

**An evil in disguise: A Study of High Performance Work Practices  
and Employee's Negative Personal outcomes**



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**MS HRM 2K17**

A thesis submitted to NUST Business School for the degree of Master of Science in  
Human Resource Management

**2021**

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**THESIS ACCEPTANCE CERTIFICATE**

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## **Declaration**

I hereby state that no portion of the work referred to in this dissertation has been submitted in support of an application for another degree or qualification of this or any other University or other institute of learning.

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## **ABSTRACT**

The purpose of this study was examining the impact of two categories of HPWPs; challenge demand HPWPs (Performance evaluation and continuing education) and job resource HPWPs (Flexible working hours and participation in decision-making) on employee personal consequences (work fatigue, psychological withdrawal, neglect and aggression) through job-stress as a mediator. Data were collected using survey questionnaires distributed to the sample of 500 construction industry respondents in Pakistan encompassing companies of Islamabad, Karachi, and Quetta. Hypotheses were tested by following the recommendations of Preacher and Hays (2012) i.e. PROCESS Macro. The study found that challenge demands HPWPs are positively related to the negative personal consequences whereas, job resource HPWPs are negatively related to negative personal consequences stress is positively related to personal consequences and mediates the relationship between HPWP and employee personal consequences. The research entailed few limitations in the form of being a cross sectional study and the focus being on one industry of Pakistan, while having significant practical implications and contributions to the literature. The present study highlights that considering the specific affects of different categories of HPWPs on personal level outcomes is important while adopting them to increase the performance of organizations.

**Keywords:** High Performance Work Practices, Job Stress, Work Fatigue, Aggression, Psychological Withdrawal, Neglect.

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## List of Abbreviations

<b>High performance work practices, Challenge Demands, job Resources</b>	HPWP, CD, JR
<b>Stress</b>	ST
<b>Aggression</b>	AG
<b>Work Fatigue</b>	WF
<b>Neglect</b>	N
<b>Psychological Withdrawal</b>	PsyW

# CHAPTER 1

## Introduction

### 1.1 Background

Traditionally, human resource was not considered of any strategic importance for an organization, instead taken more as a cost. However, this perspective is no longer based on reality due to changes in the marketplace, organizational settings and the way organizations evaluate and consider their employees (Paauwe & Boon, 2018). As organizations now believe that by managing their employees, they can get a competitive edge that is more unique and non imitable (Jeong & Shin, 2017). The researchers thus, adopt different practices of human resource management that are considered as “high involvement, (Wood, 1999; Shin & Konrad, 2017) high commitment or high performance work practices” (Safavi & Kartepe, 2018; Gkorezis, Georgiou & Theodorou, 2016; Wood & de Menezes, 1998; Huselid, 1995). For this purpose, examining the impact of practices such as, training and development, rigorous performance appraisals, participation in decision making, compensation practices, effective recruitment and selection etc. on the behavior of employees is of significant importance for academic purposes and practitioners alike.

Although as discussed above the general viewpoint about HPWPs is positive but emerging research focuses more on the ‘dark side’ of these high performance work practices (Jensen, Patel & Messersmith, 2013; Truss, Gratton, Hope-Hailey, McGovern & Stiles, 1997). Researchers (Hoque et al., 2018) have argued that the organizations adopting HPWPs simply uses participation and involvement of the employees for the benefit of the organization and thus, are able to control the level and intensity of the work done by the employees. In other words they simply control “how much hard, for how long and under what circumstances the employees will have to work” (Meuer, 2017; Stripe & Zarraga-Oberty, 2017). Thus, making it more stressful for the employees and putting more workload on them. This shows that when an employee is over burdened and under a constant pressure, they are unable to perform well, which in turn leads to exhibition of negative consequences by the employees.

In accordance with the above statement, various researchers (Hoque et al., 2018; Jensen et al. 2013) also suggests that HPWPs can result in negative outcomes specifically related to individual level such as worker's perceived stress and negative personal consequences. (Topcic et al., 2015).

The debate moves on towards the impact of HPWPs on the employees in a way that they start exhibiting negative personal consequences through perceived stress (Aggarwal et al., 2020). Employees under stress are not able to perform up to their potential and usually shows signs of lower levels of job satisfaction and job involvement along with more negative outcomes (Smith, Hughes, Dejoy & Dayal, 2018; Shahzad, Rehman, Shad, Gul, & Khan, 2011; Kazmi, Amjad, & Khan, 2008; Schwarzer & Hallum, 2008; Tennant, 2001). In relation to stress various scholars have focused on HR practices such as HPWPs and considered them as an important organizational factor, which increases the level of stress in an employee. HPWPs exert more pressure and demands on the employee thus, making it very difficult to survive in such a competitive environment. The employee feels over worked and exhausted resulting in higher levels of stress (Ogbonnaya et al., 2017; Bhatti, Shar, Shaikh, and Nazar 2010).

That being stated HPWPs cannot be considered to result only in negative consequences as their major role is to enhance the performance such as, the job resource HPWPs including flexible hours and participation in decision making helps in reducing the stress. As when an employee gets aid and resources from the organization he feels relaxed in the environment and is able to control his work setting and decisions therefore, performing well and not exhibiting negative consequences whether they be physical or psychological in nature. According to literature (Topcic et al., 2015; Muhammad et al., 2011) flexible hours is a facility for an employee to make them able to cope with the stressful aspect of the job and meet the demands of the job while working from home and be the boss of their own time. Thus, making them feel less stressed and more effective employees (Ogbonnaya et al., 2017). In the same way participation in decision-making allows the individual to increase their control of their work helping them in gaining self-determination, autonomy and becoming competent. When the employees feel they have enough autonomy over how they will work they are less stressed and eventually there are less negative consequences (Topcic et al., 2015). Therefore, this study focuses on two sets of practices one positive the "job resources" proposing its positive affect on the employees by

decreasing the stress and decreasing the negative consequences. Whereas on the other hand the other set being “job demands” that puts pressure on the employees thus, increasing their stress and increasing aggression, fatigue, neglect and psychological withdrawal behavior in the employees.

Studies show that Employees under stress are more exhausted, psychologically withdrawn and show neglect and aggression on the job (Rusch and Gavrilets 2017; Trotter et al., 2009). The individuals under stress tend to be more dissatisfied from the job, feel undervalued and are not committed to the job. All these personal consequences have been found to be related to high levels of perceived stress in the job (Hanson et al., 2015; Winstanley and Hales, 2014; Franz et al., 2010; Hogh et al., 2005; Gerberich et al., 2004).

## **1.2. Research Gap**

Majority of the literature on HPWPs focuses on the positive outcomes of the concept (Safavi & Karatepe, 2018; West, Guthrie, Dawson, Borrill, & Carter, 2006). Whereas emerging literature suggests the need to examine the negative impacts of HPWPs (Lv, Xu, 2018) as well as different bundle of HPWPs could be examined (Russell et al., 2018). Researchers who have worked on the negative outcomes of HPWPs have focused on various individual outcomes such as burnout and stress, and the use of different individual level mediators while evaluating the impact of HPWPs is suggested such as using perceived stress as a mediator rather than as the dependent variable (Russell et al., 2018; Topcic, Baum & Kabst, 2015). Thus, there is a gap in the literature as very less work has been done on different bundles of HPWPs, and negative consequences (Russell et al., 2018).

## **1.3. Problem Statement**

The question that comes to mind is whether a concept generally considered as positive can have negative outcomes. Is there a possibility of high performance work practices to result in employee’s negative personal consequences through Job stress? Are some practices more stress related than others? Positive impacts of HPWPs have been studied before but very little focus has been given to test the relationship between the HPWPs and employee’s negative personal

consequences through mediator. This study will be testing this relationship to answer the above questions.

#### **1.4. Research Aim and Objectives**

This study is aimed at examining the negative along with the positive impact of the high performance work practices. The study aims at testing the relationship between HPWPs and personal consequences of the employees through job stress and perceived organizational support while examining the difference in impact of different practices on the Job stress as suggested by literature (Topcic et al., 2015; Crawford et al., 2010) that all practices are not influencing the levels of stress equally. The study will analyze the generalizable as possible. Another aim of the study is to have useful implications for academics and practitioners.

This study entails a few primary objectives to be accomplished such as:

- To test the relationship between HPWPs and employee personal consequences (aggression, work fatigue, psychological withdrawal and neglect).
- To examine the impact of job stress as a mediator between HPWPs and employee personal consequences (aggression, work fatigue, psychological withdrawal and neglect)
- To analyze the impact of HPWPs on employee perceived stress and the impact of employee perceived stress on the negative personal consequences.

#### **1.5 Research Questions**

The study aims to answer questions such as:

- How does HPWPs (challenge demands and job resource) influence employee personal consequences (aggression, work fatigue, psychological withdrawal and neglect)?
- Does job stress act as a mediator between HPWPs and employee personal consequences (aggression, work fatigue, psychological withdrawal and neglect)?

## **1.6 Significance and Scope of the Research**

This study examined the negative along with the positive impact of the well-recognized HRM practices, generally considered as resulting in mostly positive outcomes, (Hoque et al., 2018). In Pakistan generally accepted concepts are rarely applicable in the real terms in organizations thus it was of vital importance to examine such an interesting concept in the context of Pakistan. The study became significant as it was not only from the perspective of the managers or top management rather it looked at the individual level perceptions of the employees about the darker side of these HPWPs and how they were affecting the behaviors and outcomes (Russell, Steffensen, Ellen, Zhang, Bishoff & Ferris, 2018).

In project based companies the perception of employees about a stimuli and their reaction to the stimuli changes with respect to the status of the project, such as the level of stress and anxiety in an employee would be at a higher level in the middle and end of the project as work load and deadlines approaches therefore, their behavioral outcomes are also affected in the same way. For this purpose, an industry based on projects was selected. Construction industry was selected as the targeted industry after covering the essential requirements of the study regarding the industry. These included availability of flexible hours, numerous trainings, availability of performance appraisal system and the employees were allowed their input while taking decisions and carrying out their duties. The construction industry was also selected for the convenience purposes as reference was available and easy access to respondents could be achieved. Thus it was time efficient and cost efficient as well as the references made it easier and visiting the organizations again and again was not required. Also according to literature studying HPWP and Job stress in multi-project organizations makes understanding the role of HPWP in such organizations a significant addition to the existing body of literature and construction companies is one of the main example of project based organizations. Therefore, studies (Chapano, Iwu and Darko, 2018) have been conducted on the effect of HPWP in construction industry however, these studies are not applicable to Pakistan thus, a study on construction companies in Pakistan was required.



## **1.7 Structure of the Dissertation**

Chapter one includes the introduction of the topic and the key concepts that are the main parts of research framework. This chapter also acknowledged the research gap followed by the research problem, research aims and objectives, research questions and the significance and scope of the study. Chapter two can be divided into two parts, first part covering the review of the existing literature on the main variables that have been selected for this research work whereas the second part consists the presentation of the hypotheses and the supporting literature. Chapter three comprises research design and methodology, sampling design and questionnaire features and aspects and analytical procedures performed on the collected data. The fourth chapter of this thesis illustrates results of the analytical procedures that were performed on the collected data for the purpose of testing the identified hypotheses. The conclusion of the thesis presents the discussion, findings, limitations of the study, future recommendations and implications of this research.

## **1.8 Summary of the Chapter**

This chapter comprises of the rationale for selection of the specific topic by highlighting the basic theme and on which this study is grounded. Subsequently, this chapter covers the gaps in the existing research and the problem that this thesis aims to address. After presenting the research aims, objectives and questions this chapter covers the significance of the research. The chapter concludes by underlining the context in which this study was carried out while also briefly highlighting the justification of this selection.

## CHAPTER 2

### Literature Review

#### 2. Introduction

The second chapter of this thesis is the literature review. Starting with a concise review of the main variables of the framework of this study. First of all, the independent variable of the framework namely high performance work practices (job demands and job resources) has been reviewed, followed by the dependent variables namely employee personal consequences including “aggression, work fatigue, neglect and psychological withdrawal” Afterwards, the proposed hypotheses are presented along with the review of supporting literature. The chapter ends with a review of supporting theories and their applicability with respect to the research framework.

#### 2.1 High Performance Work Practices (HPWPs)

High performance work system comprising of high performance work practices is a phenomena that needs to be seen in its historical and social context. There always has been an interest in enhancing the performance of an organization by improving and managing the ways in which the people and systems in an organization are managed. These progressive changes included “scientific management, human relations movement, socio technical work systems, industrial democracy and job enrichment” (Boxall and Purcell, 2011; Karasek and Theorell, 1990; Watson, 1986).

According to a study the concept of high performance work practices first originated in the US which then gained momentum in the talks about the declining competitiveness of the US manufacturing firms. Cappelli and Neumark (2001) states that the term became popular from an influential public report, “*America's choice: High skills or low wages!* (Commission on the Skills of the American Workforce 1990).” One of the key reasons for focusing on this concept was the rise of systems in Japan in 1970s and 1980s called “lean production systems” these included techniques such as, “quality circles, just-in-time inventory, and team-based production”

resulting in improving quality, minimizing cost, more flexibility and efficient delivery (Womack, Jones and Roos, 1990). In regards to the Japanese systems the US work systems were considered inferior and less effective in respect to employee outcomes. (e.g. Snell and Dean, 1992).

While the initial focus was on the way production workers are managed in manufacturing, the topic of HPWSs became part of a larger set of picture, which was affiliated with the human elements in an organization that would result in competitive performance in manufacturing and service industry all over. There are certain works and employment related practices that make up a high performance work system. These are linked with a different variety of definitions and statements. Starting from the early mid-90s, Becker and Gerhart (1996) described the range of concepts related to the relevant human resource practices based on five prominent HPWS studies.

According to these studies there are at the most eleven practices and at least four practices whereas none of the practice was common in the five studies and there is also disagreement about the positive or negative affect of these practices. The positivity or negativity of a certain set of practice also depends upon the national, cultural, socio economical contexts (Rhee et al., 2020; Paauwe and Boselie, 2007). There are various practices that although considered, as a high-performance practice in one area may be a necessary requirement in another therefore, the efficiency and effectiveness of these practices is still in question regarding other variables.

With the above discussion we enter the other aspect of the high performance system which includes the “bundling of the practices” in order to get the expected results. According to various studies (Boxall, 2012) the practices need to be combined into a bundle of complimenting practices instead of implementing them individually. A single practice will not provide the required result where as a bundle will be able to tap the various points and be more coherent. Therefore, it can be gathered from various studies (Odiaka and Chang, 2019) and research that high-performance work practices although a relatively new concept had roots extending to the start of industrial revolution in certain aspects. As even then the management would strive to create a system for transition of their employees from traditional way of working to technical and mechanical way of working and trying out new techniques and practices to ensure effective

outcomes from employees. The debate about the effectiveness and affect of these practices is still undergoing and therefore, this research is conducted to support or negate the notion of these practices being always beneficial for the organization. (Balluerka et al., 2020)

Various studies (Sangwan, 2018) have shown the evolution of HPWP starting from Huselid (1995), focusing on “system management, rewards and incentives, employee involvement” then in 1996 Dalaney and Huselid and Delery and Doty worked on it again with focus on “recruitment and training, internal career opportunities, formal training systems, rewards according to performance, employee safety, employee involvement, employee participation in any profit” respectively. Going further in 1998 Jeffrey Pfeffer highlighted “job security, selective hiring of new staff, job autonomy in decentralization of decision making, rewards based on performance, extensive training, reduction of various existing barriers, intense exchange of financial and performance information throughout the organization”.

