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EFFECTS OF FLEXIBILITY & PERMEABILITY ON JOB SATISFACTION OF WOMEN ENGINEERS: A STUDY OF PAKISTAN SOFTWARE INDUSTRY

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ABSTRACT

A wide range of research shows that increased work load and after work hours, lowers job satisfaction of working women. Moreover, they also cause negligence of family and personal life. Working women find it very difficult to manage their office and home responsibilities specially in eastern settings. The interest of this study is to find out whether the borders among their office work and home work should be kept stronger or blur. For this purpose, the impact of permeability, operational flexibility, temporal flexibility and supportive supervision on women job satisfaction were investigated. Software industry of Pakistan was approached to conduct this study. It's explanatory and descriptive in nature, and the quantitative research approach was used in this study. Data was collected through questionnaire from 160 women working in the software industry of Pakistan, that is the sample population of this study. Technique used in this study was random sampling technique. Results showed that operational flexibility, temporal flexibility and supportive supervision have a direct positive association with job satisfaction. However, permeability has a reverse negative association with job satisfaction. The findings of this study can be helpful for the policy makers of an organization in considering how flexible work hours, flexible work schedules, permeability and supportive supervision can affect job satisfaction of women engineers.

Key words: Dual career households, carryover of hours, flexible workhours, job satisfaction, temporal flexibility, supportive supervision, operational flexibility, flexible schedules, organizational aspects, permeability, border theory

Dedication

This thesis is dedicated to my beloved parents and teachers for being such important role models and for their continuous support and encouragement regarding my goals.

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In the Name of Allah, the most Beneficent, the most Merciful

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CHAPTER 1: INTRODUCTION

New products are being developed at a faster pace which requires more workforce without catering for the gender issue. In most of the software houses employees are hired based on their skills rather than the CGPA or the degree that they possess. The number of women seeking education in software, IT and Computer Science is increasing globally. Moreover, percentage of women in workforce is also increasing [1]. In past workplaces were considered as separate field from home [2], [3]. However, globalization has also opened many doors for women employment. Women in Pakistan has started participating in economic activities [4]. Despite the fact they are well educated, and they want to work, they still have to face certain hurdles because of their family, children and house work [2]. Employers can set different sort of flexible policies such as flexible work hours policy, career breaks compressed workweeks schedules, part time jobs, job sharing, work flexibility etc. that might be helpful for employees to maintain a balance between their responsibilities of office and home and, become satisfied with their job [6], [7], [8]. Moreover, these concepts are linked with work life balance, workplace equality, different kind of policies at workplace and alternate work patterns [7]. Flexible workplaces are those which makes employees comfortable and feel like home regarding purpose and values. However, organizations make flexible policies but not to serve employees rather to serve their own interests which affects employees' expectations. According to a theory known as work/family border theory if an organization cannot change its culture then the borders between home and office, that are two different domains if kept stronger can be beneficial for employees because this way they can maintain a balance [3].

Flexibility is a key for working smarter whether its temporal flexibility or operational flexibility. Successful organizations involve new organizational concepts, mobility of workers, allow employees to choose work settings, collaboration, temporal flexibility and talent enrichment etc. Balancing between office hours and personal life is one of the important issue

[8]. The flexible workhours and controlled working conditions can help working mothers in balancing job responsibilities and children's responsibilities. In addition, they also contribute in job satisfaction, employees career success, employee engagement and employees motivation [9]. A theoretical viewpoint of work and family is role theory which states that when there are multiple roles in an individual's life and he has to perform all of them, they result in role conflict and the individual finds it difficult to perform each role successfully [10]. A supportive supervisor can help his employees in this matter. Employees and supervisors work together daily. Supportive supervisor respects the needs of his employees. Through discussion he understands about the family responsibilities of employees and then help him attain a balance between his responsibilities [11]. He can help him by providing the knowledge about family friendly policies of an organization, reducing his work family conflict, provide him with flexible work schedules etc. This way the supportive supervisor can help employees. However, if the supervisor is not supportive, he disapproves the family friendly policies because of which employees cannot use these policies. Moreover, employees do not find it easy to discuss their any issue with a non-supportive supervisor.

