, objective measurements are emphasized with performance-based models; both systems entail the disbursement of bonuses that vary according to

employee performance. However, a collective bonus pays in the corporate hierarchy system, but performance-based systems entail individual rewards. Another significant difference between the two systems is the compensation structure (Brown & Worthington, 2017). The base salary proportion is higher than the corporate hierarchy system's performance bonuses (Grinberg et al., 2018). These two contrasting reward systems usually co-exist within organizations, indicating the need for deeper internal reflection within companies, with inputs provided by human resources departments with expertise in professional development systems.

Another issue is that the institution of a reward system does not guarantee that individuals' actions will conform to expectations. Reward systems could lead to dysfunctional behavior due to rewards that the organization does not seek (Tufail et al., 2017). For example, although companies may disburse rewards based on their quarterly earnings, they may be hoping for long-term growth. Thus, reward systems can conflict with the organizations' business goals, as in many U.S. corporations (Caputo et al., 2018). Consequently, the literature highlights the importance of designing scalable and transparent reward systems compatible with companies' goals and strategies. Studies conducted in many developed and newly developing countries have identified the need for fair and rewarding work-related compensation systems. The best finding of these studies is that the theoretical basis for monitoring efforts in exchange for rewards can blind it to many fields and for various types of disciplines.

Overcommitment

In later studies, the term *overcommitment* was deemed essential for describing intrinsic effort—the inability to withdraw from work (Siegrist et al., 2004; Violanti et al., 2018). Thus, recent studies have incorporated overcommitment in their assessments (Keisu et al., 2018; Porru et al., 2021). Researchers have considered overcommitment independently; some have followed the original research frame and have included overcommitment as the intrinsic effort subscale (Violanti et al., 2018). In the original model, overcommitment entailed a set of attitudes, behaviors, and emotions reflecting redundant striving connected with a deep desire for approval and esteem (Siegrist, 1996). When an ERI is present, individuals characterized by overcommitment will increase their efforts because of their passion for support and esteem (Kunz, 2019). This phenomenon makes it more challenging to evaluate and compare different studies together.

The incentives system provides opportunities for employees to contribute to the organization, receive rewards or esteem, and belong to influential groups. In the ERI model, a reward system is presented as an essential component of working life, providing an operational link between self-regulatory functions like self-efficacy, self-esteem, and social opportunity construct (Thornton, 2019). Any deviations from such interchanges undermine individuals' self-regulatory processes, notably their sense of self-mastery, self-efficacy, and self-esteem. Such variations evoke strong and recurrent negative emotions of fear, anger, and irritation that lead to emotional distress and an autonomic arousal tendency along with associated strain-related reactions (Notelaers et al., 2019). ERI describes incomplete contracts in which anticipated mutual commitments have not

been met (Siegrist, 2005). The premise that reciprocal exchange underlies all social transactions is a prerequisite for the potential benefits of an individual's work role. Reciprocity in a work context entails a state in which an employee has perceived investment of effort as an extrinsic effort balanced by rewards entailing monetary gain, self-esteem, career opportunities that they attain, and job security.

Work-related stress attributed to an ERI is associated with adverse behavioral outcomes such as high smoking and alcohol consumption rates, absence due to sickness, and psychosomatic disturbances. The importance of the quality of other core adult social roles outside of the work domain, such as partner, parent-child, general trusting relationships, and relevant civic functions, has also been highlighted in the literature (Alsubaie et al., 2019). According to expectancy-value theory, it is likely that individuals in unfavorable situations who are experiencing an ERI will act to minimize or dismiss high-cost/low-gain conditions by changing jobs or reducing their efforts (Leineweber et al., 2020). However, Siegrist (1996) identified three situations in which this assumption is not valid. The first situation entails few alternative job opportunities within the labor market and the risk of being laid off or facing downward mobility. Stengård (2018) has described this situation as one of being *locked in.* The second situation is when individuals perceive opportunities to compete to increase their promotion prospects by performing extra work and taking on additional responsibilities. The third situation entails the presence of work-related overcommitment coping behavior.

Additionally, the ERI model is more consistent in demonstrating psychosocial stress at work than other job stress models, such as the job demand-control model

(Siegrist & Wege, 2020). The ERI model's benefits are apparent as opposed to the job demand-control model to assess the number of stress workers have exposure to within various work sectors. The programs and processes and employees' stress have become a critical requirement for globally competing companies and businesses. Such linkages will contribute to sustainable competition and profitability.

The ERI model centers on the stressful aspects of the conditions of employment or unjust working contracts. Siegrist (2016b) argued that any costly exchange in which person one provides valuable something to person two entails the expectation that person two will return something of value to person one. The transaction does not convey the service's entire identity in return, but this working activity must meet some agreed-upon standards of equivalence (Hu et al., 2021). Reciprocity does not occur when the return service is rejected or does not meet the agreed-upon level of equality (Rugulies et al., 2017). Thus, institutional social contracts, considered a universal feature of socialization, are established based on the security and the maintenance of equivalence of return in critical types of costly exchanges.

The working or employment contract is one type of social contract that employees agreed to or have expected to deliver in exchange for incentives or rewards provided by the employer. Siegrist (2016a) identified three essential rewards in such exchanges: monetary reward, status-related reward, and socio-emotional reward. Notably, he added that any employee contracts would have some spaces for flexibility, and adaption would not include specific details about efforts and rewards. An imbalance between effort and reward in work situations frequently occurs under particular conditions, entailing

inadequate interchanges that reflect high costs such as expended effort and low gains received, such as rewards (Adeoti et al., 2017). With few options available within the labor market, job dependence is critical for employees (Rugulies et al., 2017). Employees who are most likely to be trapped within unfair contractual exchanges or obtain fewer rewards through their companies' incentive schemes are unskilled and elderly employees and those experiencing restricted mobility and functional abilities.

Levels of acceptance of unfair transactional conditions are therefore higher among such employees, given their limited options. Cuervo-Cazurra et al. (2019) found that employee dependency is relatively widespread in the prevailing context of modern economies and globalization. Moreover, intense economic resources, competitive opportunities, and technological changes have influenced working conditions. Further, extensive innovations have adversely impacted the working conditions and job security of non-professional employees or those with unique experiences, restricting access to employment opportunities. The reverse situation applies to skilled and qualified workers. A second condition that accounts for the failure of reciprocity within formal work contracts is the *strategic option* (Boddewyn & Buckley, 2017). Economic globalization has led to unavoidable competition between highly qualified teams within the workforce. Studies have found that employees accept high-cost work conditions in return for limited gains and time when faced with highly competitive situations during the early stages of their professional careers. Employees seek to enhance their career opportunities and rewards in the direction of their desired future even when they do not comply to do so

(Bozzon et al., 2017). In this case, unsecured and anticipated return contracts may result in failure expectations because extensive efforts entail long hours and tedious work.

Employees' efforts would relate to their motivation to respond to requests and external orders at work. According to Siegrist (2016b), effort relates to any institutional control structure with matching demands, leaving limited space for the differences between subjective motivation. Intense stress induced by an informal competition within a work team collectively producing a product is likely to entail efforts that exceed formal working demands. Similarly, a motivational pattern of excessive work-related over-commitment is expected to generate more stress than routine work demands. In such situations, employees may consciously or unconsciously strive for consistently high-performance levels because of their underlying need for approval and self-esteem at work (Creed et al., 2017). This motivational pattern contributes to a 'high-cost/low-gain work experience even outside stressors' (Rugulies et al., 2017). The lack of multifaceted options available to workers in the labor market leads to intense job competition and the compulsion to demonstrate excessive commitment at work. These high and stressful costs relative to low gains and returns are embodied in the ERI model and indicate contractual reciprocity failure.

The ERI model may apply to work populations in several parts of the world. Siegrist et al. (2019) noted that the model foregrounds the core social role of paid work in adult life and from a sociological perspective. They pointed out that it incorporates the powerful effects of socio-structural inequalities on status acquisition and control, whereby socio-structural conditions serve as external constraints against individual

options. An individual's likelihood of attaining their planned goals depends on their location within a vertical social structure. This structure distinguishes individuals' status positions according to their access to core resources, such as authority, power, influence, and prestige. Siegrist et al. (2019) concluded that the social opportunity structure, in general, and the labor market's opportunity structure, more specifically, contribute to unequal life chances for individuals, which encompass the quality of their work and related rewards. Employees offered costly, high effort jobs versus low return jobs are exposed to unpaid work environments and endure deprivations and different types of work-related stress that affect their health and well-being (Mäcken, 2019). Employees may thus encounter the abovementioned stressors during their working life cycle within an unhealthy working environment. These conditions are likely to occur across a diverse range of employment sectors, jobs, and socio-economic and socio-cultural contexts, notably in labor markets in the current context times of a globalized economy.

Some researchers have criticized the ERI model, arguing that it is overly complicated. Eddy et al. (2017) have argued that separate measurements of the effects of efforts, rewards, and overcommitment and the effort-reward ratio and interaction between the ERI and overcommitment do not add value analysis. Similarly, Harvey et al. (2017) observed that effort, reward, and overcommitment adequately explained their study's findings, which were not significantly affected by the imbalance in these variables. The results of other studies contradict the three hypotheses of the ERI model (Penz et al., 2019; Wolfe & Patel, 2019). They refute that the ERI model interventions aim to

transform working conditions to reduce the imbalance between efforts and rewards and prevent adverse health effects and consequences associated with this imbalance.

Alternative Theories

I will discuss in this section the alternative theoretical constructs that I deemed unsuitable for my study. My study focused on work-related stress and examined how an imbalance in employees' efforts- and rewards affects their development and influences work-related stress. Although the alternative theories discussed below have practical applications, they do not focus specifically on the relationship between efforts- and rewards.

Quality of Work-Life Model

The QWL theory describes an individual's broader employment-related experience. Some studies have highlighted the importance of applying the QWL theory for employees and employers and national economic performance. Rathi and Lee (2017) found that managers' lack of support contributes to work-related stress among employees. Other researchers have focused on organizations' support and commitment to job design (Batvandi & Ghazavi, 2017). Cetrano et al. (2017) pointed to the need to build healthy and appropriate relationships between team workers and their managers and provide adequate training for acquiring and enhancing QWL to reduce work-related stress. Thus, the literature highlights the importance of organizational commitment. Guest (2017) identified common types of employee development, notably growth, job security, interactions, social integration, human capabilities, social rights, and the compensation system. Moreover, providing fair rewards and attention to the work environment while

empowering employees and offering them greater work flexibility are critical dimensions of employee development. These measures would enhance employees' health and well-being and promote a healthy work environment.

Thus, the above studies have shown how attention to employees' QWL promotes their well-being and job satisfaction, which, in turn, impacts their work-related stress. Kim et al. (2017) suggested that stable psychological capital is required for QWL to mediate well-being and work-related stress. Specifically, individuals' psychological capital sustains positive states of hope, optimism, resiliency, and efficacy and moderates job satisfaction about QWL. Rathi and Lee (2017) found that QWL has closely correlated with any organization's commitment to maintaining its employees' well-being. Optimal work-life conditions will improve an employee's working life and job satisfaction, but they may also constrain aspects of their overall personal life and well-being (Cetrano et al., 2017). Regularly conducted assessments of the QWL can potentially provide organizations with important information about their employees' welfare relating, for example, to their job satisfaction, general well-being, and work-related stress.

Herzberg's Motivation-Hygiene Theory

Herzberg's theory, also known as; the two-factor theory, posits that two factors, namely hygiene and motivation, affect employees' basis in the workplace. Herzberg et al. (1959) described the mediating impact of an employee's working environment on job satisfaction. Key *hygiene* factors include a firm's regulations and policies, employees' internal relationships, working conditions, and the salary disbursement system (Alshmemri et al., 2017). Motivational factors promote a sense of well-being and

institutional belonging among employees through practices entailing recognition and providing rewards and fair compensation (Alshmemri et al., 2017). A comparative study of these two factors' effects revealed that motivation enhances employees' satisfaction, whereas hygiene decreases job satisfaction.

The two-factor theory posits that whereas certain factors in the workplace induce job satisfaction, a separate set of factors causes dissatisfaction, with each set functioning independently of the other. Chinyio et al. (2017) found that employees satisfied with their jobs will stay in their careers. Studies have further shown that the best way of enhancing work conditions relating to performance and profitability is to mitigate the work-related stress and existing strain and pressures that affect employees (Alshmemri et al., 2017; Chinyio et al., ,,, 2017). One in-depth investigation found that missing hygiene items, such as any compensation systems, will affect employees' passive effects (Holmberg et al., 2018). Robust and widely endorsed compensation systems and transparent career development practices will ensure employees' commitment and strong connections with their companies (Mburu, 2017). The literature supports Herzberg's premise that organizational compensation systems encompass rewards, benefits, and wages while inducing job satisfaction.