Moving further, in 1999 work on high performance practices was conducted by Harel and Tzafrir focusing on “recruitment of staff and training”. Whereas, in the same year Hiltrop worked on “attracting and retaining the most talented employees in the organization”. Furthermore, in 2007 Kepes and Delery analysed “human resource management practices increasing performance of the organization”. In 2009 Boselie put specific human resource practices generating employee skills forward along with these a lot of studies have been conducted on such practices till date.

Over many years, researchers have constantly discovered the positive influence of high involvement, high commitment, high performance work practices on the performance of the organization and other organizational outcomes (Balluerka et al., 2020; Messersmith et al., 2011; Subramony, 2009). These HPWPs are defined as “a group of separate but interconnected human resource (HR) practices designed to enhance employees’ skills and effort” (Takeuchi et al., 2007, p. 1069). These generally include structural, well defined activities related to human resource management such as; “recruitment and selection, performance and other incentive based pay systems, information sharing, rigorous performance appraisals, training and development, career opportunities, employment securities, employee involvement and participation (Russell et al., 2018; Hoque et al., 2018; Messersmith & Guthrie, 2010).

Researchers (Feutal, 2015) have started to categorize these bundles of practices into various forms and categories of dimensions. This categorization is essential for better understanding of their difference in affecting the various organizational level and individual level outcomes in an organization. Such as according to a study (Lepak, Liao, Chung, and Harden 2006) the categorization of these HR practices should be as “skill enhancing, motivation enhancing, or opportunity enhancing”. In the same way in a meta-analysis conducted on 65 studies the author (Subramony, 2009) stated that HR practices in bundles are more affective and have much more of an impact on the organizational outcomes as compared to single HRM practices used. Another study by Jiang, Lepak, Hu, and Baer in 2012 reviewing 116 articles showed that even in the bundles different practices have different impact on the individual and organizational level outcomes.

Such as “the skill-enhancing HR practices have a larger impact on human capital than the other two dimensions. In contrast, HR practices enhancing motivation and opportunity to perform each have a greater impact on employee motivation than do skill-enhancing HR practices”. These practices when combined are thus, called high performance work practices. Several authors have therefore, argued that the HPWPs influence the skills of the employees, their motivation levels and enhance their opportunities to contribute (Kooij & Boon, 2017; Messersmith & Guthrie, 2010). However, as per the aim of this study it is argued in literature (Perdomo-Ortiz et al., 2020; Topcic et al., 2015; Demerouti et al., 2001) that all the practices do not act in the same way or have an equal impact on the level of perceived stress and other negative consequences.

Thus, it becomes a need to study the categorization of HPWPs into challenge demands and job resource as suggested by Topcic et al., (2015). Building the theoretical support on the basis of “job demands-resources framework” it has been advocated that employees perceive stress mainly due to either the challenging demands of the practices defined as ‘stressful demands that have the potential to promote mastery, personal growth, or future gains’ (Crawford et al., 2010, p. 836) such as; “performance evaluation systems and continuing education” or the resources provided through these practices. The resources are “those aspects of the job that are functional in achieving work goals, stimulate personal growth and development, and reduce job demands and their associated physiological and psychological costs” (Crawford et al., 2010, pp.

835–836) such as; “flexible working hours and participation in decision making”.

Many other researchers have worked on high performance work practices, and tried to measure it with items such as “employees are empowered to make decisions, jobs are designed around their individual skills and capabilities, selection is comprehensive (uses interviews, tests, etc.), compensation packages include an extensive benefits package” (Rhee et al., 2020; Takeuchi et al., 2007; Sun et al., 2007; Anthea, 2005; Lepak & Snell, 2002; Way, 2002; Wood, 2002; Becker, 1998). However, these measures on the whole studied other factors such as selection, compensation etc. that were not included in this study and do not need to be studied for this research therefore, only items of performance as a high performance practice were looked at while conducting this research.

In the same way other studies have focused on flexible working hours as per this study but they have also included other polices (Messersmith et al., 2011; Datta, Guthrie & Wright, 2005) and practices in their measuring instrument thus, making their studies not applicable in the context of this particular research. In the same way performance appraisal has also been measured and studied by other researchers however, their studies have used measures that have been mostly employer rated and very complicated in some measures, with items such as “Diplomacy - Being able to say "no" without being too blunt; displaying tact in dealing with others, Directing - Giving instructions and communicating user requirements to programming and support staff, Patience - Continually refining user requirements by requesting feedback; tolerating lack of computer literacy and specificity, Leadership - getting work done while keeping the team satisfied; effectively giving rewards and punishment” (Chilton et al., 2005; Chilton et al., 2004).

Similarly many other studies have used employer rated measures whereas this study involves employee rated response to be captured and analyzed. Therefore, all the studies (DeRue et a., 2007; Audrey; 1998; Scotter, James & Motowidlo, 1996; Igarria, Magid & Baroudi, 1995; Liden, Wayne & Stilwell, 1993; Greenhaus et al., 1990; Touliatos et al., 1984) including employer rated measures is another aspect of the literature. Moreover, there are other studies involving measures including items of performance appraisal such as discipline and stretch etc. however those measures were not valid for this research (Gibson, Cristina & Birkinshaw, 2004).

Another study conducted by Mayer, Roger in 1999, although employee rated focuses on the accuracy of the system implemented rather than its effectiveness having items such as “the evaluation of what skills I have is pretty accurate, whether or not my supervisor likes me is important to my performance review’ etc. (Cardy, 1994). Therefore, it is safe to state that HPWP although a widely researched phenomenon still contains concepts and questions that needs answering and requires more research and studies.

## **2.2. Work Fatigue**

A large and growing multi-disciplinary body of literature (Gander et al., 2019; Kleiner et al., 2017) has shown interest in the causes and subsequent outcomes of work fatigue. This phenomenon has come under light and the interest has increased in the recent times as work fatigue is being considered as an important personal consequence and work-related outcome linking working environment to “employee health, work attitudes, safety, and performance”. The question then arises as to what is work fatigue and to answer this question many studies have been conducted from which a study was formulated focusing on the concepts and empirical research of fatigue. The main concern being looked at is the relation of fatigue to work, whether fatigue is work-related or a more general concept. After analyzing various research and studies work fatigue is considered to have three features with first being the involvement of “extreme tiredness (lack of energy) and reduced functional capacity” (Frone and Tidwell, 2015). Here reduced functional capacity refers to the diminished capacity and motivation of responding to any stimuli therefore, unable to engage in many activities and unable to perform efficiently (Austin et al., 2020).

Many researchers define fatigue for example, Pillsbury (1922, p. 541) stated “By fatigue we mean a reduction in the capacity for doing work which comes as a result of work.” In the same way fatigue is defined by Ricci, Chee, Lorandeanu, and Berger (2007, p. 1) as “a feeling of weariness, tiredness, or lack of energy.” later on Bokesem and Tops (2008, p. 126) states that “mental fatigue is an experience which occurs “after or during prolonged periods of cognitive activity” involving “tiredness or even exhaustion, an aversion to continue with the present activity, and a decrease in the level of commitment to the task at hand.” Stasi, Abriani, Beccaglia, Terzoli, and Amadori (2003, p. 1787) stated that “fatigue is the state of weariness

after a period of exertion, mental or physical, characterized by a decreased capacity for work and reduced efficiency to respond to stimuli.” Another study by Maslach and Jackson (1981, p. 101) described fatigue as “an emotional exhaustion involving “feelings of being emotionally overextended and exhausted by one's work.”

By analyzing the above definitions and other studies there seems to be variation in the definitions in regards to the focus being on “extreme tiredness” and “reduced capacity” however, looking at the definitions collectively it is evident that work fatigue is a combination of both concepts. In order to differentiate the concept of work fatigue from that of general tiredness (as a result of engagement in physical, mental and emotional activities) the inclusion of both aspects is required (Frone and Tidwell, 2015)

Then comes the second feature of the work fatigue concept, which states that experiencing “extreme tiredness and reduced functional capacity” is equally applicable to all three stimuli of energetic resources. The first resource known as physical involves muscular movement, second resource mental, involves cognitive processing finally the third resource called emotional, involves expressing and regulating emotions. As per the above definitions and research studies that dates back almost 90 years (Pillsbury, 1922) a frequent distinction can be seen based on the three resources such that physical fatigue results from the reduction in muscular energy whereas mental fatigue results from the diminished cognitive energy. In the same way with growing jobs and interest in service industry there has been an increase in teamwork (Austin et al., 2020) requiring interpersonal interactions and increased emotional contact of employees within and outside of organization. Therefore, resulting in focusing more on emotional fatigue that results from the diminishing of emotional energy along with physical and mental energies (e.g., Australian Safety and Shirom & Melamed, 2006; Compensation Council, 2006; Maslach & Jackson, 1981).

This leads us to the third and important feature of work fatigue, this feature ties work fatigue to the workday. According to this feature experiencing work fatigue occurs during workday (Melamed et al., 2006; Kristensen, Borritz, Villadsen, & Christensen, 2005a; Demerouti et al., 2003; Maslach et al., 1996). Considering all the factors related to the concept of work fatigue being the outcome of job related demands and resources there are also studies



(Bower et al., 2018) that suggests work fatigue being the outcome of personal non work factors as well as external demanding conditions as the reason of depletion of resources of an employee while being on the work. However, this study focuses on the work related factors rather than the non-work related factors. Therefore, according to the above definitions and discussion work fatigue is defined as “extreme tiredness and reduced functional capacity that is experienced during and at the end of the workday” (Frone and Tidwell, 2015).

In addition to this work Frone and Tidwell in 2015 divided the fatigue definition into three parts as per the three resources stating “Physical work fatigue represents extreme physical tiredness and reduced capacity to engage in physical activity that is experienced during and at the end of the workday. Mental work fatigue represents extreme mental tiredness and reduced capacity to engage in cognitive activity that is experienced during and at the end of the workday. Emotional work fatigue represents extreme emotional tiredness and reduced capacity to engage in emotional activity that is experienced during and at the end of the workday.”

### **2.3. Aggression**

All of us usually are acquainted with the word “aggression.” It comes from the Latin verb “aggrēdi” meaning “to approach” or “to go to,” but, now it is used in a wide variety of languages and different disciplines. Aggression according to researchers (Wolf et al., 2017; Krahé, 2013) can be of two types, positive and negative therefore, there are a few questions, which needs to be answered in order to confirm whether aggression is completely harmful or can result in something productive as well. These questions include “Is aggression always a bad thing or can it also be good? Should people refrain from it altogether or is there something like a “healthy” level of aggression that enables people to stand up for themselves in different domains of life? How can we explain why people engage in aggressive behavior and why some individuals seem to be more aggressive than others? Why is it that a person may be calm and composed in one situation but fly off the handle in another?” etc. these and many other such questions ensure the depth of the impact of aggression and also the cause of aggression (Krahé, 2013; Castillo-Eito et al., 2020).

However, this study will be focusing on the aggression, which according to literature is an explicitly harmful behavior with the sole purpose of putting others in harms way or creating an unacceptable unpleasant environment for others (Caillier, 2020; Almeida et al., 2015). This behavior may either be the result of a retaliatory behavior or it can also be without any antecedent leading to such behavior. Generally, aggression in individuals is caused by frustration, stress, unmet expectations resulting in ‘direct’ and ‘indirect’ aggression (Krahe, 2013). The direct aggression refers to the physical and verbal harm to an individual whereas indirect aggression is related to harming the environment in which the individual operates thus, indirectly hurting the other person (Geoffrion et al., 2020; Akert et al., 2010). Generally, “harm” implies a form of behavior, which is unwanted or unacceptable by the person on whom the behavior is inflicted upon. Such as resulting in physical injury, not caring about the feelings of others, destroying the reputation of others by gossiping about others or using any other way of social disgrace and destruction of property of others is also considered as harming others. Individuals also become aggressive towards their own selves by taking their lives and harming themselves (Almeida et al., 2015; Mento et al., 2020).

There are many studies of aggression including many types of aggression such as displaced aggression, that is related to more personal and interpersonal situations triggering the aggression with similar measures used in these studies having items such as “whenever I experience anger, I keep thinking about it for a while, after an argument is over, I keep fighting with this person in my imagination” etc. (Denson et al., 2006; Sukhodolsky, Golub & Cromwell, 2001). In the same way, another study has given another measure that divides aggression into four parts, Physical aggression, verbal aggression, anger and hostility (Buss & Parry, 1992). This scale although very comprehensive may not be suitable for every study just as it makes the questionnaire too lengthy and due to the busy time schedule of every person it has become quite difficult now a days to get their attention for more than few minutes therefore, the longer the questionnaire the less valid the responses.

Similarly, other studies have measured aggression related specifically to workplace (Douglas, Scott & Martinko, 2001; Robinson & O’Leary-Kelly, 1998) however, they have used measures that contains items that are more towards verbal aggression and does not cater much for physical aggression such as “saying unkind things to purposely harm other coworkers while

at work, saying nasty things about other coworkers while at work, saying nasty things about the organization while at work” etc. Thus, making the scale inept for studying aggression as a whole including physical and verbal both types. Aggression has always been a concept quite frequently looked at therefore, adding aggression in the framework where the negative outcomes of stress are being studied is of vital importance. Therefore, this study has included aggression as a personal consequence to stress.

## **2.4 Psychological Withdrawal**

Psychological withdrawal refers to the dissatisfied and demotivated state of an individual (Aggarwal et al., 2019; Beehr, 2014). When an employee is detached from the organizational activities psychologically although behaviorally he may be present in the organization but he may not be giving any attention to the work. His behavior might not show any signs of withdrawal but he disengages himself from the organization and its people psychologically (Carpenter & Berry, 2017). It generally attaches negative feeling with the organization or the job. Thus, an employee who is psychologically withdrawn from his job will show signs of fatigue and job dissatisfaction and would want to be away from the job rather than actually doing it. This in turn results in a variety of counterproductive workplace behavior as well such as employees letting their work half done, not giving attention to what they are doing, coming late to meetings and other events purposely etc. (Schilpzand et al., 2016).

Psychologically withdrawn employees have low morale they are not confident in their own work setting, they feel more stressed out and always perceive their work as to have a negative impact and take too much pressure from their work (Aggarwal, Chand, Jhamb & Mittal, 2020). Employees exhibiting psychological withdrawal behavior have many traits as they are unable to form a connection with their organization or their jobs hence they are willfully late, they have more intention to leave and are more absent from their jobs. People tend to shirk from their work when they are psychologically withdrawn from their particular work and environment. According to researchers when an individual is allowed to have a say in the work that he is responsible of and are respected and supported by the management they feel secure and psychologically safe in the environment (Qian, Zhang & Jiang, 2020).