Job satisfaction is considered to be a global concept which is an indicator of employees' well-being, but is also aggregate of satisfaction with characteristics or aspects of an individual's job [12]. Job satisfaction is a significant measure for the society and the economy. According to a research, women job satisfaction has a connection with both intrinsic and extrinsic rewards. Intrinsic rewards are the rewards such as freedom on the job, learning something new and accomplishing something. Whereas extrinsic rewards are rewards like bonus and promotion etc. [13]. Different studies on job satisfaction have documented a reverse association among absenteeism and job satisfaction. In addition they also documented a weak-to-moderate association among turnover and job satisfaction [14].

The number of women seeking education and working in the software industry are increasing [1]. Until 1960s, the common belief about women was that education is not important for them and they are only suitable as housewives. If they are educated they can only work in the field of education and they can teach in schools [15]. Today, women seek higher education and they are more focused towards seeking jobs rather than sitting at home. Moreover, as the world is getting globalized and technological trends are changed, it has brought so many employment opportunities for women in Pakistan and around the world as well. Women living in Ireland, Indonesia, Bangladesh and Thailand that are conservative countries also had a chance to have a great freedom because of globalization. This helped in the reduction of poverty as the participation of women increased in economic activities [16]. As number of dual earner families are increasing work family conflict is also increasing which leads to lessen job satisfaction as well as home satisfaction of employees. Different organizations are adopting different policies to help their employees attain the balance and get the home satisfaction and job satisfaction [11].

Out of many factors influencing job satisfaction and organizational commitment relationship is organizational culture [17]. Organizational culture is a concept for mode of thinking taking place in an organization. It is the social reality generated through social interactions. In a research it is suggested that intervening variables may be present like organizational culture that explains the organizational commitment-job satisfaction relationship. However, from one organization to other, organizational culture differs and it can be helpful in determining job satisfaction of employees [18], [19]. Different studies in various countries and industries showed strong positive effect of supportive cultures on job commitment and job satisfaction. However, organization's bureaucratic cultures have a reverse impact [17]. According to a research, culture of an organization is defined as – innovative, bureaucratic and supportive [20]. The first culture that is innovative culture, it consists of

dynamic and creative office atmosphere. Employees are given proper directions at their work to accomplish the goal. This culture can be defined as risk taking, pressurized, challenging, creative, risk taking, result oriented and driving. Bureaucratic culture is known for organized, hierarchical, compartmentalized, clear authority lines and systematic work. This culture can be defined as solid, cautious, power oriented, structured, ordered, regulated, established and procedural. The supportive culture consists of trusting, encouraging, and friendly work culture. It can also be defined as safe, supportive, social, trusting, relationships oriented, encouraging and collaborative.

In this research firstly, some previously done work on organizational aspects; permeability, operational flexibility, temporal flexibility and supportive supervision will be explained. By using the existing findings, these aspects will be considered from dual career households and women dealing with career, children and house work, and borders between work and home perspective. Secondly, association of organizational aspects with job satisfaction such as temporal flexibility and job satisfaction, operational flexibility and job satisfaction, supportive supervision and job satisfaction, and permeability and job satisfaction will be examined. Moreover, it would be figured out whether the boundaries between homework and office work should be kept stronger or blur.

PROBLEM STATEMENT

For women engineers working in software industry it is very difficult to achieve a balance among their office and home responsibilities specially in eastern settings which affects their job satisfaction.

RESEARCH QUESTIONS

- How permeability effects the job satisfaction of women engineers who are working in Software Industry of Pakistan?
- How flexibility effects the job satisfaction of women engineers who are working in Software Industry of Pakistan?
- What measures can be taken to ensure enhanced job satisfaction of female engineers specially related to their flexibility issues?
- How supportive supervision effects the job satisfaction of women engineers who are working in Software Industry of Pakistan?