Maslow's Hierarchy of Needs Theory

Maslow's hierarchy of needs had used to study how individuals intrinsically participate in behavioral motivation. Maslow has developed a theory of human motivation based on five needs (Maslow, 1943). Also, the researcher categorized the essential needs, such as food, clothes, water, and housing, as foundational needs.

Maslow's theory supposed that human motivation will focus on surviving and fulfilling their most basic needs (Maslow, 1943). The theorist Maslow (1943) explained that the individual's needs are self-motivated, driven by the desires and aspirations that nourish the body and the mind to maintain its movement and moderate its balance. The researcher refers to the self-esteem that occurs when an individual feels self-confident, self-worth, and recognition for job performance (Maslow, 1943). Therefore author indicated that the person's esteem needs to feed into self-actualization, be what an individual is or has meant to be, and be happy doing it (Maslow, 1943). Kanfer et al. (2017) stated that the second importance of psychological needs is self-fulfillment. The researcher determines employees' essential motivations in completing the tasks they entrust. The need to expand Maslow's theory to consider the workplace's needs has arisen (Kanfer et al., 2017). They added that esteem needs could control the environment, and the employee feels incompetent when losing control (Kanfer et al., 2017). Other researchers identified the employees' needs by linking them to one of the work examples represented in introducing safety measures when the employees are unaware or cannot estimate the unexpected events surrounding them (Güss et al., 2017). Authors proved that if the working task criteria are understandable by an employee, motivating them to complete their assigning works interestingly and enjoyably (Güss et al., 2017; Kanfer et al., 2017). They also clarified the state in which individuals become. When meeting their basic needs, they will climb the hierarchical ladder to satisfy their social affiliations of acceptability and interaction (Güss et al., 2017; Kanfer et al., 2017). From the above evidence, Maslow's classification hierarchy revised over time. Thus, the order of needs

remains an overall framework in management training and secondary and higher psychology education.

Limitations of Alternative Theories

The following section addresses the limitations of the alternative theories that I did not choose as the theoretical framework for my study. My study focused on employee work-related stress and how the loss of incentive systems could affect employee development and influences employee work-related stress. Rathi and Lee (2017) indicated that Herzberg, who formulated the QWL theory, identified the factors associated with an employee's work life and job satisfaction and the expected degree of adherence to the organizational requirements. The QWL theory focuses mainly on the quality of life at work and tests the rate of job satisfaction, the suitability of the working environment, and workers' well-being (Bahrami & Habibzadeh, 2017). However, as Guest (2017) noted, the QWL theory has certain limitations that become apparent in investigations of the application of HRM about workers' performance and well-being.

I did not choose this theory as my analytical framework because of the limitations mentioned above. It does not consider the risks and potential challenges of an imbalance between employees' efforts and rewards. Although the theory focuses on the factors that predict work-related stress, it does not cover the variables that I intend to measure in my study. Another theory comparable to my selected theory regarding the determinants it covers is Maslow's theory of the pyramid of needs, which centers on workers'' needs based on their levels of interest (Fallatah & Syed, 2018). According to Kanfer et al. (2017), this theory focuses on the research adopted on the level reached by the employee

before moving to the second level. Kanfer et al. (2017) furtherly observed that the needs associated with this theory do not feature among the particular resources used by employees to build and maintain their status and develop a positive outlook or overcome negative emotions and potential pressures. Bakker and Demerouti (2017) suggested that stress at work emerges as responses and outcomes when work resources and orders induce a state of imbalance and pressure workers. The current research has provided evidence that employees'' choices are based on their preferences and needs.

The alternate theories may provide helpful information but will not focus specifically on employment contracts capabilities. However, the purpose of my study is to determine if the threat or loss of management practices is associated with development and influence work-related stress. Maslow's hierarchical theory of needs focused on employee needs based on level of importance (Maslow, 1943). Kanfer et al. (2017) has pointed to existing research that sheds light on employees' needs, based options, the trade-offs, and the urgency associated with their choices. Researchers have demonstrated that the hierarchical theory of resources does not enhance building workers' well-being or reduce their potential work stress. Thus, it is considered a valuable resource for workers (Kanfer et al., 2017; Maslow, 1943). Therefore, the chosen theoretical model contains the appropriate variables to measure and provides a valuable theoretical framework for my study.

Employee Incentives System

An incentive system is a formal practice used to encourage specific actions by a particular group of employees during a defined period. An incentive is an event

experienced by an individual to reflect on an activity (Lazear, 2018). Gerhart (2017) demonstrated that, like reward systems, incentives provided to workers influence their behaviors. Cassar and Meier (2018) identified three types of roles played by organizational incentives. The first role is externally motivated and focuses on the direct impacts of individuals. Second, the dual role of incentives is symbolic and entails increased or decreased internal motivation, trust, and collaboration based on employees' understanding of the underlying incentive. Finally, the third role of incentives is process generators that impact organizational processes (Cassar & Meier, 2018). From the above evidence, a consensual and appropriately designed incentive scheme benefits an organization and leads to improved productivity. Thus, incentive programs are mainly used in business management to motivate employees. That refers to the need to examine different kinds of management practices published in the scientific literature that refers to this concept as pay for performance.

Adopting the developed and agreed-upon employee incentive systems in our time is critical in developing and spreading globalization systems, especially concerning business management specialization. In this study, I draw on Baker et al.'s (1988) work which analyzed problems relating to incentive plans to assess individual performance. Thus, they concluded that payout levels determine incentive plans. Khan et al. (2017) divided incentives into material, solidary, and purposive. The first category of incentives comprises tangible rewards like salaries and bonuses, which their monetary value can easily distinguish. The second category of solidary incentives contains mostly intangible rewards characterized by an absence of monetary values, such as socializing, belonging

to a group, fun, status, and states not directly connected to its purpose. The third category of purposive incentives is also intangible and has aligned with the incentives' end purpose. Kryscynski et al. (2021) stated that purposive incentives have often equated with the organization's goals. Other researchers referred that reward systems, reward strategy, incentive plan, and incentive structure are used in the literature to describe the methods or programs designed by organizations to influence their employees (Gunawan et al., 2019). Reward systems achieve control within organizations and define the individual and the organization (Alferjany et al., 2018). As for reward systems, questions arise regarding the incentives an organization should offer its employees to influence their behavior (Lazear, 2018). The above appears that the literature contains a diverse range of best practices for designing incentive reward systems, thus indicating a need to review what I envision concerning this study.

Employee Development System

Employee development improves employees' existing competencies and skills and develops newer ones to support the organization's goals. Hezlett and McCauley (2018) identified critical aspects of the HRM process, which center on its development. They concluded that employee development investments create optimal working conditions; by showing interest in them and their interactions with their work and value. The latest interpretation of the concept of employee development has derived from two perspectives. Some researchers see the employee development process to help individuals reach their personal goals through self-development (Walker & Reichard, 2020). The second perspective is that employee development is a strategic, organizational process

that prioritizes collective goals over individual goals (Baumgartner & Rauter, 2017). From the above, if an organization intends to implement its plans successfully, it must advance its employees' personal goals by fostering a system for their development. Thus, it appears the need to go through different kinds of employee development practices to explore which comply with my research study purposes.

Other studies indicate no clear and specific explanations for employee development and that its implementation entails complex problems. Moreover, applications tend to involve a combination of inappropriate and discrete learning experiences rather than comprising a set of focused, integrated, and emerging development opportunities (Jangbahadur & Sharma, 2018). According to Abualoush et al. (2018), employee development covers employees' skills, abilities, and knowledge. One study found that an effective employee development process, considered one of the challenges relating to opportunities arising from organizational methods, could accomplish individual and corporate goals (Osborne & Hammoud, 2017). Employees' capabilities have developed through basic employee development programs, so investing in them is beneficial for developing employees and organizations (Al-dalahmeh et al., 2018). Therefore, effective employee development programs provide opportunities to strengthen employees' capabilities and encourage them to implement current and future tasks (Rangus & Slavec, 2017). Organizations are starting to appreciate the need for unbiased, accurate, and timely information regarding their performance. Sharma and Sharma (2017) argued that organizational leaders must have specific employees' expectations to perform better than their competitors. Accordingly, they must establish

their employees' development practices to impact organizational effectiveness positively. Mackay (2017) summarized employee development items' practices needed to establish a competitive advantage, extend employees' working lives and create and maintain long-term organizational assets. As practical experiences gained from different learning opportunities accumulate, employee development becomes challenging to measure, as these experiences encompass both individual and corporate behaviors and outcomes.

Moreover, organizations must apply practices for developing employees to acquire sustainable competitive advantages and improve employee performance. These requirements induce some organizations to incarcerate employees with higher skills and knowledge, increasing their stress (Mackay, 2017; Nelissen et al., 2017). Studies have shown that employee stress caused by work demands is significantly affected by employee development (El Bedawy et al., 2017). They have demonstrated a negative relationship between employee development and work-related stress (El Bedawy et al., 2017). The above studies seem essential to conduct employee development practices, which led to examining more appropriate practices for organizations to implement.

Further demonstrated that other work-related stressors mediate employees' characteristics, traits, and behaviors. Thus, it is crucial to investigate how to apply the employee development process in optimal ways to reduce and try to eliminate work-related stress. Such stress sources lie in complex procedures and successive innovations within challenging global work environments characterized by increasing demands for state-of-the-art skills in workers, especially in the energy production industry (Liu & Lo,

2018). Lee et al. (2018) found a negative correlation between reward and stress. Therefore, the absence of employee development practices could induce employee stress.

Existing studies have attempted to develop a unified formula that combines a method and procedure for measuring employee development, as a precise method for achieving this purpose does not exist. Employee development is one of the integrated methods adopted by employees and organizations to develop workers' skills, attitudes, and performance toward the desired level of organizational sustainability (Chams & García-Blandón, 2019). Another study found that employee development programs and applications help organizations reach their goals and develop their members' job-related capabilities (Chaudhry et al., 2017). An organization's operations have based on the activities of its workforce or employees. If employees work hard, demonstrate commitment, and apply all their capacities, they succeed.

Given that employees are at the core of an organization, their advancement or development indirectly or directly leads to their product or promotion (Hussain & Wade, 2019). Therefore, most organizations assist their employees in planning and designing a self-development program (Jehanzeb, 2020). The findings of a study conducted by Kozhakhmet et al. (2019) suggested that companies should use different strategies for developing employees' psychological capital, leading to increased knowledge-sharing behavior. Thus, studying the relationships between employee development systems and work-related stress could affect companies' profitability.

Organizations can invest in employees' development in various ways, and diverse developmental activities may benefit. Studies have shown a proactively availing of the

different methods of developing human capital, and their comprehensive and practical application strategically complements employee training and development (Dachner et al., 2019). Nelissen et al. (2017) showed that employability has enhanced through developmental activities and that implementing such activities increases the risk of losing top employees who may seek employment elsewhere. Conversely, another study: found that employee development influences work motivation, work behavior, and employee performance (Regen et al., 2020). State of the Industry report estimated that in 2008 U.S. companies spent $134.1 billion on employee learning and development (Van Buren & Erskine, 2002). The management development process had defined as how employees acquire the appropriate competencies to reach the stage of effectiveness and administrative efficiency (Dragoni et al., 2009). The above studies' findings provide conclusive evidence relating to employee development's importance and critical impacts. I will therefore examine the relationships between employee development and work-related stress to assess these relations' effects on organizational profitability.

Employee Work-Related Stress

The initial concept of work-related stress has derived from the biological and physical sciences. A study conducted by Kabakleh et al. (2020) found that employees have connected in their work because of an absence or failure of development processes. Their findings are closely correlated with subsequent studies on stress experienced at work and associated behavior. Hanson et al. (2017) have argued that job-related stress has become a vital research topic given the magnitude of its impacts, especially those associated with physical disorders like high blood pressure. Kumar and Kamalanabhan

(2017) noted that the employees are subjected to daily stressors, for example, those relating to uncooperative supervisors or collaborating with their family problems. Castillo-Gualda et al. (2019) found that stress contributes to depleting employees' resources and minimizes the quality of their social relationships with their family members and friends. Martin-Soelch and Schnyder (2019) observed that employees' negative interactions within their work environments could induce tension, leading to long-term depression and health concerns, such as heart attacks. Halpin et al. (2017) stated that one of the primary reasons for work-related stress was a lack of appropriate management practices and inadequate communications. Other researchers have defined work-related stress as a situation when an individual is under pressure or is subject to multiple demands that exceed the thresholds of their tolerance or coping abilities (Adiguzel & Kucukoglu, 2019). Thus, I could conclude from the above studies that work-related stress is the adverse reaction that employees have to excessive strains or other types of demands placed on them in the workplace.