Therefore, psychological withdrawal depicts the behavior of an employee being detached from his work and surroundings. The individuals although physically present in the job, are still unable to work properly or give the desired results to the organization. They feel overburdened or feel like they are not given enough authority or sense of empowerment in the job therefore, they remove themselves from the job psychologically (Aggarwal et al., 2020)

Psychological withdrawal has been studied by many other researchers and measured accordingly as well such as Bradford, (2006) and Kanfer (1994) included one item “I let my mind wander while I was taking the test” while measuring psychological withdrawal making the scale very particular and not general at all. In the same way many researchers have studied psychological withdrawal using measures in which the respondent has to record the number of times, such said behavior occurred. The scale contains items such as “record the number of times that you have done these behaviors in the past year: Being late for work and taking frequent or long coffee or lunch breaks” (Christopher, 2000; Singelis, 1995; Hanisch & Hulin, 1991; Hanisch, 1990). Therefore, it can be stated that when employees are psychologically withdrawn they tend to be less reactive to orders and situations also, they become non attentive and are unable to perform their duties accordingly. Employees start taking breaks that are not scheduled or end their scheduled breaks quite late, they would be listening to their supervisors but not really hearing anything as their minds are far away and they are not interested.

As psychological withdrawal has also been studied by various researchers (Aggarwal et al., 2019) and through various measures however, there has been no significant literature or studies with high performance work practice and stress therefore, this study is highly significant in this manner. As an employee feels overburdened and is being assessed again and again, they become agitated and tend to withdraw from that work psychologically. They may be present physically in the organization but their work is not up to the mark, as psychologically they don't want to work, they would rather go out or have rest, resulting in incomplete and below standard work.

## 2.5 Neglect

Job neglect occurs when the employee tends to shirk from the work and their responsibilities (Rai and Aggarwal, 2019; Akhtar et al., 2016) thus, refusing to put in enough effort and involving themselves in non-work activities (Karimi et al., 2016). It is generally classified as avoiding the work in many forms such as decreasing effort, decreased valuable input, increase in absenteeism or being late, working on other personal projects, or decreasing speed of task (Ibid, 2016). Job neglect is usually measured through questions asked from employees such as; “the degree to which they avoid work by speaking with coworkers” and “offering less effort than they know they can, intentionally steering clear of their supervisors, taking more frequent and longer breaks than is allowed, making deliberate mistakes, and arriving at work late” (Leck & Saunders, 1992; Rusbult, Farrell, Rogers, & Mainous, 1988).

Farrell in 1983 described neglect as a careless and disregarding behavior between employees. Neglect is not concerned with the recovery of hope or expectations; instead there is an underlying understanding that expectations are not going to be met. Neglect is exhibited in the form of sometimes moderately passive and sometimes extremely passive response such as an employee exhibiting reduced interest and shows no effort, is almost always late or absent, does multiple errors and utilizes official organizational time for personal use (Vangel, 2011). Neglect can also be considered as a form of silence i.e. withholding an idea or an information that may be useful for the organization. This is also termed as acquiescent silence that indicates employee feeling unable to make a difference therefore, withholding information and ideas on the basis that they won't make any difference anyway. Therefore, it can be stated that when an employee feels like his decision and his voice will not matter in the organization, he starts neglecting his own ideas as well as starts neglecting his work by being mentally absent in what he does and not completing his assigned work on time (Ndlovu, Yasseen & Brahmhatt, 2020).

Other researchers in various other disciplines (Sabino et al., 2019) have studied neglect as well. Researchers have adapted the measures used to measure neglect according to their own needs and requirements of their studies. Such as in a study by Hibbard et al., (2001) neglect was measured for their supplier and product usage using items such as “the act strongly reduced our enthusiasm to push [the supplier's] line and we became less vigorous in the promotion of [the

supplier's] products” etc. in the same way other studies customized the scale as per their requirements (Rusbult et al., 1988; Ping, 1993). Whereas the study by Hagedoorn et al., (1999) has used measures that are more efficient and has been validated through various factor analysis and changed from 11 item scale to 5 item scale in order to increase its reliability and making a measure comprehensive enough to study the neglect variable with high reliability and validity.

Hence, making the above measure the most suitable to be used for analyzing the concept of neglect. As not much work has been done on neglect in organizational context rather neglect has been studied in terms of medical research regarding neglect of doctors and nurses etc. therefore, there is an enormous need that needs to be filled regarding the study of neglect in managerial sense and form. Hence from the literature it can be stated that the situation in which the employee works and the work setting of the employee plays a major role in his way of reacting to the variables in his environment. Therefore, when an employee is provided with resources that makes him feel secured and ensures his importance to the organization he will be more focused in the job and would not exhibit behaviors of neglect therefore, performing well on the job. Whereas, if an employee is over burdened with work and he is not given a chance or a say in the decisions of the organization he would eventually start neglecting his work and shirk his duties.

## **2.6 Theoretical Framework and Hypotheses Development**

The theoretical model hypothesized in this study and the assumptions are based on Job demands-resources framework (Walczak, 2015). The study takes support from the job demands-resources model (Demerouti et al., 2001) in order to explain the difference in different HPWPs and their relationship with stress. Thus, this framework divides HPWPs into two broad categories “challenge demands (i.e., performance evaluation systems, continuing education) and job resources (i.e., flexible working hours, participation in decision- making)” (Crawford et al., 2010). This framework explains why challenge demands might have more effect on employee stress as compared to job resources. The Job Demands-Resources (JD-R) model of stress is helpful in examining the different features of the job that results in differential impact on stress and describing the reasons for varied perceived stress. The model was originally given by Demerouti, Bakker, et al., (Bakker & Demerouti, 2007; Demerouti et al., 2001), now considered

as one of the best theories to understand and explain the levels of stress in the job.

There are other models of stress that could have been applied in this study but, the main focus of those models “Karasek, in 1979” and “Siegrist in 1986” was primarily the negative aspects of a relationship involving stress i.e. focused only on the negative outcomes of characteristics of the job in the workplace. Where as this JD-R model not only focuses on the negative aspects of job such as stress and demanding work, work load etc. but also on the positive aspects such as the resources provided, the facilities given to the individual. This model therefore, becomes more effective in developing a better environment and work plan for the employees by understanding what can be beneficial as well as the detrimental factors of the job. The other models of identifying the reasons for stress are too simple in their forms where as this model takes it a step forward and brings in all the disciplines in the workforce or even in daily life it explains the sources of stress much more comprehensively (Kwon and Kim, 2020; Bakker, van Veldhoven, & Xanthopoulou, 2010).

According to JD-R model stress is the result of interrelated phenomena such as the challenges and constraints presented in the organization or the job itself to the employee and the degree of control or freedom given to the employee to face and counter those challenges in a way of coping with the challenges and thus either reducing or increasing the stress by coping with it or being unable to cope with stress relatively (Giauque et al., 2012). As per literature this model constitutes a vast range of characteristics related to work that can affect the individual level outcomes. The model categorizes the characteristics into two broad categories “job demands” and “job resources”. “Job demands are defined as those aspects of the work context that tax employees’ personal capacities and are, therefore, associated with certain psychological and/or physiological costs” (Van den Broeck et al., 2008, p. 278). For example, extreme work load, rigorous trainings, constraints posed by organizational hierarchy or other sources in an organization, emotional conflicts or demands, work-home balance demands, etc. these are proven by researchers to be positively related to stress and other negative individual outcomes. (Radik et al., 2020; Bakker et al., 2008; Van den Broeck et al., 2008; Noblet et al., 2006).

Whereas the other aspect of the model “Job Resources” is defined as “those physical, psychological, social, or organizational aspects of the work context that (a) can reduce the health

impairing impact of job demands, (b) are functional in achieving work goals, and (c) stimulate personal growth, development, and learning” (Van den Broeck et al., 2008, p. 278). For example, freedom of work, support from the supervisor, support from colleagues and friends, support of family, being financial as well as emotional, flexible time opportunities, empowerment of the employee, healthy and friendly environment etc. (Van den Broeck et al., 2008; Bakker & Demerouti, 2007).

Thus, in this study it is proposed that organizations use these HPWPs to enhance the performance but in reality, a set of these practices puts more responsibilities on the shoulders of the employees and more expectations and generate a very competitive environment through appraisal processes and rigorous trainings thus, exhibiting negative attitude and behavior (Knights & Willmott, 2016).

## **2.7 HPWPs and employee personal consequences**

Considering the HPWPs, the literature (Murphy et al., 2017) suggests that higher levels of these practices are linked to more exhaustion and feeling of over load. Employees usually consider the practices to be unjustified and not rewarding enough rather they are more time consuming and an increase in responsibility thus, these practices lead to negative personal consequences such as, work fatigue, psychological withdrawal, aggression and neglect (Ogbonnaya et al., 2017; Demeroutiet al., 2010) although, same cannot be said for all practices. Personal consequences of an employee are generally the result of job characteristics i.e. either external causes related to job or internal. The focus of this study is on the job related factors, specifically HR practices as a cause of negative outcome. As literature (Rusch and Gavrillets 2017; Staaden et al., 2011) and the supporting framework suggests that one category of the practices being the challenge demands prove to be more negative in impacting the personal consequences of employee (Topcic et al., 2015) whereas, the other set being the job resources acting in the opposite way.

The JD-R model also supports the above notion as well such that it states that job or workplace characteristics generate a different set of psychological processes. Though, in this study the focus is not only on psychological outcomes rather on physical outcomes as well such



as, the less extreme for being “neglect” and also a more extreme form of physical outcome such as “aggression” is analyzed as well. According to literature (Kwon and Kim, 2020; Giaouque et al., 2012) there are two processes related with the characteristics of job, in the first process, the challenging characteristics of the workplace that demands more work, more concentration, more time on the part of the individual employee results in over burden, over taxed employee, and eventually towards extreme tiredness, burnout, psychological harm and physical harm as well. Whereas, in the second process as explained by the JD-R model, the absence or presence of resources provided to the employee in the form of support, empowerment, flexible timings, daycare facility, and many other such benefits leads to either increased exhaustion and other negative outcomes along with the high level of demands on the employee or reduced fatigue, burnout, stress, etc. relatively thus, helping the individual to cope with the demanding side of the job by reducing stress as well as other outcomes. (Giaouque et al., 2012; Bakker et al., 2008, p. 311).

Research therefore, suggests the importance of fatigue and tiredness, as it considers that work exhaustion is now a most important and dominant component in models of job burnout (e.g., Shirom, 2011; Demerouti, Bakker, Vardkakou, & Kantas, 2003; Maslach, Jackson, & Leiter, 1996). In the same way Work fatigue is also seen playing a major role in the JD-R job demands-resources model (Radik et al., 2020; JD-R; e.g., Bakker & Demerouti, 2007;). Researchers have also shown evidence of relevance of work fatigue with conservation of resources (COR) theory (Hobfoll, 1989; Shirom, 2011). In this study as the Job demands constitutes of continuous education and performance appraisal system, which will require more time, effort and more pressure on retaining the trainings in the same way a very thorough and rigorous performance evaluation, which evaluates the employee on every step of the work every day will tax the individual. These demanding characteristics of the job will make the individual more nervous and they will feel being observed all the time leading to stressing out, which will result in fatigue, neglect of other duties that may not be observed thoroughly, psychologically withdrawing from the work and becoming aggressive when things get out of hand and the individual is unable to cope.

Hence, it is proposed regarding the challenge demands (Performance evaluation and continuing education) type of HPWPs that are used:

Hypothesis 1: *High performance work practices (challenge demands) are positively related to employee personal consequences (work fatigue, psychological withdrawal, neglect and aggression).*

As per the aim of this study it becomes necessary to differentiate between the affects of different practices on the personal consequences of an employee. The literature suggests that the other category of HPWPs generally considered as job resources (Flexible working hours and participation in decision-making) have a much positive affect on the personal consequences of an employee (Crawford et al., 2010). When an employee is given flexibility in working hours and more autonomy in decision making it helps him to arrange his work accordingly and be responsible for his own work thus, the exhaustion, psychological withdrawal, neglect and aggression are reduced as the employee is given autonomy and feels sense of empowerment (Muindi, 2011; Ndlovu et al., 2020). Looking at the literature it can be stated that the theoretical models discussed above when looked at collectively states that when an individual is exposed to job demands/stressors their energetic resources are depleted and they are more exhausted and show tiredness, which results in higher level of work fatigue. Whereas, the same individuals when and if exposed to resources in jobs their energies are protected and also renewed thus, decreasing their levels of exhaustion, tiredness and subsequently they are less fatigued (Frone and Tidwell, 2015).

Hence, it is hypothesized:

Hypothesis 2: *High performance work practices (Job resources) are negatively related to employee personal consequences (work fatigue, psychological withdrawal, neglect and aggression).*

## **2.8 The Mediating Role of Job Stress**

Regardless of the word and concept of stress being used frequently there is still a debate about the definition of stress. Many researchers have studied and described stress in various ways and forms. Researchers have tried and distinguished three areas of agreement on which many have agreed as being the correct path of defining stress. In 1992 Kahn and Byosiere identified those three aspects first, job stress is caused by a stimuli (stressor) influencing it

externally, secondly there is involvement of personal evaluation of the stressor this aspect also considered as an appraisal of the stressor. Where as, third aspect is the strain that job stress results in such that it has a negative affect mentally, emotionally, physically and also have a negative impact on behavioral actions and functions of an individual. Therefore, it can be stated “job stress is a dynamic process in which subjective cognitive appraisals of job-related stressors produce negative health and/or behavioral strain outcomes” (Lee and Jang, 2020; Kahn and Byosiere, 1992).

According to the above definition four perspectives of job stress can be described as supported by other researchers (Cooper, Dewe and O’Driscoll, 2001) as well. First perspective focusing on the medicine, where job stress has a certain response in the form of three states; cognitive; the individual is dissatisfied or mentally unhappy, physiological; the individual feels down or become ill and behavioral; where the individual is absent from the work or shows negative behavioral response. Second perspective is the “stimulus based” view applying an engineering analogy to job stress. This perspective is concerned with identification of stressors such as laying-off employees and increasing their workload that weakens the internal capacity of resistance in a body instead of outcomes it focuses on the internal resistance due to stress.

Third perspective is a derivative of organizational psychology; this view focuses on the interaction between two stressors that correlate with each other and mutually puts the individual under stress. Such as, there is high stress when an employee having very high work load is given very less or no control over their duties thus, resulting in stress as work load and no control interacts with each other. Fourth perspective is termed, as the “transactional view” this view focuses on the person-environment transaction of an individual, according to this perspective stress is a response based on the subjective judgment of the stimuli in work. Generally, this view covers the above definition i.e., “external stressor, cognitive appraisal and mental/behavioral outcome” (Aruldoss et al., 2020).

There has been an immense increase in the work done on job stress in different disciplines. According to Väänänen, Murray and Kuokkanen, (2014) the literature on job stress especially focusing on publications based on research domains a general trend of increase was seen as, “In the domain of health sciences, the occupational, community and public health

journals” stress was given much importance. During the “1970s and the 2000s” the share of work on stress relatively increased from, “0.3% to 1.8% in the American Journal of Epidemiology, from 0.4% to 5.6% in the Journal of Epidemiology and Community Health, from 0.4% to 18.2% in Occupational and Environmental Medicine, and from 0.4% to 3.2% in the Scandinavian Journal of Work, Environment & Health” (Väänänen et al., 2014,p. 23).

Moving further Stress has been considered as “legitimate scientific phenomena” by researchers (Cannon, 1932, 1939; Selye, 1946). Cannon gave the name “fight or flight” to describe the response of people while encountering a potential threat or such an event. This concept was in consistency with Darwin’s theory as an individual is able to respond in response to an external threat by either fighting or fleeing from the stimuli, an evolutionary response leading to the advancement of human survival. Extending the work of Darwin, Cannon Selye (1946) explored the impact of stress in longer term by developing a three-stage theory explaining the response to harmful stimuli.