OBJECTIVES

- The role of permeability in women engineer's life and its impact on their job satisfaction
- Role played by flexibility on women engineer's job satisfaction
- The measures that can be taken to ensure enhanced job satisfaction of female engineers specially related to their flexibility issues
- Effects of supportive supervision on women engineer's job satisfaction working in Pakistan Software Industry

SIGNIFICANCE OF THE STUDY

The relation between flexibility, supportive supervision and permeability still needs better clarification. It is not clear that in eastern setting, work and family borders should be kept separated or not. The findings of this study will be beneficial for the Software Houses. As now a day employee is being hired not on the basis of CGPA but on the basis of skills they possess. While sometimes hiring an employee the women skills better meet the specific skill sets required by the software house. As women face several kinds of hurdles while performing their job and it becomes very difficult for them to manage their personal life, home responsibilities

and office responsibilities, it leads to quitting the job. As in eastern culture women must take care of her home, children, parents, and she also has to manage office responsibilities but because of less cooperation from offices she cannot maintain a balance between her responsibilities. This study will help Software Houses understand if they can provide different types of flexibilities to their women employees it would enhance their job satisfaction and personal life satisfaction as well. It will become easier for them to create a perfect balance between both the domains (office domain and home domain). Moreover, their performance would also enhance which would automatically increase the overall performance of an organization.

CHAPTER 2: LITERATURE REVIEW

This section of the study includes previously done researches about temporal flexibility, operational flexibility, supportive supervision, permeability, job satisfaction and impact of all the independent variable (temporal flexibility, operational flexibility, supportive supervision, permeability) of this study on dependent variable (job satisfaction) of this study.

Work/Family Border Theory

Workplaces that makes employees feel like home are flexible workplaces. Organizations make different flexible policies for employees but in actual these policies only serve the interests of organizations and not of employees. According to work/family border theory if an organization cannot change its culture then the borders between home and office should be kept stronger to help employees maintain a perfect balance [3]. In this theory home and work are named as two separate domains. These domains have different cultures. Where there is difference in culture the strong borders can help employees balance their life. Moreover, it does not allow one domain to influence the other.

In this research relationship between permeability, operational flexibility, temporal flexibility and supportive supervision, and job satisfaction were examined. Moreover, it was clarified if blurring between borders can contribute towards job satisfaction or not. Temporal flexibility is referred to flexibility related to time at workplace [21]. It can be formal policies; that can remove employees schedule conflicts, informal flexibility; that permits an employee for handling any emergency and flexible work hours; an organization's policy that permits employees to decide their arrival and departure time while completing their number of working hour per week [7], [8], [11], [21], [22]. For example, if office timing is from 9am to 5pm where every employee must attend the office for 8 hours. Employees are given free hand to arrive before starting time or leave after finish time [23]. Flexible timing of work only offers ease in

planning, it does not reduce the time of working. Some organizations offer 2-hour flexibility while some offer 1.5 hour only [11]. Some organizations offer flexible work hours but do not offer carryover of hours. While some organizations permit carryover of hours on weekly basis. This work setting is mostly followed in software industry as they are nonmanufacturing firms. Companies offer flexible workhours as it gives benefits to employer and employee both [6], [11]. In a study it is further described that previously flexible workhours were considered only beneficial for women but as our society is changing, men have also started utilizing them[6]. The staff can change the working hours to suit their personal circumstances. Moreover, they get the same level salary each month even with the varying working hours. In addition, companies would not face a 24-hour absenteeism because staff will take care of their working hours [24].

Operational flexibility that is known as controlled work conditions [21]. It includes getting the work done without unnecessary restrictions and monitoring. A wide range of research shows that operational flexibility causes employee satisfaction regarding their work and job. In addition, operational flexibility also plays a positive role in their family life. Clark mentioned in his research that operational flexibility adopted by organizations will have more productive and satisfied employees [25]. Moreover, it will allow employees to manage their family responsibilities in a better and relaxed way, which results in achieving family satisfaction. A study states that work satisfaction helps in understanding how to encourage employees to improve their productivity [23]. Therefore, organizations must satisfy their employees because dissatisfied employees can lead to absenteeism and turnover.