If such high-level stressful situations continue unabated over long periods, they can cause behavioral, mental, or physical diseases. Ouellette et al. (2018) defined stress as a passive emotion experienced by an individual in specified situations, associated with frustration, anger, anxiety, and tension. Yu et al. (2015) suggested that work-related stress occurs when work demands and requirements exceed an employee's capacities. Moreover, work-related stress reactions can happen immediately or sometime after the event at any time and place.

Measurement of Employee Incentive Variable

Changes in the construction of the reward components of the ERI model are also apparent in the literature. Taba (2018) showed how reward systems could be contrary. Mutambudzi et al. (2018) applied the original model's reward components: money, self-esteem or approval, and status control. However, some recent studies reveal changes in the reward components. For example, one study applied the following terms: money, self-esteem, and job security/career opportunities (Nigatu & Wang, 2018). Despite these changes, the model's premise has remained the same. Studies have revealed that the model has often been adapted to different cultural contexts, reflecting the use of other measures in, for example, Brazilian, Japanese, Chinese, Italian, and Norwegian versions of the scale (da Silva et al., 2021; Nguyen Van et al., 2018; Yaginuma-Sakurai et al., 2020; Zurlo et al., 2018). A Finnish study also revealed the ERI model's strengths and advantages (Hyvönen et al., 2018). That supports the above previous argument for the benefits and the importance of using the ERI model.

The reward subscales in the above studies included career opportunities, job security, and self-esteem. According to Siegrist et al. (2004), the self-esteem subscale measures the respect and support an employee receives from superiors and colleagues. The career opportunities subscale measures how the employee feels about their job promotion opportunities, and their current position reflects their education status. This component also includes the employee's perceptions of the adequacy of financial rewards. The job security subscale measures undesirable changes at the workplace and a general feeling of job security (Siegrist, 1996; Siegrist et al., 2004). There appears to be a

correlation between employees' ages and their rewards experience, particularly among men.

Moreover, highly educated employees and those employed at higher grades seem to gain more rewards than those with lower education levels and employment grades (Siegrist et al., 2004). In companies that award achievements with bonuses, employees can earn more by doing more. Next, I will introduce self-esteem, job promotion, and job security subscales.

Self-Esteem

Self-esteem refers to the respect that employees deserve from their superiors and colleagues. The care that employees receive is a supportive resource under challenging situations. Self-esteem also was referred to fair treatment at work and, finally, to superiors' consideration of the employee's efforts and achievements leads to the prestige they deserve at work (Siegrist et al., 2004).

Job Promotion

The employee considering about their job promotion prospects are lacking or not. The current occupational position adequately reflects their education and training. They think of all their efforts and achievements at work; chances are adequate or not. Also, considering all their efforts and achievements, salary/income is sufficient or not (Siegrist et al., 2004). The career opportunities component measures how the employee feels about their job promotion opportunities, and their current position reflects their education. This component also includes how the employee experiences the financial rewards (Siegrist, 1996).

Job Security

Job security has defined the probability that an employee will stay at their job; a job with a high stage of safety is such that a person with the job would have a slight chance of losing it. The employee considers if they have experienced or expected to experience an undesirable change in a work situation; also, they referred if their job security is inadequate (Siegrist et al., 2004). The job security component refers to unwanted changes at the workplace and a general feeling of the safety of keeping the job (Siegrist, 1996).

Optimal methods and procedures for applying the ERI model, which constitutes the theoretical basis of this study, emerged from this literature review. I intend to use the ERI short version- model developed by Siegrist et al. (2014) and measure the effort with items scored using a 4-point Likert scale. Researchers have recommended the consistent use of a 4-point Likert scale for all sections of a questionnaire to facilitate measurements within future studies. Rewards measured with seven items, the sum score will vary between 7 and 28. A lower score corresponds to an individual's expectation of fewer occupational rewards. The established procedure for analyzing data entails estimating single-scale relations and their interactions with outcomes of interest. In this model, a core theoretical assumption is that the effort and reward scales expressed together in a ratio could reveal the imbalance between efforts and rewards at the personal level. The quantification of an imbalance at this level captures important additional information obtained with a simple indicator used alone. This method is comparto otother the for method used in epidemiological studies (Siegrist et al., 2014). The effort score was used

as the numerator in calculating the ER ratio. The denominator's reward score is: $ER = E/Rx$C, where E -represents the effort score, R- represents the reward score, and C- represents a correction proposes factor that adjusts to the unequal number of items on which the effort and reward scores has based. Experienced rewards tend to increase with age, particularly with men. Also, high-educated people and people working on higher employment grades seem to experience more rewards than low-educated and low employment grade people (Siegrist et al., 2004). Payment based on the results provides an opportunity for employees to get more by doing so.

Measurement of Employee Development Variable

Organizations must invest in their employees ' development to maintain and advance their knowledge, skills, and capabilities in the current context of a fast-changing global economic environment. Lee and Bruvold (2003) applied nine measures for theorizing employee development. These measures were subsequently revised and further developed in a study that included seven elements and a stratum with a validity ratio of 0.91. Kuvaas and Dysvik (2009) conducted three studies that covered 826 Norwegian employees working in diverse industries. The desired modifications make to the workers' evaluation of their companies with a continuous commitment to research related to employee development instead of previous applications. Other researchers have confirmed that the seven measures used to assess employee development investments are stable and applicable to various professions and industries (Solberg et al., 2020). Next, I have introduced the two constructs of employee development systems: organizational support development (OSD) and PCO.

Organizational Support for Development

The technical engineering sector specialized in producing and distributing electric power is one of the first sectors—the importance of training and developing its personnel highlights maintaining modernization and technological interaction. Previous research indicated the importance of the participation of the technical engineering sector in continuous learning activities and knowledge of the latest technologies developed to avoid obsolescence and maintain the quality and effectiveness of performance (Dubin, 1977). Researchers developed a broad construct to evaluate the climate for technical updating, including several extents that assess organizational policies and practices related to development (Kozlowski & Farr, 1988). These extents include information exchange, rewards, and resources that emphasize achievement, challenging job requirements, minimal work strain, supervisor aids, and organizational support for updating. Lee and Bruvold (2003) are interested in developing support's effect on more general employee work attitudes and behaviors. Also, they have tended to include peer and supervisor support and organizational policies and practices as sources of developmental aid.

Perceived Career Opportunity

This construct has referred to the second item related to the employees' viewpoint to the extent that their institutions implement their interests and career aspirations with the tasks and job opportunities available in the field of work of these institutions. Kraimer et al. (2011) have defined PCO as employees' perceptions of the level to which work tasks and job opportunities that apply to their career interests and goals are available

within their current organization. The critical aspect of this definition is that it reflects employees' perceptions of the opportunities within the organization relative to their own subjective career goals and interests; these goals may or may not involve promotion and upward mobility along a vertical career track.

Each employee's career interests may differ, individuals in the same organization may hold different perceptions of the organization's career opportunities. Arthur and Rousseau (2001) believed that PCO is a crucial contextual construct because careers have become increasingly boundaryless and self-directed in what had widely recognized as the era of the *new employment relationship*. Thus, employees' perceptions of how job opportunities within the organization match their career goals and interests are likely subjective and somewhat malleable. PCO has considered an important contextual variable that influences employees' reactions to organizational development efforts. These studies reveal several sources for measuring employee development: HRM applications (Michael, 2019) and leadership development applications (Kiersch & Peters, 2017). Jangbahadur and Sharma (2018) have established an application version for measuring employee development consisting of 42 items measured using a 5-point Likert-type scale, with scores ranging from *strongly disagree* to *agree strongly*. I intend to use the application developed by Kraimer et al. (2011), which comprises nine items measured using a 7-point Likert-type scale, with scores ranging from 1 = Strongly Disagree to 7 = Strongly Agree.

Measurement of Employee Work-Related Stress Variable

There are two categories of work-related stress: positive and negative stress. Positive stress refers to work stress that benefits employees' career growth, such as job responsibility and time urgency. However, negative job stress, which includes stress caused by a lack of appropriate organizational practices or inappropriate practices, cannot be eliminated (Yang et al., 2017a). Studies have shown that work-related stress may reduce employees' work commitment and performance (Odor, 2019; Yang et al., 2017b). Hoboubi et al. (2017) have argued that stress impacts an organization and its employees' mental, behavioral, and physical outcomes, including commitment, job satisfaction, and performance

I have reviewed different stress measurement studies relevant to the study's purposes. Allisey et al. (2014) identified various employee stressors, including psychosocial conditions, such as inappropriate support, a lack of collaboration, inadequate staff, and insufficient skill sets. Zhang et al. (2019) examined three coping strategies for handling work-related stress: cognitive-appraisal, emotion-focused strategies, and problem-solving. Another study found that work-related stress is associated with pressure related to time constraints, anxiety, and concerns about job demands, requirements, and responsibilities (De Clercq et al., 2020). Hassard et al. (2018) measured job stress-induced by occupational insecurity, performance appraisals via the forced distribution method, salary reductions, and benefits. I will consider two dimensions of the work stress scale. The first consideration concerns the work stress scale formulated by Steinisch et al. (2013) as an instrument type inventory/questioner

measuring work-related demand, interpersonal resources, and work-related values. The second measurement of the stress variable comes when measuring the effort and reward variable by adopting its ratio. This measurement will indicate the situation of an employee participating in this study. It will tell if they experience any level of stress.

Work-Related Demands

The work-related demands were referred to if any employee's job was physically demanding. Consequently, employees are under constant time pressure that results from a heavy workload. Moreover, they are constantly worried about making mistakes at work and may have encountered abusive language during the last six months (Stanhope, 2017; Strümpell & Ashraf, 2011).

Interpersonal Resources

The interpersonal resources referred if any employee has received adequate support in difficult situations. The employee has considered that all their efforts and salary are exemplary. The employees have received the recognition that they deserve for their work. The employees could trust the information from the management, and finally, the administration could trust the employees to do their job best (Stanhope, 2017).

Work-Related Values

Work value means measuring the job's worth compared to the relative cost of other jobs in the organization. Work Value is determined by systematically evaluating knowledge and skills, job task complexity, and decision accountability. The work-related values were referred to if the employee feels that their job promotion prospects are poor,

their job security is inadequate, and they have very little freedom to decide how to do their work (Stanhope, 2017).

Research Applying the Effort-Reward Imbalance Model

The ERI model focuses on stress caused by an imbalance between workers' efforts and rewards. The model's core premise is that when individuals invest a high level of effort in their work, they expect to receive corresponding rewards. If they do not accept these rewards, they will experience increased stress. The (ERI) model is the second most influential health psychology research model after the demand-control-support model (Schonfeld et al., 2018). Importantly, this model links job demands to employees' rewards (Gorgievski-Duijvesteijn et al., 2018). Mutambudzi et al. (2018) confirmed the risk of stress-induced diabetes among workers in the United States through the independent use of the ERI and job demand-control models.

Moreover, these models revealed differentiated and complementary characteristics valuable for evaluating individuals and organizations. Although both models explain social and psychological imbalances, they entail different concepts. Consequently, psychological and social illnesses and stress vary across professions (Mutambudzi et al., 2018). These researchers indicated that the ERI model is preferred over the job demand-control model and outlined the advantages of each of them, focusing on the ERI model. Thus, they elucidated the causes and consequences of imbalanced compensation systems, leading to psychological and social illnesses resulting from the work pressures that this model captures.

Neurohormonal pathways thought to have mental impacts on physical health may be activated by high levels of work-related effort coupled with low levels of control over job-related intrinsic factors, such as recognition, and extrinsic factors, such as pay rewards. In the ERI model, work-related stress conceptualizes a deficit of justices in terms of joint efforts expended in work and consequently acquired rewards (Siegrist, 1996). The model highlights social reciprocity and reflects unfairness at work (Siegrist et al., 2004). In this model, effort refers to the demands and obligations faced by the employee, and reward refers to the money, self-esteem, and career opportunities or safe working conditions that the employees may obtain, not only from the employer but also from the surrounding community (Mo et al., 2020). The ability to measure the number of stress workers within diverse work sectors experience using the ERI model distinguishes it from the job demand-control model that features the literature.

The stress ERI model, which focuses on stress factors, such as job insecurity, job changes, career promotion prospects, and an inadequate payment system, has advantages over the JCD models (de Araújo et al., 2019). The ERI model's underlying hypothesis is that an imbalance arises from extensive effort and an incommensurate reward, leading to a higher risk of a poor health outcome than the risks associated with each of the components considered independently (Murtaza, 2017). A lack of reciprocity invokes passive negative feelings in an employee (Siegrist, 1996), which increase their susceptibility to illnesses over time because of sustained responses to pressure within the autonomic nervous system (Siegrist, 2005). The impacts of these situations included decreasing work efforts, persistent complaining, and withdrawal from social interaction.