The stage one known as “alarm” is concerned with the body aggressively reacting to the foreign stimuli, in the next stage the body’s own internal system starts fighting the dangerous/harmful stimuli and if the body is successful it usually reverts back to its normal calm state and functioning, this stage is known as “resistance”. However if the body is unsuccessful in fighting against the foreign threat stage three “exhaustion” occurs where the internal system’s resources start depleting and this results in negative consequences and outcomes. These can be mental, emotional or physical outcomes (Cooper et al, 2001; Crum et al., 2020). In the same way various studies conducted on stress states that employees under stress are not able to perform up to their potential and usually exhibit lower levels of job satisfaction and job involvement along with more negative outcomes (Smith, Hughes, Dejoy & Dayal, 2018; Shahzad, Rehman, Shad, Gul, & Khan, 2011; Kazmi, Amjad, & Khan, 2008; Tennant, 2001; Repetti, 1993; Leino, 1989). In relation to stress various scholars have focused on HR practices such as HPWPs and considered them as an important organizational factor, which increases the level of stress in an employee.

As many researchers have stated and proven in their studies that self-reported job stress is associated with challenging roles or demands in the job. They have found that challenging

demands in a job is generally positively related to stress and the stress is then positively related to high turnover, absenteeism, counterproductive work behavior etc. (Cavanaugh, Boswell, Roehling & Boudreau, 2000). Therefore, as HPWPs exert more pressure and demands on the employee it becomes very difficult to survive in such a competitive environment. The employee feels over worked and exhausted resulting in higher levels of stress (Ogbonnaya, Daniels & Connolly, 2017; Bhatti, Shar, Shaikh, and Nazar 2010) therefore, this study proposes;

*Hypothesis 3: Challenge demand HPWPs (Performance evaluation and continuing education) are positively related to job stress.*

As the majority of studies in the previous years regarding stress and its antecedents and consequences have been built on the theoretical foundation of the JD-R model, it supports the hypothesis stated above by explaining the sources of stress as demanding job and by explaining the reduced level of stress. Therefore, the job resource HPWPs including flexible hours and participation in decision making helps in reducing the stress.

According to literature (Topcic et al., 2015; Muhammad et al., 2011) flexible hours is a facility for an employee to make them able to cope with the stressful aspect of the job and meet the demands of the job while working from home and be the boss of their own time. Thus, making them feel less stressed and more affective employees (Ogbonnaya et al., 2017). In the same way participation in decision-making allows the individual to increase their control of their work helping them in gaining self-determination, autonomy and becoming competent. When the employees feel they have enough autonomy over how they will work they are less stressed and eventually there are less negative consequences (Topcic et al., 2015) thus, it is hypothesized:

*Hypothesis 4: Job resource HPWPs (flexible working hours and participation in decision-making) are negatively related to job stress.*

Many researchers have considered stress with “tedium, burnout (exhaustion), (job) dissatisfaction, (reactive or professional) depression, alienation, low morale, anxiety, (job) strain, tension, feeling "worn out," experiencing "flame-out," tension, conflict, pressure, "nerves," boredom, (chronic or emotional) fatigue, poor mental health, crisis, helplessness, vital exhaustion, and hopelessness” (Schaufeli, Maslach & Marek, 2017). In the same way, exhaustion

is considered as one of the result of prolonged job stress due to highly demanding jobs at the workplace that exceeds the level of resources of an individual. Stress is taken as a long-term perspective indicating that exhaustion, psychological withdrawal and neglect occur when the demands are high and the resources are depleted.

The work of Selye (1967) who is considered as the “founding father” of phenomena known as stress, states that whenever a person is facing or exposed to a stress stimulus such as demands in the workplace or work overload etc. the process of coping starts. This process consists of three phases “alarm”, “resistance” and “exhaustion”. According to various authors in the early versions of study on stress (Etzion, 1987; Brill, 1984; Selye, 1967) and also the more recent ones also stresses that high job demands and depleted resources results in the depletion of not only physical but also psychological resources causing harm to the individual as he starts to withdraw psychologically as well as physically. Thus, stress has been studied with many individual and organizational level outcomes.

As previous research shows that stress is directly linked to exhaustion in the job, (Flu, Flood, Bosak & Rousseau, 2017). Employees under stress are more exhausted, psychologically withdrawn and show neglect and aggression on the job (Rusch and Gavrilets 2017; Trotter et al., 2009). The individuals under stress tend to be more dissatisfied from the job, feel undervalued and are not committed to the job. All these personal consequences have been found related to high levels of perceived stress in the job (Hanson et al., 2015; Winstanley and Hales, 2014; Franz et al., 2010; Hogh et al., 2005; Gerberich et al., 2004). This study therefore, focuses on a specific set of employee level outcomes such as; “work fatigue”, “psychological withdrawal”, “neglect” and “aggression” in relation to perceived stress and hypothesize that;

*Hypothesis 5: Job stress is positively related to personal consequences (work fatigue, psychological withdrawal, neglect and aggression).*

Based on the above stated literature (Smith et al., 2018) and previous studies job stress is defined as “the experience of unpleasant, negative emotions such as tension, anxiety, frustration, anger and depression” which are the result of nature of the job (Salami, 2010, p.486), or it can also be defined as “the interaction of work conditions with characteristics of the worker such that

the demands of work exceed the ability of the worker to cope with them” (Ross and Altmaier, 1994, p.12).

Employees experience an emotion that is full of tension; they are anxious and start having anxiety while being on their jobs. The employees usually go into depression because of such unpleasant experience as they feel anger and are incapable of responding positively towards their environment (Heuvel et al., 2017). Job stress occurs while an employee is interacting with their environment and the work conditions of their jobs and are faced with such demands and characteristics of the job that don't match their capacity. Therefore, these employees feel they are unable to perform their duties and work as per the requirement as they see a gap between their capability and the requirement of job hence, they feel stressed and worried.

Thus, it can be stated that stress affects the behavior of the employees. Therefore, it is hypothesized:

Hypothesis 6a: *Job stress mediates the relationship between challenge demands and employee's personal consequences.*

Hypothesis 6b: *Job stress mediates the relationship between job resources and employee's personal consequences.*

Considering the discussion above, following framework is proposed;

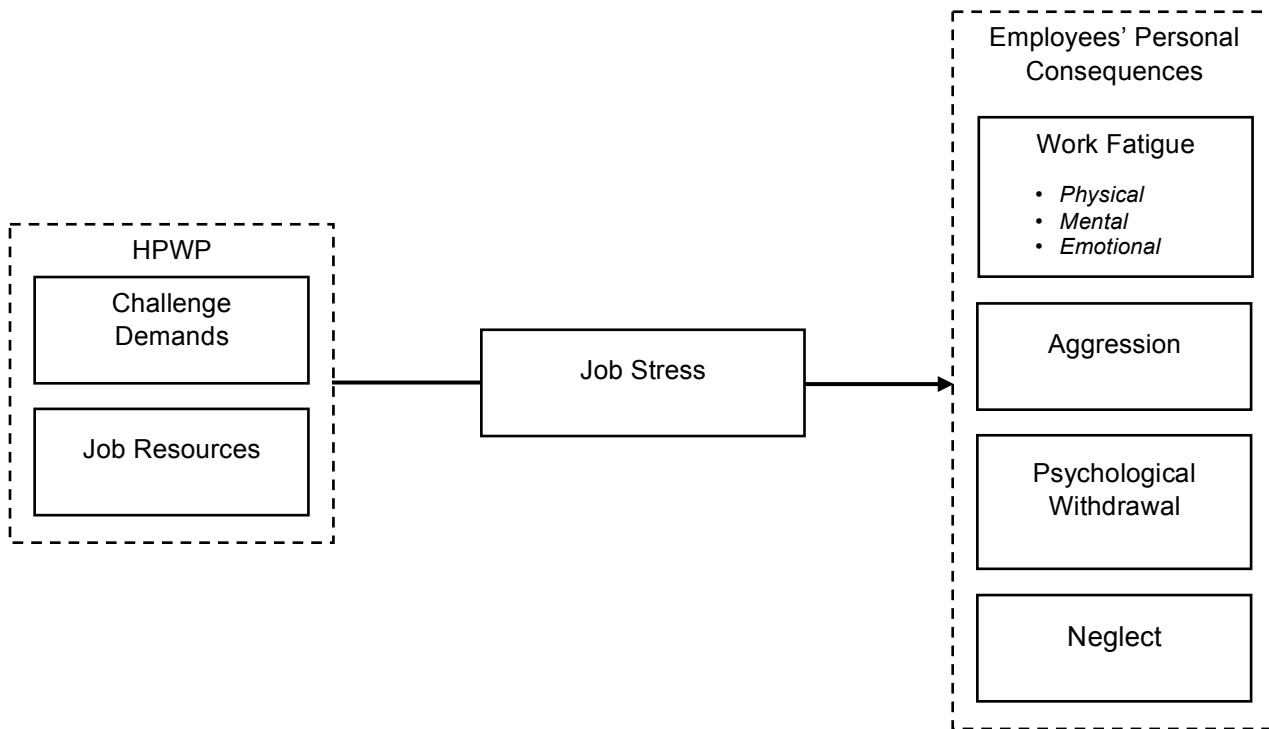


Fig 2.1 Theoretical Framework

Hypothesized model of the study showing HPWPs (challenge demands and job resources) as independent variable, employee's personal consequences as dependent variables, job stress as mediator.

## 2.9. Summary of the Chapter

This chapter has been divided into two parts. The first part is the literature review of the variables of the study starting from the independent variable; high performance work practices with focus on challenge demands and job resources variable, next dependent variables are covered starting from work fatigue, aggression, psychological withdrawal and neglect. After that the chapter covers the mediating role of stress, how it is related to both dependent and independent. The chapter ends with the proposed hypothesis supported with relevant theories used hypothesized framework.



Summary of hypotheses under study:

<b>HYPOTHESIS</b>	<b>STATEMENT</b>
H1	High performance work practices (challenge demands) are positively related to employee personal consequences (work fatigue, psychological withdrawal, neglect and aggression).
H2	High performance work practices (Job resources) are negatively related to employee personal consequences (work fatigue, psychological withdrawal, neglect and aggression).
H3	Challenge demand HPWPs (Performance evaluation and continuing education) are positively related to job stress.
H4	Job resource HPWPs (Flexible working hours and participation in decision-making) are negatively related to job stress.
H5	Job stress is positively related to personal consequences (work fatigue, psychological withdrawal, neglect and aggression)” such that higher the level of stress higher will be the personal consequences.
H6a	Job stress mediates the relationship between HPWPs (challenge demands) and employee’s personal consequences.
H6b	Job stress mediates the relationship between HPWPs (job resources) and employee’s personal consequences.

## CHAPTER 3

### Research Methodology

#### 3. Introduction

This chapter constitutes of the methodology used for conducting this research study. The focus is on the research philosophy followed, detailed description of the research design adopted, strategy and data collection methods. The chapter ends with a description of questionnaire design, measures used and the analytical procedures applied on the collected data.

#### 3.1. Research Philosophy

Research philosophy is a concept that states the existence of different views of a phenomenon and to see the world and its processes (Saunders et al, 2015). According to Gray (2013) and Sahay, 2016, research philosophy explains and states our interpretation of existence, what is reality and how knowledge is produced? As how we see the reality affects our way of understanding and gaining knowledge. “Pragmatism, Positivism, Interpretivism and Realism” are the four main research philosophies (Holden and Lynch, 2004). Based on our approach to reality, Saunders (2011) states that positivism is based on socially visible reality following a fully structured and systematic methodology with law like results and generalizable outcomes (Saunders et al., 2015). This study is based on positivism stating that data collected when analyzed would give generalizable results and there is a fully structured objective reasoning towards the phenomena.

After looking at the research philosophy it is necessary to shed some light on the ontology and epistemology of the research philosophy. According to Bryman and Bell (2015) and Saunders (2011) ontology is concerned with the nature of reality and looks at the assumptions regarding the working and the operations of the world. Where as, Epistemology refers to the situations and matters in relevance to the constituents of tolerable and acceptable knowledge in the field of research and studies (Bryman and Bell, 2015).

The present study is based on the positivist epistemology in order to objectively analyze the causal relationship between high performance work practices and employee personal

consequences in the presence of employee perceived stress as the mediating variable. Applying this research philosophy, stance of a natural scientist is taken with the purpose of deductively assessing the relationship among the selected variables with the help of existing theories by following the hypothetico-deductive research approach.

Moving further, ontologically the study is based upon the fact that there is only one reality being the objective truth that is not changeable regardless of the social actor and is governed by the theoretical support. Where as, the epistemology of this study is built upon the concept of separate identities of the investigator (researcher) and the study being conducted. Therefore, the phenomena is studied without being influenced neither by the actor (researcher) nor influencing the actor (Sahay, 2016). Therefore, the objective ontology and positivist epistemology of this study is followed by the deductive research approach adopted in this study. These are aligned and as per the research question and objectives of this research thus, justifying the use of positivist approach in the study.

### **3.2. Research Design and Research Strategy**

Two basic research strategies for conducting research are quantitative and qualitative research strategies (Creswell & Creswell, 2017). The choice however is dependent on the above described approaches, ontology, epistemology and philosophical stance that the study is built on. This research is based on quantitative research strategy, which uses statistical tools and procedures to empirically investigate the hypothesis or the topic of interest (Yilmaz, 2013). The use of quantitative research strategy is also aligned with the research objectives of the study therefore, aligning the design with the philosophy above discussed aspects as well.

Further on, in order to make the study accurate and effective the method of data collection used was survey method and data was collected at one point in time, as that is the most suitable method for positivist and quantitative research. The questionnaire had close ended questions (please see in Annexure A). Respondents were asked to select one of the options given to them against each statement. Thus, the quantitative research strategy was supported with cross-sectional research design using survey questionnaires as research method for collection of data.

### **3.3. Participants and Procedure**

The research targeted respondents were employees of private construction companies based in Islamabad, Karachi, and Quetta. This sector was considered as the most suitable for this study considering the companies had adopted high performance work practices and implementing them in their organizations to different extents (Chapano, Iwu and Darko, 2018). This was reconfirmed after visiting the companies and conducting an initial interview with a couple of managers that the companies were implementing the practices that this study intended to analyze. The data collection started after contacting the HR departments of each company through phone calls and physical visits to two of the companies. References were used in order to get inside the organizations. Data was collected personally by visiting these organizations; no online data collection portal was used. The anonymity of respondents and organizations was assured and kept in mind.

Alongside the anonymity in regards to the organization, the questionnaires were also designed in a manner to keep the anonymity of the respondent in mind, as the data collected might have proven harmful if used against the respondents. Therefore, the questions were not related to their personal information such as name, phone number, address etc.

#### **3.3.1. Sampling Technique:**

For sampling a combination of simple random and convenience sampling was used, as in such technique every employee has an equal chance of being the participant in the study and there is equal probability for everyone (Taherdoost, 2020). Therefore, as reference was available in all companies access to employees was based on convenience and also each and every employee had an equal chance of being the respondent in the research. The questionnaires were self-administered but clarification or help needed from the researcher was also provided to the respondents. A sample size of 415 respondents was achieved after initial screening and analyzing only the acceptable responses, which were neither incomplete nor un-engaged responses. The sample size was in accordance with the recommendations of Krejcie and Morgan (1970), Garson (2008) and Bartlett, Kotrlik & Higgins (2001).