Supportive supervision; organizations supporting the employees that have family responsibilities. A wide range of research shows that supportive supervision can be reinforced in an organization in many ways [21]. It can be reinforced by CEO or high rank executive. Supervisors plays an important role in spreading this culture. They should be supportive and

encourage employees about using the flexible work policies, leave policies. Moreover, employee performance is also judged by them. In past it was a common thinking of employees that supervisors should not get involved in the personal life of employee. However, this thinking has changed now. Specially working parents wants that their supervisors should accommodate them during family crisis. This is because supportive supervision reduces stress and reduce role conflicts as well. In addition, it also improves family functioning and job performance.

Permeability; when a person is physically in one domain and mentally in another role [26], [27]. Permeability means when an employee is facing domain interferences. For example, if a women worker is physically in office but mentally, she is thinking about her home or children or about picking her children after school or wondering what the children are doing at home, that's what diverts her attention from work. If she would be allowed to use telecommunication devices she can stay connected to her home while being in office and it would contribute towards her personal satisfaction from both work and home. Same is the case with those women who are on executive level, they have to stay connected to their office all day and even after office hours.

This study is interested in finding out the impact of above-mentioned aspects of an organization on working women's job satisfaction.

Temporal Flexibility and Job Satisfaction

The increased work load has played a major role in the negligence of family and personal life, and in lessening job satisfaction [8]. Working women can utilize flexible work hours to coordination between their responsibilities. Flexible workhour policy gives an option to employees to decide on their own what time to arrive in office and what time to leave the office but completing the specific number of hours. However, it is not enough for employees simply

wanting flexible work hours, the companies must see the business type and benefits then decide accordingly. Flexible work hour policy is more suitable for nonmanufacturing firms. This is may be because manufacturing firms work on a proper schedule such as production and assembly line etc. However, it is easy to follow in software industry. Flexibility in working hours of offices can cause lower absenteeism and stress at workplace, and enhance staff motivation and morale [8].

A study describes women's job satisfaction in terms of income and job[28]. Moreover, the existence of occupational segregation when employees are overrepresented or underrepresented in any occupation on the bases of gender discrimination. The reason is described as some occupations require physical strength while the women are assumed as not having the required level of physical strength. However, women around the world gets financial independence, happiness, free from poverty and free from violence when they are economically empowered. Furthermore, it is observed that empowerment of women has a positive effect on their families, children, outings, health, education, spending on food etc. As the most important resource of a country is its human talent, on the base of which they can compete in the market. So, larger workforce would be more productive. Therefore, bringing in talented women can make the workforce larger.

Another research described the economic transformational changes of Malaysia, that in the beginning was agricultural based but now it has transformed into a strong economy that is industrial based [29]. 14 service industry organizations from Malaysian business hub were examined and the questionnaires were got answered by women. The women employment was increased at that time and there arose a concept of dual career household. However, women faced a lot of hurdles related to issues of work and home. In addition, at a particular time how will they prioritize their work of office or home. Economists argued that flexible workhours can solve this problem. In addition, it can help employers to retain talented women in the

workforce. Firstly, the findings revealed that women with high education and higher post show interest in flexibility than the women with lower level education. Secondly, women think by using flexibility at workplaces they can set a better relationship with family, children and work.

In a study two federal government agencies were compared Cao (2005). One agency was following flexible time and had 393 employees. The other agency was following standard time and had 313 employees. The results indicated a strong relation between flexible time and managing office and family responsibilities. These employees found it is easy to get a balance among their work life and home life and manage them easily. They also suggested to provide more flexible programs for two employed parents such as leave policies, shorter working day for parents etc.

A research was conducted on effects of flexible time and compressed workweeks schedules on performance, job satisfaction, absenteeism etc. [30]. As flexible time and compressed workweeks were adopted by many of the organizations. For this analysis 39 studies were examined. It was found both flexible and compressed workweeks schedules have a positive impact on work related criteria [31]. However, no effect of flexible workhours on self-rated performance was found. Moreover, compressed work schedule has no effect on absenteeism.