The most committed employees experience sadness and a sense of injustice to a greater degree than less committed employees (Barclay & Kang, 2019). Thus, the ERI model has based on the principle of an imbalance or inequality of reciprocity in the work system, with expended efforts exceeding the rewards gained and low returns, causing distress resulting from continuous stress.

Companies and enterprises are increasingly adopting applications and tools that meet justice requirements in distributing rewards and incentives, especially material ones, to keep pace with rapidly changing working conditions in a globalized environment. As previously noted, the stress resulting from an effort-reward -imbalance leads to mental health issues (Harvey et al., 2017). Different stress models reflect varying psychosocial aspects of the working environment (Inoue et al., 2018). The JCD model highlights task-level control, whereas the ERI model emphasizes employees' rewards (Siegrist et al., 2004). According to Siegrist (2001), the ERI model's reward concept reflects distributive justice, indicating how employees perceive fairness relative to their contribution.

The absence of a commensurate reward with expended effort, a lack of career opportunities, meager financial growth prospects, or insufficient recognition by colleagues and leaders, is perceived as unfair by employees. One study found that workers whose responses to the items measured with the ERI model indicated the highest scores were more prone to the risk of experiencing stress at work compared with others workers (Ge et al., 2021). Unfair treatment and feelings of frustration may prompt workers to violate norms and thus face penalties. Moreover, one study found that employees who were not rewarded for their effort were apathetic and avoided social

interactions because of their stresses, leading to mental disorders and mental and physical exhaustion (Notelaers et al., 2019). Concerns expressed by an employee about their efforts in a company that has instituted a reward program may also signal to colleagues and superiors that they have little support from management and low social standing.

The conducting a thorough investigation into the causes of work stress using the ERI model, it is necessary to apply the ERI model, a well-established theoretical model. Organizations should provide fair and appropriate remuneration to compensate employees' efforts to reduce the ERI (Devonish, 2018). More generally, this model's applications for predicting psychological stress problems have shown that the imbalance between effort and reward is more potent than the model, which offers strength only in the gender of men (Jachens & Houdmont, 2019). Moreover, Jachens et al. (2019) showed that burnout among humanitarian aid workers is related to their efforts, demands, and occupational rewards. There is a consensus among the researchers mentioned above that the ERI model had usefully applied within interventions aimed at changing working conditions to reduce the imbalance between employees' efforts and rewards and prevent adverse health impacts and associated consequences. My selection of the ERI model as the theoretical framework for my study will enable me to study the relationship between workers' work-related stress in the energy sector and the incentive and employee development systems applied in this vital sector. The insights derived from this study may contribute to initiatives for bringing about desirable positive societal changes.

When there is a sustained injustice relating to a trade-off between an employee's effort and reward, the ERI model can predict their negative emotions with adverse long-

term health consequences. An accumulation of work-related stress can harm biological processes in individuals suffering from chronic work-related stress (Cuitún Coronado et al., 2018). More research, entailing the ERI model, is required to advance understanding of the effects of work-related stress in aging populations and determine how psychosocial disequilibrium in the work environment impacts the workforce and companies' profitability in the United States (Mutambudzi et al., 2018). Siegrist and Li (2017) applied the well-established ERI model to link work-related stress with a wide range of biomarkers among the participants in their study. Recent reviews on work-related stress and associated biomarkers have highlighted the need for further research using the ERI model, given its theoretical relevance regarding the biological stress process and trends in occupational conditions in the prevailing context of economic globalization and rapid technological change. Studies on work-related stress in which the ERI model has been applied can broaden the knowledge base on the contributions of different psychosocial work stressors that affect employees' productivity negatively, thereby decreasing organizations' profitability.

ERI-based research demonstrates that work-related stress is associated with adverse behavioral outcomes, such as increased smoking and alcohol consumption, absence due to sickness, and psychosomatic disturbances. A study entailing a large sample of male and female civil servants in Brazil indicated that stress and work, measured in terms of an ERI, were consistently associated, leading to depressive episodes within the sample (de Araújo et al., 2019). Solis-Soto et al. (2019) endorsed the ERI questionnaire as an excellent tool for assessing psychosocial risks at work and predicting

the occurrence of burn-out due to incompatibilities between professionals and their occupational contexts. Waszkowska et al. (2017) found that when there are a good fit and unity of views between managers and their organizations, the managers will face stress if their work entails high- levels of stress and if they do not receive appropriate compensation for their efforts. The ERI model enables researchers to quantify employees' stress within diverse work sectors, distinguishing it from the job demand-control model featured in the literature. Globally operating companies and businesses must link incentives to employees' efforts exposed to various stress types and employee development processes and programs to promote sustainable competition and organization continuity.

The practical dilemma of creating advanced and effective compensation systems that affect workers' health and well-being is primarily associated with achieving a balanced model of effort in exchange for equivalent rewards. Ge et al. (2021) recommended that firms or organizational administrators seek to balance their employees' efforts and rewards and provide them with career development and training opportunities to improve their health. Further, Riedel et al. (2017) validated standard measurement for an internationally established theoretical concept of stressful work associated with an ERI. Siegrist and Li (2017) summarized their findings by linking stressful works to an ERI with various workers' biomarkers related to their health situations like well-being. The above studies, including those responsible for developing the ERI model, provide clear insights, ideas, and results. They confirm the need for more longitudinal studies in this field and overtime periods in the relationships between

applications, methods, and systems in incentives and rewards systems for employees and their development systems to address work-related stress.

The ERI model focused on stress caused by the imbalance between workers' efforts and received rewards. The model's core premise is that individuals expect rewards commensurate with their high expenditure of effort in their work. If they do not accept these rewards, they will experience increased stress. Jeske and Axtell (2017) applied Siegrist's conceptualization of high and low levels of effort and corresponding rewards in examining e-internships within a computer-mediated setting. Lankinen (2018) pointed to the need for further research to explore the ERI model's mediating effects. In another study Presley (2017) highlighted the need to examine other occupational areas to further explore the ERI model's applicability, especially in occupations entailing high levels of psychological stress. The above studies reveal the essential practical applications of the ERI model. There is an evident need for scientific research in Middle Eastern countries and the developing world to contribute to fair and effective societal and economic transactions and positively impact essential industries, notably the energy industries.

Work-related stress identified using the ERI model is associated with adverse behavioral outcomes, such as increased psychosomatic disturbances. Bathman et al. (2013) found that a high percentage of individuals within their sample experienced an imbalance between efforts and rewards at their worksites, which may have induced them to engage in undesirable behaviors that led to health problems. Keser et al. (2019) concluded a significant association between ERI and depressive symptoms odds ratio (E/R) for effort-reward. Mutambudzi et al. (2018) reported high -stress levels among

adults aged 50 years and above who worked more than 55 hours a week in the United States (ERI ratio > 1.0). The benefit of adopting the equivalent ERI model in calculating workers' stress in various working sectors and distinguishing it over the other job demand-control model appears from the previous sources. The need to link incentives to employees' effort with employee development processes and programs to predict the stresses that workers could expose is one of the most current research topics for companies and businesses that compete globally to acquire sustainable competition and profitability.

Transition and Summary

The first section of this doctoral study presents the foundation, background, and problem statement of this exploratory, quantitative analysis. The purpose of this quantitative correlational research design has to test the relationship between the employee incentive system, employee development system, and employee work-related stress. The study's basis is the importance of stress experienced by workers in a particular industrial sector, which affects profitability and workers' productivity. This study's problem statement presents a rationale for selecting work-related stress as the primary topic addressed in the study. The purpose statement covers the research design and method, the target community, and the study's contribution to desirable societal changes. This chapter's literature review entailed a comprehensive analysis and synthesis of the ERI model, the theoretical framework selected for my study, and its applications within various studies. It has examined each of the three variables of the study based on previous studies' perspectives and findings and has presented measures for the variables that are

reliable and valid. The theoretical section of the literature review has also covered studies that support the opposite research.

The second section of this doctoral study included a summation of the purpose of this study and descriptions of my role as the researcher, research participants, the study's design and methods, the analytical procedure, research ethics. I also described how I chose a model and outlined its requirements. In the third section of the study, I presented the data analysis and my study results. Specifically, I browsed the findings, descriptive statistics, and multiple regression analyses. I discussed its application in business and professional practice, potential implications for societal change, and limitations and recommendations for future research and actions. Lastly, I presented reflections and conclusions based on the study findings.

Section 2: The Project

Section 2 includes the role of the researcher, details about the participants, and the research method and design. The section also discusses the data collection techniques, data analysis, and the study's validity. Finally, the area covers ethical considerations.

Purpose Statement

I aimed to examine the relationship between the employee incentive system, employee development system, and work-related stress. The targeted population consisted of administrators or supervisors of a power generation company with branches located in Jordan/Amman, Al-Mafraq, Al-Aqaba, Al-Resha sites. The independent variables were the employee incentive system and employee development system, and the dependent variable was employee work-related stress. The implications for positive social change include leaders and managers adapting effective business management practices to reduce work-related stress, thereby enhancing employees' work performance to improve power companies' profitability. Steady economic stability backed by successful financial practices will ensure a safe and stable life for families and their communities by providing better living and employment opportunities considering today's environmental economic changing conditions.

Role of the Researcher

I aligned the research with the items outlined by Walden University and the Institutional Review Board. Any researcher committing to the research project must understand their worldview and how the collection of beliefs assumptions guides their

research questions (Rahi, 2017). The quantitative method ensures that the researcher and the participants are not biased toward their feelings and visions (Rahi, 2017). Researchers who adopt the quantitative method consider their commitment to unbiased through their objective accreditation and described as relational validity (Zyphur & Pierides, 2017). But researchers must still follow the guidelines and rules that consider ethical values when conducting their research, especially during the data collection (Health & Services, 1979; Walumbwa et al., 2017). It is worth considering the *Belmont Report* on ethical principles (Health & Services, 1979). Researchers need to designate the population of the study, any potential ethical dilemmas, and the steps taken to protect participants' rights and conceal their identity and the integrity of the information they declared (Walumbwa et al., 2017). Any study's results could be affected by how the researcher understands relational and external reality through the ways ethics connected with quantitative research and its inferences from the sample to the general population of the participants (Murad et al., 2018; Zyphur & Pierides, 2017).

Participants

The targeted population of this study was the employees of a private power production company. The sample was administrators and supervisors working full time in the middle and north of the kingdom of Jordan/Amman, Al-Mafraq, Al-Aqaba, Al-Resha sites. I selected both male and female employees of any age, full-time and part-time, with roles in management or administration. I met with power operation managers and executives within the head office of the power company to discuss the purpose, nature of the study, participants' rights, and measures I used to ensure data integrity and participant

confidentiality. I provided a copy of an informed consent form later through the SurveyMonkey link to each participant, explaining the purpose of the study, a statement of any risks associated with the study, and confirmation of participant confidentiality.

Research Method and Design

Researchers investigate business problems by implementing three research methods: qualitative, quantitative, and mixed methods (Brown & Worthington, 2017; Grønmo, 2019). The quantitative research method can secure its final solutions based on conclusions that cannot be disputed or questioned (Kim et al., 2018). If researchers intend to examine the relationship between their study's independent and dependent variables, they use the quantitative correlational research method (Schneider, 2020). Thus, I used a quantitative correlational research method and design to examine the relationship between the independent and the dependent variables.

Research Method

Researchers prefer to use the qualitative research method to understand the patterns and behaviors related to the participants' perspectives and philosophical perceptions (Brown & Worthington, 2017). Researchers prefer to use the quantitative research method to test their hypotheses by examining the relationships between two or more variables of the research questions that match that hypothesis (Park & Park, 2016). Researchers must determine the analysis first and then check the method to the question (Yin, 2017). One of the challenges of qualitative methods is their lack of rigor and the difficulty of replicating the extracted data (Sarma, 2015). The qualitative approach was not appropriate for this study because I did not intend to understand the information of

the survey through inquisitions, interviews, and illustrations of personal perception and interpretation. Additionally, the mixed method includes qualitative and quantitative methods (Levitt et al., 2018), which were also not chosen. The defining feature of the quantitative research method that researchers prefer in hypothesis testing relies on the practical approach and methodology in measuring data (Sarma, 2015). The data represent the study's target population by quantifying the research variables (Queirós et al., 2017). I selected a quantitative method appropriate for this study based on the research question to understand the relationship between employee incentive, employee development, and employee work-related stress.

Research Design

There are three research designs available for researchers in quantitative methodology: correlational, experimental, and quasi-experimental (Baker, 2017). Researchers who rely on continuous observation from participants use the experimental design; others who depend on the causal inference of interventions use the quasi-experimental format (Baker, 2017). The study I conducted did not involve continuous participant observations or causal inference of interventions; therefore, experimental and quasi-experimental were not helpful for this study. The correlational design is used to examine the relationship between two or more study variables (Wu, 2018). The correlational design cannot specify causation but can evaluate any possible relationship between study variables (Apuke, 2017). Therefore, the correlational design was most fit for this study, as I tested the relationship between employee incentive, employee development, and work-related stress.