### **3.4. Measures**

Different scales were used for different variables ranging from a simple ‘yes’, ‘no’ answer option to a 5 point Likert scale with 1 being very low and 5 being very high for one variable and 1 being never to 5 being almost always for other variables. 5-point Likert scale was used to increase the quality and rate of response as literature also suggests the same (Bouranta, Chitiris and Paravantis, 2009; Dawes, 2008; Sachdev and Verma, 2004). The questionnaire was designed by adopting the items already tested for reliability and the scales used were considered as reliable and valid by other researchers.

#### **3.4.1. High performance work practice**

Items used in a study by Topcic et al., in 2015, measured HPWPs divided in two categories and the same was used in this study Flexible working hours; Flexible working hours was measured with a 2-point scale, where (1) meant that they are available in the company and (2) meaning that they are not available. Performance evaluation systems/performance appraisal; this variable asked if formal performance evaluation systems are available in the company with the answers yes (1) and no (2). Participation in decision-making; Participation in decision-making was measured with a 5-point scale, where answers varied from very low (1) to very high (5). Continuing education; the question of how often employees received continuing education was measured on a 5-point scale, with the answer possibilities being never (1) – always (5).

After deliberate consideration and pilot testing it was decided to use a different measure for the performance variable as only the presence or absence of performance appraisal in an organization is not enough to study its effect on stress and other dependent variables. Therefore a measure by Takeuchi et al., 2007 including items related to performance appraisal was used although this measure included other items pertaining to other characteristics of high performance work practices but, in this study only performance related items were used such as “performance is based on objective, quantifiable results”, “performance appraisals include management by objective with mutual goal setting”, “performance appraisals include developmental feedback” and “incentives are based on team performance”. In total the scale had 2 items for job resource variable and 4 items for challenge demands variable as a whole. The Cronbach’s Alpha score was found to be 0.792 thus, considered as acceptable.

### **3.4.2. Work Fatigue**

Work fatigue was measured through a three dimensional inventory by Frone and Tidwell (2015). They divided work fatigue into three parts, physical, mental and emotional and the scale used a 5-point likert scale with 1 being never to 5 being almost always. Total items of the scale were 18, 6 for each component of the inventory. The items included were “You feel mentally exhausted at the end of the workday?” and “You want to avoid anything that took too much emotional energy at the end of the workday?” This scale used was the most suitable scale as it was most comprehensive and covered all three aspects of the concept. Three types of work fatigue were assessed separately for reliability of the scale and their Cronbach’s Alpha score was found to be 0.743, 0.848, 0.838 for physical, mental and emotional work fatigue respectively.

### **3.4.3. Aggression**

Aggression was measured using the scale given by Jockin et al., in 2001 ranging from 1 never to 5 always. It included items such as: “You have gotten into physical fights” and “You have threatened coworkers”. With a total of 4 items in the scale the Cronbach’s Alpha score value for this measure was found to be 0.729.

### **3.4.4. Psychological Withdrawal**

A measure by Shapiro et al., (2011) was used ranging from (1) never to (5) always. It included items such as: “Spent work time on personal matters” and “Let others do your work” with a total of 3 items in the scale. The Cronbach’s score was found to be 0.705 for this measure.

### **3.4.5 Neglect**

In order to measure neglect a measure by Rusbult et al., (1988) was used ranging from (1) never – (5) always. It included items such as “I care very little about what happens to this company as long as I get a paycheck”. And “Sometimes when I don't feel like working I will work slowly or make errors”. The scale in total had 5 items. The value of Cronbach’s Alpha for this measure was found to be 0.728.

### **3.4.6. Job Stress**

Job stress was measured using a scale by Shukla & Srivastava (2016). The scale was derived from previous scales and also modified with a focus on the most reliable items inclusion. The scale was based on likert scale with 1 being never to 5 being always. The scale was divided into two parts, time related stress and anxiety related stress. The items included were like “Many a times, my job becomes a big burden” and “I have a lot of work and fear that very little time to do it” with a total of 9 items in the scale. The reliability of this measure evident from the Cronbach’s Alpha was acceptable with a score of 0.773.

## **3.5. Analytical Procedures**

Descriptive statistics covering mean, median, standard deviation, frequency, skewness and kurtosis were performed using SPSS v.23 on the data collected from the respondents. Furthermore, normality of the data, linearity, homoscedasticity and multicollinearity were also checked using SPSS v.23. In the same way, internal consistency and reliability of the variables was examined by calculating Cronbach’s alpha (Cronbach, 1951). Hypotheses were tested using hierarchical regression analysis (adding predictors in steps).

### **3.5.1. Data Screening**

Before testing of hypotheses, data screening was performed on the collected data in order to identify the missing values, outliers and unengaged responses. Additionally, normality, linearity, homoscedasticity and multicollinearity processes were also conducted for the same purpose. These processes were in accordance with the work done by Tabachnick and Fidell (2007). Both SPSS v. 23 and Microsoft Excel v.2013 were used for this purpose. Missing values in case of statements assessed on Likert Scale were completed by considering mean of the responses obtained against that statement. After the screening 415 responses were finalized for analysis

Data normality was further evaluated to check the regularity of the data (Schafer & Graham, 2002). Kurtosis (“measure of peakedness of a distribution”) and skewness (measure of dataset’s symmetry) were the two main tests that were used for this purpose. As per researchers (Joanes and Gill, 1998), Skewness is concerned with the dispersal of the data where as, Kurtosis refers to the assessment of distribution of

the data by plotting standard deviation and the altitude of the graph having bell shape. In the same way linearity was checked between the predictor and outcome variables. Next Homoscedasticity test was implemented that ensured the equal placement of responses along the line with same scatter. After which, multicollinearity was also conducted.

### **3.5.2. Reliability Analysis**

Reliability analysis (internal consistency analysis) is considered as a vital assessment in analysis of the data measuring the consistency of the items that are used in the instrument (Kimberlin & Winterstein, 2008; Gliem & Gliem, 2003). Thus, making the chance of getting the same results with another set of respondents high. Cronbach's (1951) alpha, is generally used for reliability analysis with an acceptable value of 0.60 (Sekaran2006) where as, there are researchers who prefer the value given by O'Leary-Kelly & Vokurka's (1998) of 0.70.

### **3.5.3. Multicollinearity Analysis**

According to researchers (Alin 2010) "multicollinearity refers to the linear relationship among two or more variables, which also means lack of orthogonality among them" (p. 370). Before moving on to the further analysis of the variables it is very important to check the multicollinearity of the data showing that the if there is possible multi collinearity in the data that does not affect the relationship that the study has intended to assess. This suggests that it is necessary to check that any one of the variable such as job stress or any other is not an outcome of any other predictor with a significantly accurate level therefore, Variance inflation factor/VIF is used to measure for measuring multicollinearity and the acceptable value of this test is considered less than three.

### **3.5.4 Correlation Analysis**

Correlation is a vital part in assessment of data as it measures the possible existing linkage and linearity existing between variables (Cohen, Cohen, West, & Aiken, 2013). The results achieved through this analysis not only give us the linkage between two variables but also shows the strength of those linkages. Therefore, for this purpose correlational analysis were conducted on the variables under study.



### **3.6 Summary of the Chapter**

This chapter involved different aspects of the research, focusing on the methodology used for the research and analytical procedures and tools used. It starts of by stating the research philosophies adopted, sampling techniques used and data collection procedures applied in this study. Later on the chapter describes the measures and the scales used in order to collect the data for this research. Finally the chapter ends on presentation of key aspects of the analytical strategy followed and the appropriate and required procedures that were conducted under that strategy.

## CHAPTER 4

### Results and Analysis

#### 4.0 Introduction

This chapter illustrates the results of the various analysis performed on the data. Starting with descriptive results of the data

#### 4.1 Demographic analysis:

To develop dependable estimate of the selected sample, the study evaluated the dimensions and dynamics of populations through socio-demographic analysis. A total of 415 responses were finalized to show the demographic characteristics of the population which included gender, age, competitive pressure faced by respondents and presence of children and number of dependents at home of the respondent.

The results regarding gender wise distribution of the respondents presented the data classified into three categories; male, female and other. Majority of the respondents were male constituting 85.5% of the total population, while female constitute 14% and only one respondent opted for other in gender category, making 0.5% of the population. Distribution of the respondents on the basis of age revealed that most of the respondents (37.1%) were from age group ranges between 20—29 years. 33.3% of the respondents belonged to the age group of 30—39 years, 21.9% to age group of 40—49 years, whereas only 7.2% and 0.5% of the respondent were from age group ranging 50 to 59 years and 60 and above respectively.

The data depicts the competitive pressure faced by the respondents. In accordance with the collected information, most of the respondent declared the prevalence of competitive pressure comprising 30.4% as sufficient pressure, 20.5% as low to some pressure, 13.3% as significant pressure and 9.9% as strong pressure whereas only 26% of the total respondents completely denied the existence of competitive pressure. Respondents were asked about the presence of children at home and the responses comprised in the manner that majority of the respondents, making 50.8% of the total population said that they have children at home while 49.2% of the respondents stated that they have no children at home and data revealed the level of

dependency at home of the respondents as most of the respondents (39.0%) have the total numbers of the dependent member in their household ranging between 2—4; while 37.8% of the respondents have 5—6 dependent members, 12.3% have less than 2 members and only 10.8% of the respondents have 7—8 dependent members in their household.

Following is the table representing frequency, percentage of total sample, mean, standard deviation, skewness and kurtosis of the demographic variables:

**Table 4.1 Demographic analysis:**

Demographic Variable	Code	Frequency	% of Total Sample	Mean	SD	Skewness	Kurtosis
Gender	Male	355	85.5	1.15	.370	2.257	4.024
	Female	58	14.0				
	Others	2	.5				
Age	20--29	154	37.1	2.01	.962	.607	-.500
	30--39	138	33.3				
	40--49	91	21.9				
	50--59	30	7.2				
	60 and above	2	.5				
Competitive Pressure	No pressure	108	26.0	2.60	1.273	.300	-.888
	Low to some pressure	85	20.5				
	Sufficient pressure	126	30.4				
	Significant pressure	55	13.3				
	Strong pressure	41	9.9				
Children at home	Present	211	50.8	1.50	.505	.071	-1.858
	Not present	204	49.2				
No. Of dependent	Less than 2	51	12.3	2.47	.845	.015	-.592
	2--4	162	39.0				
	5--6	157	37.8				
	7--8	45	10.8				

*Table 4.1: Table of Frequency, Mean, SD, Skewness and Kurtosis of Demographic Variables*

## 4.2 Descriptive Statistics

Variables used in this study consist of High Performance Work Practices (HPWPs), Flexible hours (FH), level of participation (LOP), Performance Appraisal (PA), Continuing education (CE), Employee's Perceived Stress (ST), Aggression (A), Psychological withdrawal (PSYW), Work Fatigue (WF), Neglect (N). HPWPs basically cover the job resources including Flexible hours, level of participation and Challenge Demands that include Performance Appraisal and Continuing education. A, PSYW, WF (physical, mental, emotional) and N are the consequences that were hypothetical to be achieved through FH, LOP, PA and CE. Employee's perceived stress (ST) as Mediator in the study was supposed to assist in the achievement of consequences.

## 4.3. Variance Inflation Factor (VIF)

The study calculated Multicollinearity by Variable Inflation Factor to determine the strength of the correlation between the independent variables used in the study so that an independent variable can be predicted from another independent variable. To ensure the occurrence of multicollinearity between two or more independent variables in a regression model by taking a variable and regressing it against every other variable. The required value of VIF is less than 3. Numbers of collinearity analytics tests were run on SPSS through which it is found that all VIF were below 3 which is acceptable and thus, the Variable Inflation Factor established that predictors in the model are correlated.

**Table4.2 Variance Inflation Factor**

		<b>Tolerance</b>	<b>VIF</b>
1	PA	.998	1.002
	CE	.997	1.003
	LOP	.967	1.034
	ST	.965	1.036
Dependent Variable: FH			

2	PA	.999	1.001
	CE	.997	1.003
	ST	.995	1.005
	FH	.998	1.002
Dependent Variable: LOP			
3	CE	.997	1.003
	ST	.965	1.036
	FHs	.996	1.004
	LOP	.965	1.036
Dependent Variable: PA			
4	ST	.967	1.034
	FH	.995	1.005
	LOP	.964	1.037
	PA	.998	1.002
Dependent Variable: CE			
5	FH	.996	1.004
	LOP	.995	1.005
	PA	.998	1.002
	CE	.999	1.001
Dependent Variable: ST			

*Table 4.2: VIF Table, LOP=Level of participation; PA =Performance Appraisal; FH=Flexible hours; CE= Continuing education; ST= Job stress*

#### **4.4. Common Method Variance (CMV)**

Common method variance (CMV), also called Common method bias (CMB) may occur due to the instrument used for data collection in a research study. CMV describes the measurement error that is compounded by the sociability of respondents who want to provide positive answers (Chang, v. Witteloostuijn and Eden, 2010). To identify the potential problem of CMV, the study applied Harman's single factor test with the help of SPSS, in which all variables are loaded into one common factor. In accordance with the result of study's Harman's single

factor test the total variance for a single factor is less than 50%, it proposes that CMV does not affect the data under study.

Following is the table representing the values obtained from CMV analysis.

**Table 4.3 Common Method Variance**

Component Initial Eigen Values				Extraction Sums of Squared Loadings			
Component	Total	% of Variance	Cumulative %	Total	% of Variance	of	Cumulative %
1	8.105	15.587	15.587	8.105	15.587		15.587

*CMV calculated through Herman's Single Factor Test*

*CMV result= % of variance is < 50%, thus no common method biasness in the study*

#### 4.5. Reliability Analysis

Measurement scales and the items that compose the scales require reliability analysis to study its properties by calculating the associations between individual items in the scale. To check the consistency or stability of information gathered through instrument, the study performed reliability analysis through Cronbach's alpha, the most common measure of scale reliability. The value of alpha depends on the number of items on the scale (Cortina, 1993). For Cronbach's Alpha, calculated with relationships between all sets of items, internal reliability can diverge between zero and one, though there are occasionally aberrant negative values, as well (Ursachi, G., Horodnic, I. A., & Zait, A., 2015). The Cronbach's alpha coefficient, as general rule, designates an adequate level of consistency at 0.6-0.7 and 0.8 or greater a very good level of reliability (Hulin, Netemeyer, and Cudeck, 2001). The table given below shows the value of Chronbach alpha for each of the variable.

The results displayed that all variables had value higher than 0.6 showing adequate internal reliability. The reliability value of PA is 0.792 with 3 items and ST value is 0.773 with 9 items. The results also demonstrated that AG, PSYW, WFP, WFM and WFE value of Cronbach's alpha is 0.729, 0.705, 0.743, 0.848 and 0.838 respectively. N has reliability values 0.728. The results of Cronbach's alpha expressed that the scales used in the data collection tool are appropriate for the study as Cronbach's values for all variables are within acceptable range.

**Table 4.4 Result of Reliability Analysis**

Measures	Cronbach's Alpha
PA	.792
ST	.773
AG	.729
PSYW	.705
WFP	.743
WFM	.848
WFE	.838
N	.728

*Table 4.4: Cronbach alpha values for the variables; PA, Performance Appraisal; ST, Employee's perceived stress; AG, Aggression; PSYW, Psychological withdrawal; WFP, Work Fatigue (physical); WFM; Work Fatigue (mental); WFE, Work Fatigue (emotional); N, Neglect and OS, perceived organizational support.*

#### **4.6. Correlation Analysis**

To analyze the extent quantitative variables are linearly related, study formulated correlation matrix with mean and standard deviation of all variables. The correlation coefficient is measured on a scale that varies from + 1 through 0 to - 1. The table given below shows a positive correlation among all variables.

**Table 4.5: Results of Coefficients of Correlation**

S No.	Variable	Mean	S.D	1	2	3	4	5	6	7
1	PA	10.883	3.09529							
2	ST	31.071	7.02300	.022						
3	AG	9.9325	3.41710	-.017	.193**					
4	PSYW	9.6723	3.29229	-.006	.100*	.328**				

5	WFP	20.180	5.34495	.154**	.112*	.227**	.494**			
6	WFM	19.5518	6.35402	.241**	.121*	.284**	.312**	.414**		
7	WFE	17.8554	6.42935	.205**	.026	.269**	.261**	.108*	.263**	
8	N	15.3928	4.80312	-.130**	.197**	.305**	.244**	.217**	.216**	.068

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

*Notes: Means, standard deviations, correlation scores, and Cronbach's  $\alpha$  for all variables, PA, Performance Appraisal; ST, Employee's perceived stress; AG, Aggression; PSYW, Psychological withdrawal; WFP, Work Fatigue (physical); WFM; Work Fatigue (mental); WFE, Work Fatigue (emotional); N, Neglect*

## 4.7. Hypotheses Testing

This part presents the results that were obtained after performing regression analysis, and mediation analysis through PROCESS Macro v. 3.0.

High performance work practices (challenge demands; performance appraisal and continuing education) were observed to have a significant positive relationship with employee personal consequences (work fatigue (physical mental and emotional), psychological withdrawal, neglect and aggression) ( $\beta = .965^{***}$ ,  $p < 0.01$ ), thus, confirming Hypothesis 1.

**Table 4.6 Regression Analyses**

EPC		
Variable	Model 1 $\beta$	Model 2 $\beta$
<b>Gender</b>	3.173	2.822
<b>Age</b>	.075	-.699
<b>Competitive Pressure</b>	-1.483	-.522
<b>CD</b>		.965***
<b>R<sup>2</sup></b>	.013	.038



$\Delta R^2$	.013	0.025
$F^2$	3.356	16.752

*N= 415; Regression between independent variables (CD, challenge demands) and dependent variables (EPC, employee personal consequences)*

High performance work practices (Job resources; Flexible working hours and participation in decision-making) showed a significant negative relationship with employee personal consequences (work fatigue (physical mental and emotional), psychological withdrawal, neglect and aggression) ( $\beta = -1.782^{**}$ ,  $p < 0.05$ ). Thus, Hypothesis 2 was also accepted.

**Table 4.6 Regression Analyses between Job resources and employee personal consequences**

EPC		
Variable	Model 1 $\beta$	Model 2 $\beta$
<b>Gender</b>	3.173	2.900
<b>Age</b>	.075	.028
<b>Competitive Pressure</b>	-1.483	-1.480
<b>JR</b>		-1.782**
<b>R<sup>2</sup></b>	.013	.031
<b><math>\Delta R^2</math></b>	.013	.018
<b>F<sup>2</sup></b>	3.356	57.153

*N= 415; Regression between independent variables (JR, Job resources) and dependent variable (EPC, employee personal consequences)*

According to the results below Challenge demand HPWPs (Performance evaluation and continuing education) are positively related to employee's perceived stress with ( $\beta = 0.188^*$ ). Therefore, the third hypothesis H3 is also accepted.

**Table 4.7 Regression Analyses between challenge demands and Employee’s Perceived Stress.**

ST		
Variable	Model 1 $\beta$	Model 2 $\beta$
Gender	-.149	-.218
Age	-1.407	-1.558
Competitive Pressure	.310	.498
CD		.188*
R <sup>2</sup>	.033	.039
$\Delta R^2$	.033	.007
F <sup>2</sup>	21.715	7.929

*N= 415; Regression between independent variables (CD, challenge demands) and dependent variables (ST; Employee’s Perceived Stress).*

Job resource HPWPs (Flexible working hours and participation in decision-making) were observed to have a significant negative relationship with employee’s perceived stress ( $\beta = -.924^{***}$ ,  $p < 0.05$ ), thus, Hypothesis 4 is accepted.

**Table 4.8 Regression Analyses between Job resource) and Employee’s Perceived Stress.**

ST		
Variable	Model 1 $\beta$	Model 2 $\beta$
Gender	-.149	-.291
Age	-1.407	-1.431
Competitive Pressure	.310	.312
JR		-.924***
R <sup>2</sup>	.033	.066
$\Delta R^2$	.033	.033
F <sup>2</sup>	21.715	211.789

*N= 415; Regression between independent variables (JR, Job resource) and dependent variable (ST; Employee’s Perceived Stress).*

*N= 406; Regression between independent variables (JR, Job resource) and dependent variable (ST; job Stress).*

Job stress was found positively related to employee personal consequences (work fatigue (physical, mental and emotional), psychological withdrawal, neglect and aggression) with ( $\beta = 0.511^{***}$ ). Therefore, making the H5 acceptable.

**Table 4.9 Regression Analyses between Employee’s Perceived Stress and employee personal consequences**

EPC		
Variable	Model 1 $\beta$	Model 2 $\beta$
Gender	3.173	3.249
Age	.075	.794
Competitive Pressure	-1.483	-1.642
ST		.511***
R <sup>2</sup>	.013	.050
$\Delta R^2$	.013	.037
F <sup>2</sup>	3.348	249.924

*N= 415; Regression between independent variables (ST; Employee’s Perceived Stress) and dependent variable (EPC, employee personal consequences)*

#### **4.8 Mediation Analysis:**

**Table 4.10 Mediation Analysis**

	ST	EPC
GENDER	-.392(.676)	2.926(.221)
AGE	-1.614(.000)	.048(.962)
COMPETITIVE PRESSURE	.600(.058)	-.760(.340)
HPWPS (CD)	.188(.094)	.875(.003)**
ST		.480(.000)***

<b>F</b>	4.660	.070
<b>R<sup>2</sup></b>	.039	12.586

*N = 415; (\*\*\*)  $p < 0.001$ ; \*  $p < 0.05$ ), HPWPs (CD)= High performance work practices (Challenge Demand), St= Employee's Perceived Stress, EPC= employee personal consequences*

	ST	EPC
<b>GENDER</b>	-.291(.750)	3.034(.207)
<b>AGE</b>	-1.431(.000)	.688(.492)
<b>COMPETITIVE PRESSURE</b>	.312(.268)	-1.624(.030)
<b>HPWPS (JR)</b>	-.924(.000)***	-1.356(.038)*
<b>ST</b>		.461(.000)***
<b>F</b>	4.660	10.142
<b>R<sup>2</sup></b>	.066	.060

*N = 415; (\*\*\*)  $p < 0.001$ ; \*  $p < 0.05$ ), HPWPs (JR)= High performance work practices (Job Resources), St= Employee's Perceived Stress, EPC= employee personal consequences.*

## 4.9 Summary of findings

After conducting the analysis it was seen that hypothesis 1, 2, 3,4, 5 and 6 all were accepted. The above findings showed that increase in challenge demands HPWPs there is an increase in the personal consequences of an employee. Thus, work fatigue, aggression, psychological withdrawal and neglect becomes more prominent in an employee. Whereas job resource HPWPs is negatively related to these personal consequences of an employee. Similarly, stress was found to have a positive affect on employee personal consequences and was also found to mediate the relationship between the HPWPs with employee personal consequences.

## Results of hypothesis testing

**Table 4.11: Results of Hypothesis Testing**

H. No	HYPOTHESIS	RESULT	STATUS
<b>H1</b>	High performance work practices (challenge demands) are positively related to employee personal consequences (work fatigue, psychological withdrawal, neglect and aggression).	( $\beta = .965^{***}$ )	<b>Accepted</b>
<b>H2</b>	High performance work practices (Job resources) are negatively related to employee personal consequences (work fatigue, psychological withdrawal, neglect and aggression).	( $\beta = -1.782^{**}$ )	<b>Accepted</b>
<b>H3</b>	Challenge demand HPWPs (Performance evaluation and continuing education) are positively related to job stress.	( $\beta=0.188^*$ )	<b>Accepted</b>
<b>H4</b>	Job resource HPWPs (Flexible working hours and participation in decision-making) are negatively related to job stress.	( $\beta =-.924^{***}$ )	<b>Accepted</b>
<b>H5</b>	Job stress is positively related to personal consequences (work fatigue, psychological withdrawal, neglect and aggression).	( $\beta = 0.511^{***}$ )	<b>Accepted</b>
<b>H6a</b>	Job stress mediates the relationship between HPWPs and employee's personal consequences (challenge demands).	( $\beta = 0.480^{***}$ )	<b>Accepted</b>

<b>H6b</b>	Job stress mediates the relationship between HPWPs and employee's personal consequences (job resources)	$(\beta = 0.461^{***})$	<b>Accepted</b>
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#### 4.10. Summary of the chapter

The chapter constitutes of analysis and results of the thesis, starting with Mean, standard deviation, Skewness and kurtosis along with frequencies of the data are covered in this section. Next comes the description of the variables. Before moving to correlation analysis and testing of hypothesis through regression analysis and PROCESS macro, results of CMV and reliability analysis are also covered.

## CHAPTER 5

### Discussion, Conclusion, Limitations, Future Recommendations and Implications

#### 5.0. Introduction

This research aimed to find the affect of high performance work practices on employee personal consequences. The purpose of the study was to analyze the affect of two types of HPWPs, first being the challenge demands which included performance appraisal and continuing education and second set being job resources, flexible hours and level of participation. It was proposed that challenge demands have a positive relationship with employee negative personal consequences (work fatigue (physical, mental and emotional), aggression, psychological withdrawal and neglect). Where as, job resources have a negative relationship with these personal consequences. The study was also aimed at analyzing the role played by job stress as a mediator between the HPWPs and employee personal consequences. In this chapter the key findings of the research are discussed followed by the conclusion of the chapter including limitations and future recommendations of the study. The chapter ends with a small summary of the research.

#### 5.1. Key findings and discussion

The first hypothesis of this study was based on the assessment of affect of challenge demands high performance work practices on the personal consequences of an employee, these personal consequences includes physical, mental, psychological and emotional consequences. The findings from this analysis, High performance work practices (challenge demands; performance appraisal and continuing education) were observed to have a significant positive relationship with employee personal consequences (work fatigue (physical mental and emotional), psychological withdrawal, neglect and aggression) ( $\beta = 0.965^{***}$ ). This shows that when the person is being evaluated continuously and trained and educated very frequently they get exhausted and the pressure is high on them. With continuous and rigorous performance appraisals puts the pressure of always performing high on the employee therefore, increasing their level of fatigue and they become aggressive, they neglect their duties in some form or other,

they may be physically present on the job but psychologically they withdraw themselves. Thus all the above outcomes increased with rigorous performance appraisal systems and frequently continued education.

These findings are in congruence with the existing literature stating that some of the HPWPs although implemented to improve the performance of an organization may be resulting in opposite outcome than intended. Similarly as also discussed above in chapter two of the thesis personal consequences of an employee are generally the result of job characteristics i.e. either due to external causes related to job or internal. The focus of this study is on the job related factors, specifically HR practices as a cause of negative outcome. As literature (Rusch and Gavrillets 2017; Staaden et al., 2011;) and the supporting framework suggests that one category of the practices being the challenge demands prove to be more negative in impacting the personal consequences of employee (Topcic et al., 2015).

These findings are a contribution to existing literature as they support the hypothesis and it becomes clear for management that if they will try to give numerous trainings to their employees, that won't necessarily result in positive outcome. In the same way it has been proven from these findings that continuous and rigorous performance appraisals are not beneficial for the organization. Such as, when an employee in a construction company is constantly shadowed and given points or evaluated at every step he performs while constructing something or giving payments, buying materials etc. that would be a hinderance in his job as many times work is done as per the demands of the clients, which might change and flexibility is required. Therefore, every step and procedure should not be evaluated, as it will only prove to be harmful for the performance.

The second hypothesis of the study aimed to assess the affect of job resource HPWPs on the employee personal consequences. As per the findings, High performance work practices (Job resources; Flexible working hours and participation in decision-making) showed a significant negative relationship with employee personal consequences (work fatigue (physical mental and emotional), psychological withdrawal, neglect and aggression) ( $\beta = -0.1782^{**}$ ). This means that when the employees are provided with job resources such as flexible hours and high level of participation of employee would result in lower levels of negative behavior exhibited by the



employee. Therefore, when an employee receives job resources they will be less aggressive, less fatigued (physically, mentally and emotionally), show less or no withdrawal behavior and would not neglect the duties where they are given higher level of participation and hours of their own choice. Thus, the data of this study also shows the same trend.

The above findings therefore, depicts that in a construction company when the employees are given the opportunity of working in flexible hours and have their say in decision making they tend to be more relaxed and experience less stress. The employees are more confident in completing the projects and dealing with labor and raw materials regarding decisions and other important procedures when they are given authority and freedom to express. These findings are a huge contribution in practical terms as well as literature expansion as many contract-based companies would get an idea as to which practices to implement and which to let go.

The result and finding is again in congruence with the existing literature and as described above SHRM domain has thus, grown towards adopting a comprehensive implementation of bundles of practices for better results and better performances. These bundles or set of practices according to researchers (Messersmith & Lepak, 2013) generally stresses on the benefits of set of complimenting and supportive practices rather than the use of a single practice therefore, enhancing the firm's overall performance. These practices are considered to be positively affecting the firm's outputs, its retaining power, productivity of the firm and its efficiency levels (Chapano, 2018; Evans & Davis, 2005). According to researchers (Rhee et al., 2020) there is a bundle of HPWPs that improve the performance of an organization. These have a positive affect on the physical, mental and psychological state of an employee thus, generating positive outcomes. These set of practices are considered as the positive HPWPs and job resources such as flexible hours and level of participation is considered as a set of positively influencing practices (Topcic et al., 2015).

Third and fourth hypotheses of the study focused on the affect of challenge demands HPWPs and job resource HPWPs on the mediator, job stress respectively. The study aimed at assessing the relationship between the challenge demand practices, performance appraisal and continuing education on job stress. According to the findings Challenge demand HPWPs (Performance evaluation and continuing education) are positively related to employee's

perceived stress ( $\beta = .188^*$ ), the results were in congruence with the existing literature and theoretical support that higher the demands on an employee higher will be the level of stress.

The fourth hypothesis, which assessed the affect of job resource HPWPs on job stress, showed the results that were also in congruence with the hypothesis of the study. Job resource HPWPs (Flexible working hours and participation in decision-making) were observed to have a significant negative relationship with employee's perceived stress ( $\beta = -0.924^{***}$ ). The findings stated that an employee when provided with job- resource is less pressurized therefore the level of job stress is lower as well. Thus, more job resources will lead to lesser stress in an employee. These findings are in coherence with the existing literature and the hypothesis of the study.