Population and Sampling

The population I investigated was from four power company sections located in different places of the kingdom of Jordan. The employee population consisted of 521 employees, with 136 employees in a supervisory or administrative position working full time or part-time in the power generation plant. I selected this organization through observations and past data regarding employee work-related stress. I expressed interest in this topic to executive staff to provide information about potential reasons concerning work-related stress that their workers may expose. I used a nonprobability sampling technique because I did not know who would participate in the survey. Researchers have also found better response rates of nonprobability sampling over probability sampling (Pickett et al., 2018). Probability sampling limits the sample and potentially creates sample bias (Pickett et al., 2018). Convenience and purposive sampling were the two techniques of nonprobability sampling (Etikan & Bala, 2017). I chose the convenience sampling technique for this study with the participants who participated in the online survey.

I used G * Power 3.1 power analysis to determine this multiple regression study; therefore, $N = 88$. Choosing an appropriate effect size helps estimate the fit sample size to avoid Type II errors and minimize the mean, standard error; Type II errors happen when researchers cannot refuse a false null hypothesis (Sullivan & Feinn, 2012). Cohen's f^2 effect sizes are 0.2 (small), 0.15 (medium), and 0.35 (large) to quantify the magnitude between the variables for multiple regression analyses (Faul et al., 2009). Researchers should incorporate an appropriate effect size when determining sample size (Faul et al.,

2009; Sullivan & Feinn, 2012). The sample size for this study, per G*Power 3.1 analysis software, ranged from 68 to 88. I used a power R^2 (1- β; error of probability) of 0.90, α = 0.05, and a medium effect size of 0.15 (f^2 =0.15).

Ethical Research

I informed the participants about the type of study I intended to establish, the legal rights of the participants, and their disclosure of the circumstances surrounding the investigation. One of the most important requirements for ethical research is respect for honest dealings and the rights of the research participants (Anderson et al., 2017). I ensured that each participant understood the purpose of the study, the participants' confidentiality, and the data extracted. As a Walden University student, I got approval from the Institutional Review Board and acquired their confirmation number (10-08-21-1015488) to start my research study. I also provided the participants with a consent form that included the study purpose, identifying the participants' rights, and the confidentiality of their participation in the study survey (see Anderson et al., 2017). They were involved as volunteers who could withdraw from the task without issues. They could also choose not to fill out or reply to any survey questions or not submit the survey forms.

I excluded the incomplete surveys in this study to prevent the skew effects of the results. I did not ask the participants to identify their names, addresses, sections, departments, or employment levels. I dealt with the company's top management on how we could encourage and motivate employees to participate in the survey without ethical research issues. The company HRM offices informed their employees of the significance

of participating in this research survey. The data will be stored and maintained in a secured location for 5 years before destruction.

Data Collection Instruments

In this section, I describe each instrument's purpose, intended populations, scales, scoring process, the time needed to complete. Subsections address the instrument's psychometric issues, reliability, and validity. Finally, I report the reliability and validity coefficients.

Measurement of Employees' Effort-Reward (Incentives) Imbalance

I selected the ERI measurement at work as the first variable (incentive or reward) for this study. Siegrist (1996) developed the model of ERI, which explains the imbalance between an employee's work-related effort and the reward they receive in return for that work. I identified that the ERI has accounted as a measuring scale for their three factors, which fit the study's investigated variables.

I administered the instrument by limiting the overall time required for the participants to finish the questioners included in the study survey regarding the measurement of employees' effort-reward (incentives) imbalance. The answers on the link contained brief instructions on how to fill and answer the questionnaires and the place to mark their answers without affecting confidentiality. The measure consists of 16 items, such as constant time stress, receiving respect from superiors, and being overwhelmed by time stress at work, divided among three scales (effort, reward, and overcommitment) rated in four steps. In action, reward, and overcommitment scales, the respondents were asked whether the item content described a typical experience in their

workplace. The items were scored as 1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, and 4 = *strongly agree*. The summary score computed for each scale ranges from 3–12 for effort, 7–28 for reward, and 6–24 for over-commitment. The effort-reward ratio was calculated by dividing the total effort score by the reward score with a correction factor for the different number of items in each scale: effort score/reward score x 1.834.

The instrument questioners have been translated into several languages to test the ERI model in different populations, including French, Japanese, Dutch, Chinese, Brazilian, Thai, Korean (Almadi et al., 2013). The three scales of effort, reward, and over-commitment have acceptable internal consistency in Cronbach's α, which is > 0.70 in the data documented and published to recognize the scale reliability. Satisfactory results reach the test-retest reliability analysis (Alves et al., 2018). There has also been a reported solid correlation between the summary estimate based on the self-controlled questionnaire and the momentary estimate (Kim et al., 2020). To report the convergent validity, researchers have documented the power of the independent explanation of the employee reward scales and compared with rankings of the demand-control model, considering that demand and effort show a range of modest to strong correlations (Lankinen, 2018; Siegrist et al., 2019). The discriminant validity in several studies recognized that the mean scores of efforts, reward, and over-commitment have no significant differences in gender, age, socioeconomic status, and other demographic characteristics. Researchers have also pointed to the ERI model as a social gradient (Griep et al., 2021). Over time, the sensitivity to change is seen in the study that ERI scales have convincing sensitivity to indicate fundamental changes (Honda et al., 2021).

The instrument with its three factors and 16-items is in Appendix A, and a copy of the permission to use the instrument is in Appendix B.

Measurement of Employees' Development

I used the measurement of employees' development (MED) as an instrument to measure the second independent variable of my study. I used the organizational support for the development and PCO scale from the Walden library database and Psyc tests and its instrument. In 2011, Kraemer et al. developed the MED by conducting qualitative and quantitative research to identify the measure and factors of employee development and validate those factors. The Employee Development Scale, as presented by Kraimer et al. (2011), identified factors that would be a more comprehensive and reliable instrument for use in relational studies, particularly in the field of organizational behavior and HRM. It can also develop the employees' skills, attitudes, and behavior and increase their performance in the long run. Thus, effective employee development programs provide a passage for enhancing the competency of the employees and encouraging them to successfully perform the current and future tasks (Osborne & Hammoud, 2017). Employee development practices are related to HRM practices (Teclemichael Tessema & Soeters, 2006). Kraimer et al. (2011) designed six items to measure OSD. Kraimer and his colleagues used the same six items as in refereed in their pilot study to capture how the employee perceives that the organization offers practices that develop employees' skills and abilities. The scale items appear in Appendix C. Participants have shown the extent to which they agreed with each statement on a 7-point scale (1-Strongly Disagree to 7- Strongly Agree). Kraimer and his colleagues averaged scores to the six items

(α=.89). They incorporated both managerial and technical skill capabilities in their items based on research by Schein (1978) that emphasized that employees, to varying degrees, are concerned with developing administrative and technical capabilities (Kraimer et al., 2011). Also, Kraimer et al. (2011) designed four items to measure PCO. They used the average of the three retained items from the pilot study they conducted to create a scale score for PCO (α=.78) as in Appendix C. The items have measured on a 7-point scale (1 = Strongly Disagree to 7 = Strongly Agree). The three-item scale (α =.85) used in the current study significantly correlated at r = .95 (p < .01). Consistent with Kraimer et al.'s study definition, the items assessed how employees perceive job opportunities within the organization that match their career goals and interests (Kraimer et al., 2011). I identified that MED has accounted as a measuring scale for their seven factors.

The selected instrument is best to use for measuring variables/constructs to the study. It has several applications for academic and practical research; the employee development factors provide a clear understanding of the concept of employee development and its features of measuring the concept. Also, the generalizability of that instrument. In several ways, I administrated the instrument, limiting the time required from each participant to finish the questionnaires included in the study SurveyMonkey regarding employee development. The answers instructions have come with brief explanations on how to fill and answer the questionnaires and the place to mark their answers; reply directly on the SurveyMonkey link; the link has not referred to or mentioned any name or hint of breaking the confidentially.

The scores have calculated by using Cronbach's alpha as per Matkar (2012); Cronbach's alpha has an average range from 0 to 1, and the closer to 1, the greater the internal consistency of the items in the scale. The MED uses a seven-point Likert-type scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree) (Lee & Bruvold, 2003). Lee and Bruvold (2003) noted Cronbach's alpha as 0.92 for the results of the study in Singapore (n = 175) and 0.85 for the study in the United States (n = 230). However, Maroof et al. (2017) studied 130 schoolteachers using the MED, and the Cronbach's alpha range from 0.60 to 0.65 does not correlate with either Lee and Bruvold's study samples. Solberg et al. (2020) investigated the relationship between MED and the internal employability efforts of employees through the perceived availability of resources and organizational support. The authors used the seven-item measurement from Kuvaas and Dysvik's (2009) modification to study 238 Norwegian IT professionals; Cronbach's alpha's internal consistency was 0.91.

To assess the validity of OSD, Kraimer et al. (2011) first conducted a principal axis factor analysis (Oblique Rotation) of the six items designed to measure OSD. Kraimer and his colleague's study revealed two factors with eigenvalues greater than 1. All items loaded above .68 on their respective factor and, importantly, all cross-loadings were below .15, demonstrating discriminant validity. The six items to measure OSD demonstrated good reliability (α =.92). In addition, they provide evidence of convergent validity. To assess the validity of PCO from its related constructs, Kraimer et al. (2011) conducted a principal axis factor analysis that included all scale items designed to measure PCO. The results of Kraimer and his colleague's study analysis (Oblique

Rotation) revealed three factors with eigenvalues greater than 1.0, explaining a total of 68% of the variance. The three PCO scale items had factor loadings greater than .64 and had acceptable reliability ($\alpha = .84$). Their study demonstrated convergent and discriminant validity for the PCO construct through the pattern of correlations among the variables in the nomological network of relationships surrounding PCO. Researchers concluded that their measures for OSD and PCO demonstrated sufficient convergent and discriminant validity with other related variables to warrant their use in the primary study (Kraimer et al., 2011). Finally, I included the instrument with its 9-items in Appendix C; and a copy of the author's permission to use the instrument in Appendix D.

Measurement of Employees' Work-Related Stress

The selected instrument is best to use for measuring variables/constructs to the study. It has several applications for academic and practical research; the employee development factors provide a clear understanding of the concept of I selected the measurement of work-related stress as the criterion variable for this research study as Börsch-Supan's (2017) study used in the Survey of Health Aging and Retirement in Europe. Steinisch et al. (2013) have developed a work stress scale based on an ERI questionnaire. The working stress items have extended with new and built on ethnography and taken from available Western scales and job content questionnaires (Strümpell & Ashraf, 2011). I identified that work-related stress as a measuring scale for their three factors. I used the work stress scale from the Walden library database, Psyc tests, and its instrument to fit the first and second predictor variables.

I administrated the instrument, limiting the time required from each participant to finish the questionnaires included in the study survey regarding the measurement of employees' work-related stress. The answers instructions came with brief explanations on how to fill and answer the questionnaires and mark their answers; reply directly on the SurveyMonkey link; the link has not referred to or mentioned any name or hint of breaking the confidentially. The measure consists of 12 items, divided among three scales such as work-related demands, interpersonal resources, work-related values. The potential factor-specific sum scores ranged from 4 to 8 for work-related needs, from 5 to 10 for interpersonal resources, and 3 to 6 for work-related values. The Cronbach's alpha coefficients for these three factors ranged from 0.42 to 0.59. While work-related demands and interpersonal resources were associated with health outcomes, work-related values largely lacked health-related associations. Several established interview instruments assess psychologically adverse working conditions assumed to contribute to the construction of work stress (Körner et al., 2019).

Responses scored in a two-stage process: First as a dichotomous variable of agreement and in a second step as the extent of dis-/agreement (a little/very much). If combined, both steps yielded a 4-point Likert-type scale (1= Strongly Disagree, 2= Disagree, 3= Agree, 4= Strongly Agree). The potential factor-specific sum scores ranged from 4 to 8 for work-related demands, from 5 to 10 for interpersonal resources, and 3 to 6 for work-related values (Steinisch et al., 2013). Internal consistency: The Cronbach's alpha coefficients for the three factors, work-related demands, interpersonal resources, and work-related values, equaled 0.59, 0.55, and 0.42, respectively. No validity indicates.

Exploratory Factor Analysis (EFA): Initially, factors identify based on an eigenvalue exceeding 1. The EFA suggested four factors based on this criterion. Since the fourth factor consisted only of one single item, and since the corresponding scree plot supported a 3-factor solution, a 3-factor solution was requested, which grouped the previously single item into one of the other three factors. All items belonging to a specific factor had factor loadings of 0.47 or higher (Steinisch et al., 2013). Finally, I included the instrument with its three factors and 12-items in Appendix E; also, as a copy of the author's permission to use the instrument from the author in Appendix F.

Data Collection Technique

I used the SurveyMonkey link to collect the data from the study participants. Blumenberg and Barros (2018) have proved that low access rate as 39% in paper-based responses compared to web-based responses. Thus, I directed the participants to answer the study questionnaires using the SurveyMonkey link features. In the study region of Jordan, the easy-to-access paper-based surveys could increase response rates. Therefore, allowing any employee to complete the study at their leisure could potentially increase the response rates. I am not delivering the surveys directly to the study population to avoid trap biases and potential violations of ethical standards in research data collection.

The SurveyMonkey link used in this study has consisted of five main sections: Informed consent form and four sub-sections. The first sub-section included demographic data about the participants who intend to share their answers, including a question considering their role levels as supervisor or manager or others, years of service in that role, age, and gender. The second sub-section consisted of measurement of employees'

effort-reward (incentives) imbalance (see Appendix A) to measure the independent variable employees' effort-reward (Incentives) imbalance and the answers instructions. The third sub-section measured the independent variable employees' development (see Appendix C) with its answer instructions. Finally, the fourth sub-section consisted of the answers instructions and the employees' work-related stress (see Appendix E) to measure the dependent variable work-related stress.

Data Analysis

The research question is: What is the relationship between the employee incentive system, employee development system, and employee work-related stress?

The hypotheses for this study are:

Null Hypothesis (H_o): There is no statistically significant relationship between the employee incentive system, employee development system, and employee work-related stress.

Alternative Hypothesis (H_1): There is a statistically significant relationship between the employee incentive system, employee development system, and employee work-related stress.

I collected the data and analyzed them using descriptive statistics and multiple regression analysis by implementing 27 versions of SPSS software. Descriptive statistics demonstrate the mean and standard deviation of the data distribution and summarize the descriptive data. I used multiple regression analysis to evaluate whether the independent variables could predict the dependent variable. According to Plonsky and Ghanbar (2018), multiple regression analysis examines the independent variables' effect on the

dependent variable. Plonsky and Oswald (2017) determined that multiple regression analysis predicted the outcome of the dependent variable based on the relationship with the independent variables. I am not chosen Pearson's correlation coefficient because researchers use this procedure to analyze the relationship between two variables. The other statistical analyses were not fit because they could not test the relationship between the predictor variables and the employee work-related stress criterion. I have input the data from the SurveyMonkey link into a Microsoft Excel spreadsheet for data analysis before transferring to SPSS; I excluded the incomplete surveys or surveys that do not match the inclusion criteria in the study to prevent data integrity. I stored the MS Excel spreadsheet with the data analysis for five years in the same secured place as the raw data.

Williams et al. (2013) have used multiple regression analysis to test the four assumptions to prevent bias or untrustworthy information. They stated the four assumptions: normality, linearity in the parameters, independence of errors, and measurement error. Also, researchers define errors, in assumptions, as a difference between the observed values and the predicted values of the regression model. Williams and his colleagues described normality as assuming the independent variables have generally distributed without assuming the normal distribution of the dependent variable. They thought that the linearity in the parameters of the independent variable is a linear function of the dependent variable.

In contrast, the relationship between the independent and the dependent variables does not have to be linear. Also, researchers assumed that the independence of errors has

unbiased estimates of standard errors and test significance. They thought that homoscedasticity is the fourth assumption, and it has a constant variance for each level of the independent variable measured. Finally, Williams and his colleagues suggested using histograms to test the normality of distribution and scatterplots to test the homoscedasticity assumption (Williams et al., 2013). I tested collinearity in SPSS using linear regression to examine the relationship between the two independent variables to see if a linear relationship exists.

Study Validity

Researchers must understand and become familiar with the importance of threats to the internal and external validity of the research. Researchers have referred to observing behaviors that refer to internal validity and factors in cause-and-effect relationships (Aguiar, 2018). So, I am not addressing internal validity; the study design does not implement an experimental procedure or investigate the cause-and-effect relationship between predictor and criterion variables. In searching for consistency of study results across the study population, the importance of research in external validity emerges (Steckler & McLeroy, 2008). Researchers evaluated content, criterion, and construct validity as instrument validity to confirm instruments accurately measure mentioned criteria and could apply in the real world (Ko et al., 2017). According to (DeMonbrun et al., 2017; DeSmet et al., 2018), the instrument validity mentions the degree an instrument claims to measure and confirms through Cronbach's alpha or confirmatory factor analysis. DeMonbrun et al. (2017) found validity by correlating scores of the new instrument with scores of similar instruments. The internal consistency

of the measurement of employees' effort-reward (incentives) imbalance dimensions is effort as 0.79, reward as 0.85, and over-commitment as 0.87 (Sepehri Shamloo et al., 2017). The MED internal consistency is 0.91 (Solberg et al., 2020). The measurement of employees' work-related stress internal consistency is 0.85 (Karatepe & Olugbade, 2017).

I used SPSS statistical software to analyze the data, provide visual representations, and graphical displays to enhance the understanding of the data to increase the study's external validity. I confirmed that the participants have real representatives of the targeted population to ensure the study's external validity. According to Steckler and McLeroy (2008), external validity threats happen when the participants are not part of the intended populations. I discussed the nature and purposes of the study, the intended population, data collection techniques, the importance of participation in the survey to the company under investigation, and the implications that this study could have on social change. All of that could prevent threats to external validity. The intention population for this study was one of the private power plant employees in the kingdom of Jordan. Researchers stated that statistical conclusion validity happens when participants cannot reply to measurement questions appropriately and affect the variables' correlation. They also noted that failure to reach correct conclusions threatens the statistical conclusion validity (Cheung et al., 2017). Wetterslev et al. (2017) suggested that the critical thing was to avoid Type I or Type II errors by familiar with their study's research process and statistical methods. They also advised researchers to confirm that their instruments complement the mentioned variables under

investigation, decreasing any chances of trapping the Type I or Type II error (Wetterslev et al., 2017). I selected the fit instruments for this study's research design and method to effectively measure the relationship between employee incentive, employee development, and employee work-related stress.

Transition and Summary

This quantitative correlation study has examined the relationship between employee incentive system, employee development system, and employee work-related stress. I discussed the rationale for choosing the study participants, method and design, data collection scales and instruments, data analysis, and previous understanding of the study's threats to validity previously. I used multiple regression analysis to determine if a relationship exists between independent and dependent variables. The study results could help organizational leaders understand the factors that impact employee stress and assist business leaders in improving or developing new practices to increase employee rewards and their development to mitigate or reduce stress. Section 3 presents findings of this quantitative correlation study, applications to business practices and implications for social change, and further research recommendations.

Section 3: Application to the Professional Practice and the Implications to the Social Change

Introduction

I examined the relationship between employee incentive systems, employee development systems, and employee work-related stress in private power generation organizations. The independent variables were employee incentive systems and employee development systems. The dependent variable was employee work-related stress. The study results caused me to reject the null hypothesis and accept the alternative hypothesis after analyzing the data. The results indicated that the whole model could predict work-related stress significantly ($p = 0.001 < 0.05$). I found that the result seemed was not a statistically significant relationship between the independent variable employee incentive and the dependent variable employee work-related stress ($p = 0.279 > 0.05$, $\beta = 0.112$). Another result was a statistically significant relationship between employee development and employee work-related stress ($p = 0.001 < 0.05$, $\beta = 0.340$). I outline in this section the study findings, the applications to professional practice, implications for social change, recommendations for action, and the ideas for further research. I conclude with a reflection of my experience during this undertaking doctoral study journey.

Findings Presentation

I used SPSS version 27 to conduct multiple linear regression analyses. I implemented 2,000 bootstrap samples to compute the likelihood of any possible influence of assumption violations, and 95% confidence intervals based on the bootstrap samples will be reported where appropriate. Different researchers use multiple regression analysis

to help predict one or more relationships on a criterion variable (Green & Salkind, 2013; Plonsky & Oswald, 2017). The following statistical analyses were used to test the hypotheses with multiple linear regression: (a) descriptive statistics, (b) bootstrapping, (c) ANOVA, (d) Durbin-Watson for autocorrelation of the residuals, and (e) Kolmogorov-Smirnov and Shapiro-Wilk. This helped get accurate results in the normality probability distribution of the residuals.

I imported the Excel spreadsheet containing the measurements of employee reward, employee development, and employee work-related stress values into SPSS version 27 for multiple regression analysis. Confirmation of a positive correlation would indicate a relationship between employee reward, employee development, and employees' work-related stress in the energy industry, and an insignificant correlation would mean a reverse relationship. Additionally, the multiple linear regression model can help identify outliers or anomalies among variables (Jeon, 2015), which was appropriate for analyzing data in the study because the data meet the definitional requirement of the model, which is a dependent variable (employees' work-related stress) and multiple independent variables (employee reward and employee development). I tested the assumptions above by checking the normal probability plot (P-P) of the regression standardized residuals, a residual scatterplot of the standardized residuals (Liao et al., 2021). Researchers make extra evaluations by checking normal and detrended normal Q-Q plots of standardized residuals (D'Agostino, 2017). Another assumption of the multiple linear regression model is multicollinearity between or among independent variables (Jeon, 2015). I showed the level of multicollinearity between the independent variables

(employee reward and employee development) using the variance inflation factor (VIF) and tolerance functions. If the VIF value is less than five, multicollinearity will not pose a problem (Akinwande et al., 2015).

The a priori for this study was power R^2 (1-β; error of probability) of 0.90, α = 0.05, and an effect size of 0.15 ($f^2 = 0.15$) with the sample size of $N = 88$. The results indicated that the model could significantly predict work-related stress ($p = 0.001 < 0.05$). I concluded from the results that there were no significant values for employee incentive and significant values for employee development. The whole model showed statistical significance, resulting in rejecting the null hypothesis.

Descriptive Statistics

The data collection process included providing SurveyMonkey links to the required employees through their company HRM or the assigned point of contact employee, working in the targeted private power generation company in the Kingdom of Jordan in four different locations. Out of the 135 employees, which consisted of supervisors and administrative staff from the targeted company, I received 119 surveys for a response rate of 88%. I removed ineligible surveys from the data set, which left a total of 88 useable responses to analyze. I collected first the data of the demographic questionnaire, which is both a descriptive and statistical measure of a population. For this study, I extracted nine demographic data: age, gender, current position, job function, relationship status, education level, job level, current occupation, and employment status. The final dataset comprised 68 males and 20 females. The respondents were 44 administrators and 44 supervisors. The average result of the employees served in their

current role was 15 years. The average age of the employees was 48 years. Seventy-five of the employees were married, eight were unmarried, three were divorced, two were widowed. The survey indicated that 17 employees finished a Ph.D. or MSc education degree, 58 finished BSc, 11 finished college degrees, and two finished high schools. The survey showed that 43 of the employees worked in management occupations, 14 worked in the office, 23 worked on servicing and installation, and eight worked on production jobs. The survey resulted in 15 employees working as executives, 15 as top managers, 19 as middle positions, 28 as intermediates, and two as beginners. Finally, the survey seemed that 66 employees worked full time and 22 time part-time.

Table 2 presents the mean and standard deviation for each independent and dependent variable. The respondents assigned a value toward the higher or lower end of a 7-point Likert-type scale (MED) and 4-point Likert-type scale (measurement of employee reward and work-related stress) instruments. The mean range on the 7-point Likert-type scale is three and a half, and a two on the 4-point Likert-type scale. The mean score for employee incentive was 21.8523, the mean score for employee development was 32.4886, and the mean for employee work-related stress was 40.9659.

Table 2

Descriptive Statistics for Study Variables

Variable	*M*	*SD*	Bootstrapped 95% CI (*M*)
Employee work-related stress	40.9659	2.35108	[40.4773, 41.4202]
Employee incentive	21.8523	1.67839	[21.5000, 22.1705]
Employee development	32.4886	14.41263	[29.5114, 35.6932]

Note. $N = 88$

Assumptions Tests

The assumptions of multiple regression analysis are tested to see if any violations occurred that could cause data bias and untrustworthy information (Williams et al., 2013). Assumptions were evaluated with no significant violations noted. As I stated, the implementation of the bootstrap method by using 2,000 samples enabled mitigating the influence of assumption violations.

Multicollinearity

The variance inflation factor cutoff is three; however, it is subjective. The smaller tolerance values, typically less than one, indicate a more substantial likelihood of multicollinearity; therefore, researchers should focus on the variance inflation factor values (Thompson et al., 2017). The results for multicollinearity were identical for the independent variables employee incentive, and employee development was as follows: tolerance 0.954 and variance inflation factor 1.049. I also evaluated the multicollinearity of the correlation coefficients among the predictor variables; all the bivariate correlations were small (see Table 3). Therefore, the violation of the multicollinearity assumption was not evident.