As also discussed above various studies state that the level of stress can be reduced by coping mechanism provided in the form of resources and facilities to the employee such as time off, empowerment in decision making process, designing their own jobs etc. therefore supporting the above findings and the hypothesis stated earlier. (Bottiani et al., 2019; Giaouque et al., 2012; Schaufeli & Bakker, 2004; Demerouti et al., 2001; Schaufeli & Enzmann, 1998). Thus, these findings will be a positive contribution in the existing literature.

The fifth hypothesis analyzes the affect of job stress on employee personal consequences, stating that increase in job stress will result in higher level of negative personal consequences. The findings of analysis on the data concluded that Employee's perceived stress is positively related to employee personal consequences (work fatigue (physical, mental and emotional), psychological withdrawal, neglect and aggression) with ( $\beta = 0.511^{***}$ ). This means that stress has a highly significant positive relation with personal consequences, work fatigue (physical, mental and emotional), psychological withdrawal, aggression and neglect. The data suggests that whenever there is job stress the employee is most likely to exhibit these behaviors.

The sixth hypothesis analyzed the mediation of job stress as mediator between the independent variable (HPWPs) and dependent variable (employee's personal consequences), the study implemented three-step analysis;

In mediation analysis of hypothesis 6a, the first step taken by the study was to check the total effect of independent variable (HPWPs; Challenge Demand) upon dependent variable

(employee's personal consequences). The beta value (.875,  $p < 0.01$ ) showed the strong relation between the independent and dependent variable. The second step involved the evaluation of impact of independent variable (HPWPs; Challenge Demand) over mediator (Employee's perceived stress). The beta value (.188,  $p < 0.1$ ) showed the significant relation between the independent and mediating variable. Third step showed the mediating effect of the mediator upon the dependent or outcome variable. 0.480 as beta value ( $p < 0.001$ ) after linear regression analysis depicted very significant mediating effect of the mediator.

In mediation analysis of hypothesis 6b, the first step taken by the study was to check the total effect of independent variable (HPWPs; Job Resources) upon dependent variable (employee's personal consequences). The beta value (-1.356,  $p < 0.05$ ) showed mild negative relation between the independent and dependent variable. The second step involved the evaluation of impact of independent variable (HPWPs; Job Resources) over mediator (Employee's perceived stress). The beta value (-.924,  $p < 0.001$ ) showed very strong inverse relation between the independent and mediating variable. Third step showed the mediating effect of the mediator upon the dependent or outcome variable. 0.461 as beta value ( $p < 0.001$ ) after linear regression analysis depicted very significant mediating effect of the mediator.

These findings depict that stress mediates the relationship between high performance work practices and employee personal consequences. Employees under stress will exhibit negative behavioral, emotional and psychological outcomes. When employees are provided with resources their stress level will be lower and hence they will be more relaxed and feel secure and empowered in their organization therefore, they will not neglect their duties, nor experience high levels of work fatigue, and show less to no aggressive behavior. Whereas, when the employees were asked about performance appraisal and continuing education and trainings they showed high levels of stress and perceived their environment more negatively thus, exhibiting negative outcomes.

This is not only evident from this study but also as per the existing literature stated above and various studies conducted on stress states that employees under stress are not able to perform up to their potential and usually exhibit lower levels of job satisfaction and job involvement along with more negative outcomes (Smith, Hughes, Dejoy & Dayal, 2018; Shahzad, Rehman,

Shad, Gul, & Khan, 2011; Kazmi, Amjad, & Khan, 2008; Tennant, 2001; Repetti, 1993; Leino, 1989). In relation to stress various scholars have focused on HR practices such as HPWPs and considered them as an important organizational factor, which increases the level of stress in an employee. Thus, supporting the hypothesis and the findings of the study.

## **5.2. Conclusion**

### **5.2.1. Limitations of the Study and future recommendations**

This study has analyzed variables that are unique and not studied together before, Therefore, despite the fact that the study was conducted while keeping most of the factors in mind there were still a lot of possibilities and variables that could be added in another study. The study took 2 practices each in job demands and resources framework whereas another set of practices could have been used as well. Therefore, in future studies more practices could be used.

Another limitation of this study is based on the nature of its design i.e. cross-sectional study. As data was collected for this study at one point in time therefore, it might not have taken temporal effects into consideration properly. Furthermore, this might have also introduced certain level of biasness in the cause and effect relationship that was taken into consideration for this study. Therefore, it is suggested that future work be focused towards longitudinal approach rather than cross-sectional approach. According to researchers measurement of stress longitudinally is more appropriate as it will give indication of the increase and decrease in level of stress with time (Jalilian et al., 2020) Another limitation of the study was that the data was collected from a single industry where as to expand the horizons it is important to collect data from various industries and compare them. Therefore, for future studies data could be collected from two to three industries and comparison could be taken as to differentiate in trends of the industries.

Even though this study conducted CMV biasness however, future studies could also look at conducting multi-wave and multi-source study to enhance the robustness of the study. Future researchers could look into this aspect of the analysis as well.

There is also the limitation of source of data collection as this data was taken from the perspective of employees where as, future studies could look at the data from the employer's side too. A key limitation is the selection of the outcome variables as there are many personal outcomes that are studied with stress and HPWPs so future studies could look into other outcomes in order to get another perspective for example, absenteeism, turnover intention etc.

### **5.2.2. Theoretical Implications**

This research was based on the work by Topcic et al., (2015) where they studied the affect of challenge demands and job resources on organizational outcomes. Where as, this study uses stress as mediator and looks into the employee specific outcomes. This study has much significance for research, theoretical and practical purposes such as; by examining the negative and the positive impact of the high performance work practices, which are generally implemented to improve the performance of the organization (Hoque et al., 2018). The variables used and the framework established was unique and never studied before. Therefore, the findings were a contribution towards the theory of stress, HPWP and employee consequences. It added to the existing literature by concluding that high performance work practices are not always beneficial for the organization and the findings adds and supports the JD-R model as resources provide a more secured and empowered environment while cushioning the impact of the job demands.

### **5.2.3. Practical Implications**

Practically it has implications, as well as in Pakistan generally accepted concepts are rarely applicable in the real terms in organizations. Therefore, this study was of significance and to examine such an interesting concept in the context of Pakistan was a major contribution of this study. The study becomes significant as it was not only from the perspective of the managers or top management rather it looked at the individual level perceptions of the employees about the darker side of these HPWPs and how they were affecting the behaviors and outcomes (Russell, Steffensen, Ellen, Zhang, Bishoff & Ferris, 2018). Thus, adding to the knowledge of the managers and all those who try to implement these practices.

This research aimed to find the affect of high performance work practices on employee

personal consequences. The purpose of the study was to analyze the affect of two types of HPWPs, first being the challenge demands which included performance appraisal and continuing education and second set being job resources, flexible hours and level of participation. It was hypothesized that challenge demands have appositive relationship with employee negative personal consequences (work fatigue (physical, mental and emotional), aggression, psychological withdrawal and neglect. Where as job resources have a negative relationship with these personal consequences. The study was also aimed at analyzing the role played by job stress as a mediator between the HPWPs and employee personal consequence and lastly the role of perceived organizational support between the relationship of challenge demands and job resources on stress was assessed whether it moderates the relationship and in which direction.

After conducting the analysis it was seen that hypothesis 1, 2, 3, 4, 5 and 6 were accepted. The above findings showed that increase in challenge demands HPWPs there is an increase in the personal consequences of an employee. Thus, work fatigue, aggression, psychological withdrawal and neglect becomes more prominent in an employee. Where as job resource HPWPs is negatively related to these personal consequences of an employee. Similarly stress was found to have a positive affect on employee personal consequences and was also found to mediate the relationship between the HPWPs with employee personal consequences.

As the variables used in this study were not tested with each other in such a framework before therefore, this study becomes unique and a significant contribution to research and body of literature also might help the practitioners in understanding the dual nature of HPWPs and implementing accordingly as the findings were shared with the targeted organizations and they decided to look into the practices and bring change accordingly by either changing their performance appraisal systems or the frequency of trainings as well as will consider other practices as well thus, the study contributed highly towards the operations of those companies.

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**Appendix I  
Questionnaire:**

Dear Sir/Madam,

You are requested to participate in a study, which is a part of MS Thesis. Your participation is necessary to complete this thesis and will be highly appreciated. The information provided by you will be kept confidential and for academic purpose only. The purpose of this study is to find out the impact of high performance work practices on personal consequences of employees. Please spare your precious time and try to answer the questions logically and on ground footing. This entire survey will take only 20 minutes. If you have any question related to this research please feel free to contact me on [mahnoornaseer13@gmail.com](mailto:mahnoornaseer13@gmail.com) Thanks & Regards,

Mahnoor Naseer  
MS Human Resource Management,  
Nust Business School,  
National University of Science and  
Technology, Islamabad.

**Tick The Practices Present In Your Organization**

**Flexible Hours**

**Continuing Education**

**Performance Appraisal Systems**

**Participation In Decision Making**

The following information is concerned about your position and other personal information. Please encircle the appropriate one.

1. Gender	Male	Female	Others		
2. Age (in years)	20 – 29	30 - 39	40 – 49	50 - 59	60 & above
3. Competitive Pressure	No Pressure	Low to some Pressure	Sufficient Pressure	Significant Pressure	Strong Pressure
4. Children at home	Present	Not Present			
5. No. of dependents	< 2	2-4	5-6	7-8	9 & above

***The following statements will measure the impact of HR practices. Please indicate your answer to each statement***

*by circling a number*

	<b>Yes</b>	<b>No</b>			
--	------------	-----------	--	--	--

	<b>Never</b>	<b>Seldom</b>	<b>Sometime s</b>	<b>Often</b>	<b>Almost always</b>
8. Performance appraisals include management by objective with mutual goal setting	1	2	3	4	5

6. Flexible hours are available in the organization	<b>1</b>	<b>2</b>			
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9. Performance appraisals include developmental feedback	1	2	3	4	5
10. Incentives are based on team performance	1	2	3	4	5
11. How often employees received continuing education	1	2	3	4	5
12. I have a lot of work and fear that very little time to do it.	1	2	3	4	5

	<b>Very Low</b>	<b>Below average</b>	<b>Average</b>	<b>Above average</b>	<b>Very high</b>
7. Level of participation of employees in decision making	1	2	3	4	5
					69



13. I feel so burdened that even a day without work seems bad	1	2	3	4	5
14. I feel that I never take a leave.	1	2	3	4	5
15. Many people at my office are tired of the company demand	1	2	3	4	5
16. My job makes me nervous.	1	2	3	4	5
17. The effect of my job on me is too high.	1	2	3	4	5
18. Many a times, my job becomes a big burden	1	2	3	4	5
19. Sometimes when I think about my job I get a tight feeling in my chest.	1	2	3	4	5
20. I feel bad when I take a leave.	1	2	3	4	5
21. You have gotten into physical fights	1	2	3	4	5
22. You have threatened coworkers.	1	2	3	4	5
23. You have had problems getting along with your coworkers	1	2	3	4	5
24. You have had problems getting along with your	1	2	3	4	5

supervisor.					
25. You left work for unnecessary reasons.	1	2	3	4	5
26. You spent time on personal matters.	1	2	3	4	5
27. You let others do your work	1	2	3	4	5
28. You feel physically exhausted at the end of the workday?	1	2	3	4	5
29. You have difficulty engaging in physical activity at the end of the workday?	1	2	3	4	5
30. You feel physically worn out at the end of the workday?	1	2	3	4	5
31. You want to physically shut down at the end of the workday?	1	2	3	4	5
32. You feel physically drained at the end of the workday?	1	2	3	4	5
33. You want to avoid anything that took too much physical energy at the end of the workday?	1	2	3	4	5
34. You feel mentally exhausted at the end of the workday?	1	2	3	4	5
35. You have difficulty thinking and concentrating at the end of the workday?	1	2	3	4	5
36. You feel mentally worn out at the end of the workday?	1	2	3	4	5
37. You want to mentally shut down at the end of the	1	2	3	4	5

workday?					
38. You feel mentally drained at the end of the workday?	1	2	3	4	5
39. You want to avoid anything that took too much mental energy at the end of the workday?	1	2	3	4	5
40. You feel emotionally exhausted at the end of the workday?	1	2	3	4	5
41. You have difficulty showing and dealing with emotions at the end of the workday?	1	2	3	4	5
42. You feel emotionally worn out at the end of the workday?	1	2	3	4	5
43. You want to emotionally shut down at the end of the workday?	1	2	3	4	5
44. You feel emotionally drained at the end of the workday?	1	2	3	4	5
45. You want to avoid anything that took too much emotional energy at the end of the workday?	1	2	3	4	5
46 Sometimes when I don't feel like working I will work slowly or make errors.	1	2	3	4	5
47. I try to keep out of sight of my supervisor so I can talk to co-workers, take breaks, or do other personal business (not work).	1	2	3	4	5
48. Now and then there are workdays where I just don't put much effort into my work. Sometimes when I just don't feel like working I will call in sick	1	2	3	4	5
49. I care very little about what happens to this company as long as I get a paycheck.	1	2	3	4	5
50. Now and then I arrive at work late just because I	1	2	3	4	5

really am not in the mood for work that day.					
51. My organization strongly considers my goals and values.	1	2	3	4	5
52. My organization shows very little concern for me.	1	2	3	4	5
53. My organization would forgive an honest mistake on my part.	1	2	3	4	5
54. My organization cares about my opinions.	1	2	3	4	5
55. If given the opportunity, my organization would take advantage of me	1	2	3	4	5
56. Help is available from my organization when I have a problem.	1	2	3	4	5
57. My organization is willing to help me when I need a special favor.	1	2	3	4	5

## APPENDIX 2

### STATISTICS OUTPUT

#### Descriptive Statistics

	Mean	Std. Deviation	N
PA	10.8843	3.09529	415
ST	31.0771	7.02300	415
AG	9.9325	3.41710	415
PSYW	9.6723	3.29229	415
WFP	20.1880	5.34495	415
WFM	19.5518	6.35402	415
WFE	17.8554	6.42935	415
N	15.3928	4.80312	415
OS	17.6361	5.99558	415

#### Correlations

		PA	ST	AG	PSYW	WFP	WFM	WFE	N	OS
PA	Pearson Correlation	1	.022	-.017	-.006	.154**	.241**	.205**	-.130**	-.272**
	Sig. (2-tailed)		.662	.727	.901	.002	.000	.000	.008	.000
	N	415	415	415	415	415	415	415	415	415
ST	Pearson Correlation	.022	1	.193**	.100*	.112*	.121*	.026	.197**	-.031
	Sig. (2-tailed)	.662		.000	.043	.023	.014	.603	.000	.530

	N	415	415	415	415	415	415	415	415	415
AG	Pearson Correlation	-.017	.193**	1	.328**	.227**	.284**	.269**	.305**	-.198**
	Sig. (2-tailed)	.727	.000		.000	.000	.000	.000	.000	.000
	N	415	415	415	415	415	415	415	415	415
PSY W	Pearson Correlation	-.006	.100*	.328**	1	.494**	.312**	.261**	.244**	-.295**
	Sig. (2-tailed)	.901	.043	.000		.000	.000	.000	.000	.000
	N	415	415	415	415	415	415	415	415	415
WFP	Pearson Correlation	.154**	.112*	.227**	.494**	1	.414**	.108*	.217**	-.274**
	Sig. (2-tailed)	.002	.023	.000	.000		.000	.028	.000	.000
	N	415	415	415	415	415	415	415	415	415
WFM	Pearson Correlation	.241**	.121*	.284**	.312**	.414**	1	.263**	.216**	-.452**
	Sig. (2-tailed)	.000	.014	.000	.000	.000		.000	.000	.000
	N	415	415	415	415	415	415	415	415	415
WFE	Pearson Correlation	.205**	.026	.269**	.261**	.108*	.263**	1	.068	-.260**
	Sig. (2-tailed)	.000	.603	.000	.000	.028	.000		.168	.000
	N	415	415	415	415	415	415	415	415	415
N	Pearson Correlation	-.130**	.197**	.305**	.244**	.217**	.216**	.068	1	-.187**
	Sig. (2-tailed)	.008	.000	.000	.000	.000	.000	.168		.000
	N	415	415	415	415	415	415	415	415	415
OS	Pearson Correlation	-.272**	-.031	-.198**	-.295**	-.274**	-.452**	-.260**	-.187**	1
	Sig. (2-tailed)	.000	.530	.000	.000	.000	.000	.000	.000	