Table 3

Correlation Coefficients Among Study Predictor Variables

Variable	Stress	Incentive	Development
Stress	1.000	0.185	0.364
Incentive	0.185	1.000	0.215
Development	0.364	0.215	1.000

Note. $N = 88$.

Outliers, Normality, Linearity, and Independence

While testing outliers, normality, linearity, and residuals' independence, no significant violations of these assumptions were indicated. Figure 1 depicts linearity, and Figure 3 shows the scatterplot for normality. The probability p-p plot diagram must include a diagonal from the bottom left to the top right (Pallant, 2010). While considering and evaluating Cook's distance, I concluded not to exclude the outliers because Cook's distance was less than one. Cook's distance (Di) less than one (Di = 0.02) does not require outliers to exclude in normality tests (Menzel et al., 2017).

Figure 1

Normal Probability Plot (P-P) of the Regression Standardized Residuals

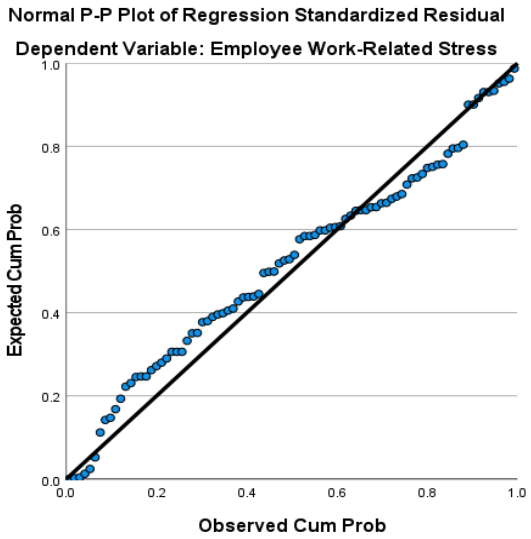
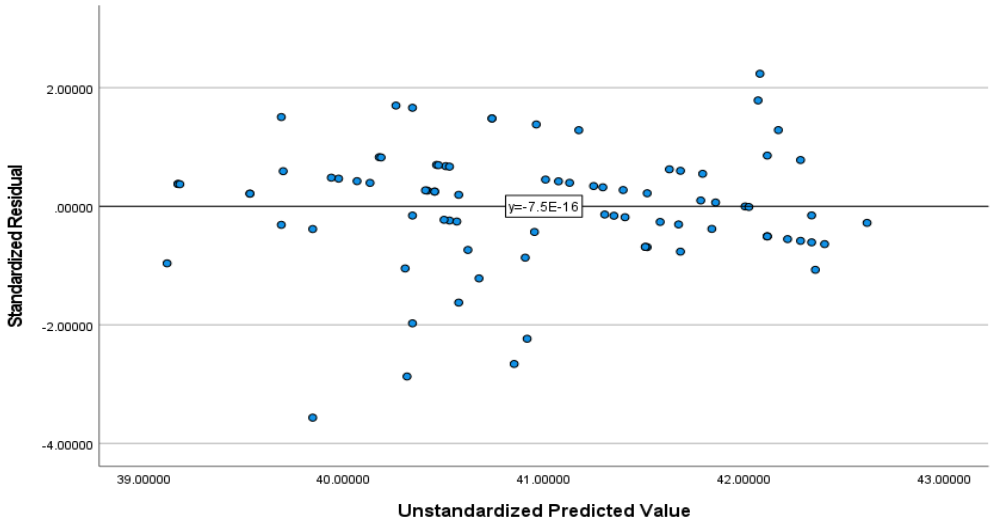


Figure 2

Residual Scatterplot of the Standardized Residuals



In Figure 2, disorganized patterns of the scatterplot of the standardized residuals support that the assumptions had met. I also conducted Kolmogorov-Smirnov and Shapiro-Wilk to get accurate results in the normality distribution of the residuals. The results are depicted in Table 6. The two *p* values of Kolmogorov-Smirnov and Shapiro-Wilk were equal to $p = .048$, $p = .001$, respectively, and the two values were less than .05, which is significant. Thus, the null hypothesis was rejected. The test results are depicted in Figures 3 and 4 and support that the normality assumption had met.

Table 4

Test of Normality

	Kolmogorov-Smirnov statistic	*df*	Sig.	Shapiro-Wilk statistic	*df*	Sig.
Standardized residual	0.95	88	.048	.942	88	.001

Figure 3

Normal Q-Q Plot

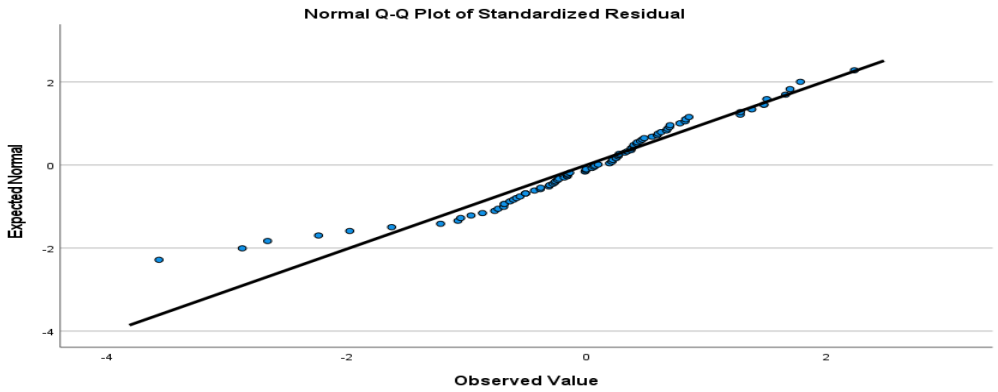
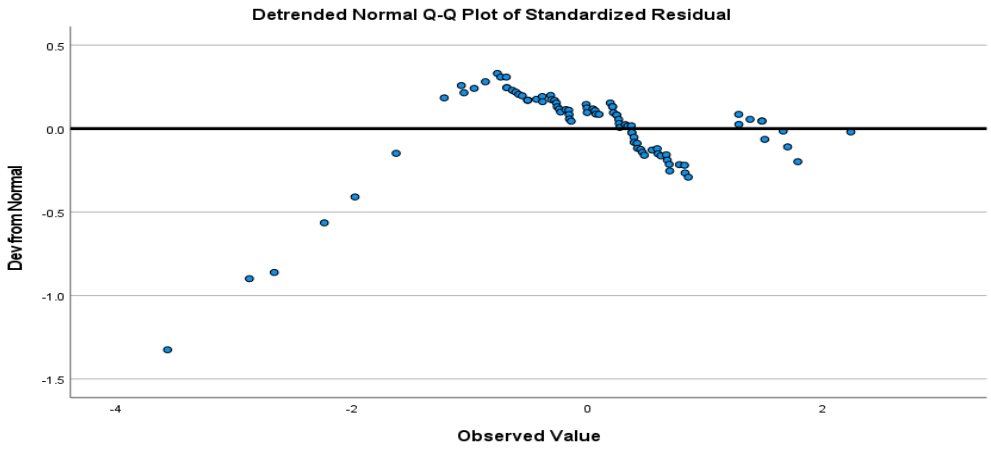


Figure 4

Detrended Q-Q Plot



Homoscedasticity

Researchers defined homoscedasticity as a similar distribution about the mean (Yang & Mathew, 2018). While normality tests acceptable ranges, homoscedasticity tests the balance of data. To confirm homoscedasticity in this study, I added the best fit line to the scatterplot to divide the data into equal parts. I found that the points are scattered and

spread between the drawing axis, which makes me unable to determine a specific shape for them, which means the homoscedasticity's stability.

Multiple Regression Analysis

I implemented standard multiple linear regression with $\alpha = 0.05$ (two-tailed) to examine the effectiveness of employee incentive and development in predicting employee work-related stress. The independent variables were employee incentive and employee development. The dependent variable was work-related stress. The null hypothesis was no statistically significant relationship between incentive, development, and work-related stress. The alternative hypothesis was a statistically significant relationship between incentive, development, and work-related stress. The F-Test is statistically significant at the alpha level of 0.05 ($F = 7.167$; $df = 2, 85$; $p < 0.05$). The decomposition of effects within the regression model can proceed. The determination coefficient (R^2) is 0.144; identifying 14.4% of the variation in the dependent variable of employee work-related stress is due to the independent variables of employee incentive and employee development.

Analysis Summary

Results indicated that the independent variable of incentive was a statistically insignificant predictor and development as a statistically significant predictor of the dependent variable employee work-related stress. The positive unstandardized coefficient of the MED scale ($p < 0.05$, $B = 0.055$) indicates that as employee development increases, employee work-related stress decreases. The model summary is statistically significant and able to predict employee work-related stress, F (2, 85) = 7.167, $p < 0.05$,

$R^2 = 0.144$ (see Table 5). The results of this study indicated a statistically significant relationship between employee incentive, employee development, and employee work-related stress. The R^2 (0.144) value indicated that approximately 14.4% of variations in work-related stress are accounted for by the linear combination of the predictor variables (incentive and development). I concluded development was statistically significant with stress ($t = 3.306$, $p = .001$, $\beta = 0.340$) accounting for a more contribution to the model. Incentive did not explain any significant variation in work-related stress ($t = 1.090$, $p > 0.05$, $\beta = 0.112$).

Table 5

Multiple Linear Regression of Dependent Variable onto the Independent Variables

	Unstandardized coefficients		Standardized coefficients			Collinearity statistics	
1	B	*SE*	*β*	*t*	Sig.	Tolerance	VIF
(Constant)	35.739	3.083		11.592	.000		
Incentive	.157	.144	.112	1.090	.279	.954	1.049
Development	.055	.017	.340	3.306	.001	.954	1.049

I also adopted the Durbin-Watson method for analysis (see Table 6). Since the value of the Pearson (R^2) or the coefficient of determination is 0.144, and the adjusted R^2 is 0.124, the model's explanatory power is 14.4% or 12.4%. This means that 12.4% of the behavior of the dependent variable is determined based on the independent variables. As for the remaining 88.6%, it is determined based on other variables and factors. Since the value of the Durbin-Watson test represents the autocorrelation of the residuals, which is equal to 1.990, which is a value close to 2, it said that the residuals are independent, and there is no autocorrelation between them. The test value came close to 2 and opposite

zero direction, the correlation is positive and weak, and this result has approximately considered. Final predictive equation was: Work-related stress = 35.739 + 0.157 (incentive) + 0.055 (development).

Table 6

Model Summary[b]

Model	R	R^2	Adjusted R^2	*SE* of the Estimate	Durbin-Watson
1	.380[a]	.144	.124	2.20028	1.990

a. Predictors: (Constant), Employee Incentive, Employee Development
b. Dependent Variable: Employee Work-Related Stress

Employee Development

The positive slope for employee development (0.055) as a predictor of work-related stress indicated a 0.055 decrease in employee work-related stress for each additional 1-unit increase in employee development, controlling for employee incentive. In other words, work-related stress tends to decrease as development increases. The squared semi-partial coefficient (sr^2) that estimated how much variance in work-related stress was uniquely predictable from development was .340, indicating that 34% of the variance in work-related stress is uniquely accounted for by development when employee incentives have been controlled.

Findings Related to Existing Literature and the Theoretical Framework

This study's findings support the research conducted by Thang and Fassin (2017), who found a significant correlation between employee development and organizational commitment. It aligned with the research undertaken by Ginevra and Nota (2017), who noted a correlation between employee development and employee work-related stress.

Additionally, the findings from this study confirmed research conducted by Campbell et al. (2017) on employee development; Thang and Fassin (2017) supported (Campbell et al., 2017) study by identifying a need for businesses managers to take an interest in employee development practices to mitigate an employee's work-related stress. This study also aligned with Chen and Fellenz's (2020) study proved that work-related stress conditions like high job demands could lead to exhaustion and energy depletion, negatively affecting employee productivity and companies' profitability. The findings of this study support Siegrist's (1996) theory by indicating an employee's need for employee effort need to justify their reward with approved and good plans.

Applications to Professional Practice

The objective of this study was to determine the potential relationship between employee incentive, employee development, and employee work-related stress in the power generation company to fail to reject or reject the null hypothesis. The findings led me to reject the null hypothesis because a statistically significant relationship exists between employee incentive, employee development, and employee work-related stress. The results could help company managers with the knowledge and data to validate employee incentive systems, employee development systems to reduce work-related stress and limit the financial burden to organizations.

The findings of this study are relevant to improving business management practices by helping power generation managers and leaders understand the relationship between employee incentive systems, employee development systems, and employee work-related stress. Based on the results, leaders and managers could assess factors and

recommend improvements to reduce employee work-related stress and increase business profits, sustainability, and employee growth. Additionally, business leaders need to understand the importance of acquiring and maintaining a pool of agreed and approved incentive systems and development systems and practices for employees to improve employee satisfaction and sustain the organization's profitability.

Implications for Social Change

The implications for positive social change include the potential for power generation company managers and leaders to focus on the stressful conditions of employees through tangible improvements to employee incentive and development programs by providing better opportunities for agreed incentive systems and best career development. Zhou et al. (2018) emphasized the importance of a social support network for resource sustainment and how resources affect employee actions and commitment to the organization.

Organizational leaders should reduce negative supervisory actions that decrease or deplete an employee's productivity. Peltokorpi (2017) examined the effects of hostile supervision on employee working conditions regarding job tasks of best completion. The reduction of work-related stress could decrease the financial burden to the organization by reducing the time and energy spent on recovering their affected employees and supplementing its losing productivity. Implementing employee incentive systems and development systems will undoubtedly increase the likelihood of positive economic contributions and activities.

Recommendations for Action

The finding from this study shows that employee development is a principal factor that influences work-related stress in the organization. Prior studies on the inability to acquire best practices increase employee stress for similar programs (Li et al., 2014; Peltokorpi, 2017). The employee's work-related stress in power production organizations could impact several components, such as threatening service to external customers, decreasing employee morale, losing human capital, and negatively affecting business profits and competitive advantage. The ability to acquire best practices in employee incentive and development systems was not a new concept; however, it may be coming to light as a much-needed understanding of how employees accept methods to maintain productivity.

Addressing available employee management practices may be simpler than before. Business leaders and managers need to understand the availability of crucial techniques for employees to reduce employee stress (Karatepe et al., 2018). A comprehensive recommendation for action could involve: First, implementing employee development activities, second, inspiring an initiative to improve employee career development and growth, and creating best and agreed-upon incentive plans that could align with other management programs.

Power institutional leaders need to pay attention to the results of this study so they can focus on strategies to improve employee incentive plans and development activities. Researchers may find the details of this valuable study for further research. I plan to submit an article for publication in the project management journal. Additionally,

I intend to submit a proposal to present the findings at the conference in the syndicate of engineering professions in the energy sector in the Hashemite Kingdom of Jordan.

Recommendations for Further Research

Recommendations for further research should include examining the relationships between employee incentive systems, employee development systems, and work-related stress in the power companies, not just the targeted studied workers of administrative and supervisory of a private power company. A limiting factor was predesigned questionnaires surveys, limiting the participants' thoughts and opinions. Therefore, case studies, mixed methods, or self-designed surveys may further explain the business management issues at hand.

The targeted sample size was 88 participants based on G*Power 3.1. The targeted population was the administrative and supervisory employees in four branches of a private power company. Therefore, the study findings could only be generalized for this specific region, organizational status, and participants. Employee incentive plans and development activities in other power companies may have different programs from those at this company. The use of an online survey may yield more participants.

There were no limiting factors with online surveys due to their availability, the minimum time it took to deliver and retrieve surveys, and the low effort to acquire the targeted positions of the participants. I saw that using personal interviews in the quantitative study with a semi-structured design may improve the analysis by identifying best practices within the organization or region. The results of a case study or mixed-methods study may provide a more comprehensible understanding of why employee

development and employee incentive were predictive factors of employee work-related stress. Furthermore, qualitative research findings may lead to more organizational-specific solutions to the problem transferrable to other industries.

Reflections

I started this journey to understand complex business problems and why employees react to specific circumstances and could not begin identifying the company's management issues until I took my first step. The study gave me the best knowledge and new insight to open my eyes and be the positive social change needed to understand employee reactions in response to employee incentive systems and employee development activities.

I saw ups and downs in conducting previous research like this study, and there were surprises around each corner and a challenging path yet rewarding. This journey increased my confidence, professionalism, and attitude towards how business managers manage employees. I learned how better to balance my work, family, and school. The doctoral study process was challenging, and I needed to remain motivated and dedicated to completing this study. I became best knowledgeable of the APA format and acquired comfortable writing as a researcher. I became very familiar with the process of researching, analyzing, and writing up findings and outcomes.

It took several hours of self-study to learn statistical analysis methods and test procedures, so I became proficient enough to analyze and report the results. I was not surprised by the study results because I know that the power administrators and supervisory understand how employee incentive and development could impact work-

related stress. The results were seemed aligned with another research on this topic. This study has conducted within a place I did not work for, and it took one month to collect the data. None of the employees dialogued with me about my study; their interest in the topic seemed evident from 119 participation in the study. I learned a great deal from having conversations with HRM, being a better listener, and understanding the company managers' opinions. I have a better understanding of the planning, collecting, and analyzing the data collected from the participants. Also, I conducted a without-names survey, and the SurveyMonkey link took extra precautions to ensure participant confidentiality, and I did not manipulate the data.

Conclusions

This quantitative correlational study examined the relationship between employee incentive, employee development, and work-related stress. I used the SPSS-27 version to test the hypotheses by analyzing the descriptive statistics, testing the assumptions, and performing a multiple linear regression analysis in towpaths to confirm the results, first by 2,000 samples of bootstrapping and second by Durbin-Watson. The findings revealed that the work-related stress study was negatively related to the independent development variable. Examining the results of this study is vital because if supervisors and administrators do not understand the relationship between employee incentive, employee development, and employee work-related stress, they could potentially not know how it affects their company profitability. The overall results of this study show a need for attention in understanding the company's supervisor's and administrator's thoughts and feelings in this area.

The results of this study support Siegrist, (1996) ERI theory by identifying a direct relationship between incentive, development, and stress affecting employees due to their practices applied and working in the organization. Fortunately, the results of this study will provide valuable information to the energy companies' managers and leaders and encourage positive changes within the organization. Business managers and leaders should prioritize employee work-related stress, focus on employee incentive plans and employee development practices, and conduct valuable conversations to improve productivity and profitability sustainability.

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Appendix A: Effort-Reward Imbalance Questionnaires

Effort Items

1. I have constant time pressure due to a heavy workload.
2. I have many interruptions and disturbances in my job.
3. My job has become more demanding over the past few years.

Reward Items (Self-Esteem)

4. I receive the respect I deserve from my superior or a respective relevant person.
5. Considering all my efforts and achievements, I receive the respect and prestige I deserve at work.

Reward Items (Job Promotion)

6. My job promotion prospects are poor.
7. Considering all my efforts and achievements, my job promotion prospects are adequate.
8. Considering all my efforts and achievements, my salary/income is adequate.

Reward Items (Job Security)

9. I have experienced or expect to experience an undesirable change in my work situation.
10. My job security is poor.

Over-commitment Items

11. I get easily overwhelmed by time pressures at work.
12. As soon as I get up in the morning, I start thinking about work problems.
13. I can easily relax and switch off work when I get home. (R)
14. People close to me say I sacrifice too much for my job.
15. Work rarely lets me go; it is still on my mind when I go to bed.

16. If I postpone something that I was supposed to do today, I'll have trouble sleeping at night.

Appendix B: Author Permission

Using Short Version of ERI Questionnaire
[redacted]
Mon 6/21/2021 10:44 AM

Dear Ali,
In response to your request, I hereby give you permission to use the Effort-Reward Imbalance (ERI) questionnaire (original and short version) for all your research. I enclose a document with the two psychometrically validated versions in English, together with additional information on data analysis.
With kind regards

J. Siegrist
Prof. Johannes Siegrist, PhD
Senior Professorship „Work Stress Research “
Heinrich-Heine University Duesseldorf
[redacted]

Ali Al Ajaj
Fri 6/18/2021 8:53 PM
Good morning Dr. Johannes. Siegrist

My name is Ali Al Ajaj, and I am a doctoral student at Walden University writing my dissertation titled “The Relationship between Employee Incentive System, Employee Development System, and Employee Work-related Stress” in the Private Power Generation Company.

My committee chair is Dr. Michael Lavelle I would like to request permission to use an existing survey instrument (a short version of the original questionnaire of the Effort-Reward Imbalance) in my research study.

I want to use and print your survey instrument, the ERI 16-items scale. However, I will only use the research instrument for this study.

Thank you,
Ali Al Ajaj
Walden University Doctoral of Business Administration Student

Appendix C: Employee Development Questionnaires

PsycTESTS®

doi: 10.1037/t03694-000

Organizational Support for Development and Perceived Career Opportunity Scale

Items

My organization has programs and policies that help employees advance in their functional specialization.
My organization provides opportunities for employees to develop their specialized functional skills.
My organization has programs and policies that help employees to reach higher managerial levels.
My organization has career development programs that help employees develop their specialized functional
skills and expertise.
My organization provides opportunities for employees to develop their managerial skills.
My organization has career development programs that help employees develop their managerial skills.
There are career opportunities within [Company] that are attractive to me.
There are job opportunities available within [Company] that are of interest to me.
[Company] offers many job opportunities that match my career goals.

Appendix D: Author Permission

PsycTESTS®

Organizational Support for Development and Perceived Career Opportunity Scale

PsycTESTS Citation:
Kraimer, M. L., Seibert, S. E., Wayne, S. J., Liden, R. C., & Bravo, J. (2011). Organizational Support for Development and Perceived Career Opportunity Scale [Database record]. Retrieved from PsycTESTS. doi: https://dx.doi.org/10.1037/t03694-000

Instrument Type:
Rating Scale

Test Format:
OSD and PCO were each responded to on 7-point scales ranging from 1 = strongly disagree to 7 = strongly agree.

Source:
Kraimer, Maria L., Seibert, Scott E., Wayne, Sandy J., Liden, Robert C., & Bravo, Jesus (2011). Antecedents andoutcomes of organizational support for development: The critical role of career opportunities. Journal of Applied Psychology, Vol 96(3), 485-500. doi: https://dx.doi.org/10.1037/a0021452

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Appendix E: Work-Related Stress Questionnaires

PsycTESTS®
doi: http://dx.doi.org/10.1037/t68177-000

Work Stress Scale

Items

Work-Related demands	**Source/reference**
My job is physically demanding	ERI[a]
I am under constant time pressure due to a heavy workload	ERI[a]
I am worried about making mistakes at work	Ethnography[c]
During the last 6 months, I exposed to abusive language at my workplace	Ethnography[c]
Interpersonal resources	
I receive adequate support in difficult situations	ERI[a]
Considering all my efforts, my salary is adequate	ERI[a]
I receive the recognition I deserve for my work	ERI[a]
I can trust the information that comes from the management	COPSOQ II[d]
The management trusts the employees to do their work well	COPSOQ II[d]
Work-related values	
My job promotion prospects are poor	ERI[a]
My job security is poor	ERI[a]
I have very little freedom to decide how I do my work	JCQ[e]

Note. Responses on all items scored in a two-stage process: First as a dichotomous variable of agreement and in a second step as the extent of dis-/agreement (a little/very much). If combined, bothsteps yielded a 4-point Likert scale (1=disagree very much, 2=disagree a little, 3=agree a little, 4=agree very much).

[an] Effort-reward imbalance questionnaire (Dragano et al., 2011).
[c] Ashraf and Strümpell, 2011.
[d] The Copenhagen psychosocial questionnaire II (Bjorner and Pejtersen, 2010; Thorsen and Bjorner, 2010).
[e] Job content questionnaire (Karasek et al., 1998).

Appendix F: Author Permission

PsycTESTS®

Work Stress Scale

PsycTESTS Citation:
Steinisch, M., Yusuf, R., Li, J., Rahman, O., Ashraf, H. M., Strümpell, C., Fischer, J. E., & Loerbroks, A. (2013). WorkStress Scale [Database record]. Retrieved from PsycTESTS. doi: https://dx.doi.org/10.1037/t68177-000

Instrument Type:
Inventory/Questionnaire

Test Format:
Responses are scored in a two-stage process: First as a dichotomous variable of agreement and in a second step asthe extent of dis-/agreement (a little/very much). If combined, both steps yielded a 4-point Likert scale (1=disagree very much, 2=disagree a little, 3=agree a little, 4=agree very much). The potential factor-specific sum scores ranged from 4 to 8 for work-related demands, 5 to 10 for interpersonal resources, and 3 to 6 for work-related values.

Source:
Steinisch, Maria, Yusuf, Rita, Li, Jian, Rahman, Omar, Ashraf, Hasan M., Strümpell, Christian, Fischer, Joachim E., &Loerbroks, Adrian. (2013). Work stress: Its components and association with self-reported health outcomes in a garment factory in Bangladesh—Findings from a cross-sectional study. Health & Place, Vol 24, 123-130. DOI: https://dx.doi.org/10.1016/j.healthplace.2013.09.004, © 2013 by Elsevier. Reproduced by permission of Elsevier.

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