N	415	415	415	415	415	415	415	415	415
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\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

### Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.105	15.587	15.587	8.105	15.587	15.587
2	3.936	7.568	23.155			
3	3.086	5.934	29.089			
4	2.948	5.670	34.759			
5	2.412	4.639	39.398			
6	2.038	3.920	43.318			
7	1.757	3.378	46.696			
8	1.544	2.970	49.665			
9	1.334	2.565	52.230			
10	1.269	2.440	54.670			
11	1.202	2.312	56.983			
12	1.150	2.211	59.194			
13	1.095	2.106	61.300			
14	.991	1.905	63.205			
15	.972	1.869	65.075			
16	.891	1.713	66.788			

17	.885	1.701	68.489		
18	.828	1.592	70.081		
19	.824	1.585	71.665		
20	.787	1.514	73.179		
21	.746	1.435	74.614		
22	.718	1.381	75.996		
23	.707	1.359	77.355		
24	.694	1.335	78.689		
25	.661	1.271	79.960		
26	.623	1.198	81.158		
27	.607	1.167	82.325		
28	.590	1.134	83.460		
29	.551	1.060	84.520		
30	.542	1.042	85.562		
31	.530	1.020	86.582		
32	.511	.983	87.565		
33	.492	.946	88.511		
34	.469	.902	89.413		
35	.459	.884	90.297		
36	.435	.837	91.134		
37	.414	.796	91.929		
38	.384	.739	92.669		
39	.378	.727	93.395		
40	.366	.703	94.098		
41	.356	.685	94.783		



42	.340	.654	95.438			
43	.316	.607	96.045			
44	.298	.572	96.617			
45	.282	.543	97.160			
46	.265	.510	97.669			
47	.235	.452	98.122			
48	.228	.438	98.559			
49	.220	.423	98.982			
50	.202	.388	99.370			
51	.190	.366	99.736			
52	.137	.264	100.000			

Extraction Method: Principal Component Analysis.

### Demographic analysis:

Demographic Variable	Code	Frequency	% of Total Sample	Mean	SD	Skewness	Kurtosis
<b>Gender</b>	Male	355	85.5	1.15	.370	2.257	4.024
	Female	58	14.0				
	Others	2	.5				
<b>Age</b>	20--29	154	37.1	2.01	.962	.607	-.500
	30--39	138	33.3				
	40--49	91	21.9				
	50--59	30	7.2				

	60 and above	2	.5				
<b>Competitive Pressure</b>	no pressure	108	26.0	2.60	1.273	.300	-.888
	low to some pressure	85	20.5				
	sufficient pressure	126	30.4				
	significant pressure	55	13.3				
	strong pressure	41	9.9				
<b>Children_at_home</b>	present	211	211	1.50	.505	.071	-1.858
	not present	204	204				
<b>No. of_dependent</b>	less than 2	51	12.3	2.47	.845	.015	-.592
	2--4	162	39.0				
	5--6	157	37.8				
	7--8	45	10.8				

## Frequencies

		Statistics				
		Gender	Age	Competitive Pressure	Children_at_home	No_of_dependent
N	Valid	415	415	415	415	415
	Missing	0	0	0	0	0
Mean		1.15	2.01	2.60	1.50	2.47
Std. Deviation		.370	.962	1.273	.505	.845
Skewness		2.257	.607	.300	.071	.015
Std. Error of Skewness		.120	.120	.120	.120	.120

Kurtosis	4.024	-.500	-.888	-1.858	-.592
Std. Error of Kurtosis	.239	.239	.239	.239	.239

### Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	355	85.5	85.5	85.5
	Female	58	14.0	14.0	99.5
	other	2	.5	.5	100.0
	Total	415	100.0	100.0	

### Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20--29	154	37.1	37.1	37.1
	30--39	138	33.3	33.3	70.4
	40--49	91	21.9	21.9	92.3
	50--59	30	7.2	7.2	99.5
	60 and above	2	.5	.5	100.0
	Total	415	100.0	100.0	

### Competitive Pressure

		Frequency	Percent	Valid Percent	Cumulative Percent
--	--	-----------	---------	---------------	--------------------

Valid	no pressure	108	26.0	26.0	26.0
	low to some pressure	85	20.5	20.5	46.5
	sufficient pressure	126	30.4	30.4	76.9
	significant pressure	55	13.3	13.3	90.1
	strong pressure	41	9.9	9.9	100.0
	Total	415	100.0	100.0	

### Children\_at\_home

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	present	211	50.8	50.8	50.8
	not present	204	49.2	49.2	100.0
	Total	415	100.0	100.0	

### No\_of\_dependent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 2	51	12.3	12.3	12.3
	2--4	162	39.0	39.0	51.3
	5--6	157	37.8	37.8	89.2
	7--8	45	10.8	10.8	100.0
	Total	415	100.0	100.0	

## VIF OUTPUT

### Coefficients<sup>a</sup>

		Collinearity Statistics	
Model		Tolerance	VIF
1	PA	.998	1.002
	CE	.997	1.003
	LOP	.967	1.034
	ST	.965	1.036

a. Dependent Variable: Flexible\_hours

### Coefficients<sup>a</sup>

		Collinearity Statistics	
Model		Tolerance	VIF
1	PA	.999	1.001
	CE	.997	1.003
	ST	.995	1.005
	Flexible_hours	.998	1.002

a. Dependent Variable: LOP

### Coefficients<sup>a</sup>

Collinearity Statistics

Model		Tolerance	VIF
1	CE	.997	1.003
	ST	.965	1.036
	Flexible_hours	.996	1.004
	LOP	.965	1.036

a. Dependent Variable: PA

**Coefficients<sup>a</sup>**

Collinearity Statistics

Model		Tolerance	VIF
1	ST	.967	1.034
	Flexible_hours	.995	1.005
	LOP	.964	1.037
	PA	.998	1.002

a. Dependent Variable: CE

**Coefficients<sup>a</sup>**

Collinearity Statistics

Model		Tolerance	VIF
1	Flexible_hours	.996	1.004
	LOP	.995	1.005
	PA	.998	1.002
	CE	.999	1.001

a. Dependent Variable: ST

## **Regression Analysis:**

### **Hypothesis 1**

#### **Analysis output**

#### **Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	92.659	3.579		25.889	.000
	Gender	3.173	2.452	.064	1.294	.197
	Age	.075	1.004	.004	.075	.941
	Competitive Pressure	-1.483	.759	-.102	-1.953	.052
2	(Constant)	77.635	5.789		13.410	.000
	Gender	2.822	2.426	.057	1.163	.246
	Age	-.699	1.020	-.036	-.685	.494
	Competitive Pressure	-.522	.806	-.036	-.648	.518
	CD	.965	.294	.171	3.278	.001

a. Dependent Variable: EPC

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.115 <sup>a</sup>	.013	.006	18.39396	.013	1.832	3	411	.141
2	.196 <sup>b</sup>	.038	.029	18.17968	.025	10.746	1	410	.001

a. Predictors: (Constant), Competitive Pressure, Gender, Age

b. Predictors: (Constant), Competitive Pressure, Gender, Age, CD

## Hypothesis 2

### Analysis output

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	92.659	3.579		25.889	.000
	Gender	3.173	2.452	.064	1.294	.197
	Age	.075	1.004	.004	.075	.941
	Competitive Pressure	-1.483	.759	-.102	-1.953	.052
2	(Constant)	99.753	4.389		22.727	.000
	Gender	2.900	2.435	.058	1.191	.234
	Age	.028	.996	.001	.028	.978
	Competitive Pressure	-1.480	.753	-.102	-1.964	.050
	JR	-1.782	.648	-.134	-2.750	.006

a. Dependent Variable: EPC



### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.115 <sup>a</sup>	.013	.006	18.39396	.013	1.832	3	411	.141
2	.176 <sup>b</sup>	.031	.022	18.24890	.018	7.560	1	410	.006

a. Predictors: (Constant), Competitive Pressure, Gender, Age

b. Predictors: (Constant), Competitive Pressure, Gender, Age, JR

### Analysis output

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.264	1.349		24.663	.000
	Gender	-.149	.924	-.008	-.161	.872
	Age	-1.407	.378	-.193	-3.719	.000
	Competitive Pressure	.310	.286	.056	1.085	.279
2	(Constant)	30.338	2.203		13.774	.000
	Gender	-.218	.923	-.011	-.236	.814
	Age	-1.558	.388	-.213	-4.014	.000
	Competitive Pressure	.498	.307	.090	1.623	.105
	CD	.188	.112	.088	1.678	.094

a. Dependent Variable: ST

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.181 <sup>a</sup>	.033	.026	6.93168	.033	4.660	3	411	.003
2	.199 <sup>b</sup>	.039	.030	6.91642	.007	2.816	1	410	.094

a. Predictors: (Constant), Competitive Pressure, Gender, Age

b. Predictors: (Constant), Competitive Pressure, Gender, Age, CD

## Hypothesis 4

### Analysis output

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.264	1.349		24.663	.000
	Gender	-.149	.924	-.008	-.161	.872
	Age	-1.407	.378	-.193	-3.719	.000
	Competitive Pressure	.310	.286	.056	1.085	.279
2	(Constant)	36.942	1.640		22.521	.000
	Gender	-.291	.910	-.015	-.319	.750
	Age	-1.431	.372	-.196	-3.845	.000
	Competitive Pressure	.312	.282	.057	1.109	.268
	JR	-.924	.242	-.182	-3.815	.000

a. Dependent Variable: ST

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.181 <sup>a</sup>	.033	.026	6.93168	.033	4.660	3	411	.003
2	.257 <sup>b</sup>	.066	.057	6.82014	.033	14.553	1	410	.000

a. Predictors: (Constant), Competitive Pressure, Gender, Age

b. Predictors: (Constant), Competitive Pressure, Gender, Age, JR

## Hypothesis 5

### Analysis output

### Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	92.659	3.579		25.889	.000
	Gender	3.173	2.452	.064	1.294	.197
	Age	.075	1.004	.004	.075	.941
	Competitive Pressure	-1.483	.759	-.102	-1.953	.052
2	(Constant)	75.651	5.537		13.662	.000
	Gender	3.249	2.410	.065	1.348	.178
	Age	.794	1.003	.041	.792	.429

Competitive Pressure	-1.642	.747	-.113	-2.197	.029
ST	.511	.129	.195	3.976	.000

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.115 <sup>a</sup>	.013	.006	18.39396	.013	1.832	3	411	.141
2	.223 <sup>b</sup>	.050	.041	18.07126	.037	15.809	1	410	.000

a. Predictors: (Constant), Competitive Pressure, Gender, Age

b. Predictors: (Constant), Competitive Pressure, Gender, Age, ST

## Hypothesis 6

### Analysis Output H#6(a):

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.181 <sup>a</sup>	.033	.026	6.93168	.033	4.660	3	411	.003
2	.199 <sup>b</sup>	.039	.030	6.91642	.007	2.816	1	410	.094

a. Predictors: (Constant), Competitive\_Pressure, Gender, Age

b. Predictors: (Constant), Competitive\_Pressure, Gender, Age, CD

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33.264	1.349		24.663	.000
	Gender	-.149	.924	-.008	-.161	.872
	Age	-1.407	.378	-.193	-3.719	.000
	Competitive_Pressure	.310	.286	.056	1.085	.279
2	(Constant)	30.338	2.203		13.774	.000
	Gender	-.218	.923	-.011	-.236	.814
	Age	-1.558	.388	-.213	-4.014	.000
	Competitive_Pressure	.498	.307	.090	1.623	.105
	CD	.188	.112	.088	1.678	.094

a. Dependent Variable: ST

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.115 <sup>a</sup>	.013	.006	18.39396	.013	1.832	3	411	.141
2	.265 <sup>b</sup>	.070	.059	17.89639	.057	12.586	2	409	.000

a. Predictors: (Constant), Competitive\_Pressure, Gender, Age

b. Predictors: (Constant), Competitive\_Pressure, Gender, Age, ST, CD

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
				Beta		
1	(Constant)	92.659	3.579		25.889	.000
	Gender	3.173	2.452	.064	1.294	.197
	Age	.075	1.004	.004	.075	.941
	Competitive_Pressure	-1.483	.759	-.102	-1.953	.052
2	(Constant)	63.087	6.893		9.153	.000
	Gender	2.926	2.389	.059	1.225	.221
	Age	.048	1.024	.003	.047	.962
	Competitive_Pressure	-.760	.796	-.052	-.956	.340
	CD	.875	.291	.155	3.009	.003
	ST	.480	.128	.183	3.753	.000

a. Dependent Variable: EPC

## Analysis Hypothesis 6b

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.181 <sup>a</sup>	.033	.026	6.93168	.033	4.660	3	411	.003
2	.257 <sup>b</sup>	.066	.057	6.82014	.033	14.553	1	410	.000

a. Predictors: (Constant), Competitive\_Pressure, Gender, Age

b. Predictors: (Constant), Competitive\_Pressure, Gender, Age, JR

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
				Beta		
1	(Constant)	33.264	1.349		24.663	.000
	Gender	-.149	.924	-.008	-.161	.872
	Age	-1.407	.378	-.193	-3.719	.000
	Competitive_Pressure	.310	.286	.056	1.085	.279
2	(Constant)	36.942	1.640		22.521	.000
	Gender	-.291	.910	-.015	-.319	.750
	Age	-1.431	.372	-.196	-3.845	.000
	Competitive_Pressure	.312	.282	.057	1.109	.268
	JR	-.924	.242	-.182	-3.815	.000

a. Dependent Variable: ST

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.115 <sup>a</sup>	.013	.006	18.39396	.013	1.832	3	411	.141
2	.245 <sup>b</sup>	.060	.048	17.99796	.047	10.142	2	409	.000

a. Predictors: (Constant), Competitive\_Pressure, Gender, Age



b. Predictors: (Constant), Competitive\_Pressure, Gender, Age, JR, ST

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
				Beta		
1	(Constant)	92.659	3.579		25.889	.000
	Gender	3.173	2.452	.064	1.294	.197
	Age	.075	1.004	.004	.075	.941
	Competitive_Pressure	-1.483	.759	-.102	-1.953	.052
2	(Constant)	82.722	6.475		12.777	.000
	Gender	3.034	2.402	.061	1.263	.207
	Age	.688	1.000	.036	.688	.492
	Competitive_Pressure	-1.624	.744	-.112	-2.182	.030
	JR	-1.356	.650	-.102	-2.085	.038
	ST	.461	.130	.175	3.537	.000

a. Dependent Variable: EPC