Organizations adopted flexible work hour schedule because of societal changes, as dual career household concept is getting increased, and number of working women are also getting increased [32]. These factors increased the demand of employees regarding flexible work hours, to better adjust at workplace to get satisfied with their job.

As the world is getting globalized, the software companies are facing a great opportunity to deal with international clients. Moreover, they also want to hire talented employees from around the world. The employers adapt this strategy to attract quality workers [33]. The authority of deciding arrival and departure time given to employees make them feel

that their employer cares for them [6]. This way employee's job satisfaction can be enhanced and it results in better performance of employees for the company.

Employee motivation is also important in job satisfaction. A literature defining association among flexible workhours and employee motivation was conducted using questionnaire and data analysis was done using inferential and descriptive statistics[8]. Findings indicated a positive association among flexible working hours and motivation level of employee. It was helpful to understand that productivity can be increased with the same number of workforces. So, it is considered as the most suitable options that can be implemented in the company.

Some authors examined the relationship among flexible work settings and job satisfaction in their research [23]. Data was collected through questionnaire survey. The sample population were 95 employees, whose data was studied and analyzed through SPSS. The results showed a positive association among flexible work settings and job satisfaction of employees. If an employee is offered with flexible work settings, it is a productive method and HRM can build a positive relation among company goals and employees. When organization boost their employee's objective then they become more committed to the organizations. At the work place they become productive. However, they don't want to sacrifice their personal life. So, an organization must develop strategies that satisfies the needs of their employees. In the result employee become satisfied with his job and rate of turnover and absenteeism become low. The author further mentioned job satisfaction indicators as salary satisfaction, relationship with supervisor, work satisfaction, relationship with colleagues, job security, rewards, job design and promotion opportunities.

Operational Flexibility and Job satisfaction

Organizations are facing the challenge of getting work done from the employees since very long. One factor that makes a difference between average performing companies and top performing companies is effective job commitment [17]. The feelings that an employee possesses towards his job indicates the satisfaction level of that employee [18]. Employees whose dedication level is strong towards their organization are highly satisfied with their job [17].

A wide range of research has been done on job satisfaction and from empirical and conceptual perspective, vast literature is also present. Focus of one line of research is on work outcomes like absenteeism, turnover and productivity. Job satisfaction also has certain degree of effects on morale of employees, grievance expressions of employees, absenteeism, quality improvement, turnover rate and playing a role in decision-making [18]. Other line of research, focuses on effects of job satisfaction on job and worker characteristics [34]. Job satisfaction directs an employee's response of regarding to his job, as well as towards the work executed solely or in a group [17].

An author in his research discussed different essay, such as global supply chain management review, unit production cost reduction technology adoption and operational flexibility's impact on economic exposure of firm where the currency vary under global competition [35]. He considered a global firm and compared its three operational strategies. The results indicated that because of adopting operational flexibility the firm's profit got increased than it was expected. Moreover, it also reduces the downside risk.

Flexible work practices also known as contingency working [7]. In a literature the author mentioned that flexible working improves the personal satisfaction and helps employees to create a perfect balance among his home and organizational demands. It has a positive effect on an individual's autonomy. It gives freedom to employees to choose how they want to work.

Moreover, they can also decide hours of working each day. This way dual career households can easily manage office work and home work.

A study investigated about why organizations adopt flexible work programs [36]. In this study the author conducted a survey for finding why flexible work programs are adopted by organizations and the results indicated that flexible programs improve employee's motivation level and morale. Almost 89% of the responses showed that adopting flexible programs enabled the employees to make their work and family lives stable. Moreover, they got to know that production is also increased because of the flexible programs [25].

A research was conducted in which the author compared the managers and workers of a German multinational firm [25]. The data was collected from interviewing and observing the participant. In this researched the author discussed that if work life balance is perfect, it leads to greater productivity and job satisfaction. Moreover, adopting flexible working practices would also be helpful in fulfilling the commitments of work and family. As work related and other problems such as family problems arise when the individual can't fulfill his family responsibilities. The findings show that manager's focus is on achieving status while the employee's focus is on achieving personal satisfaction. In the research the author further discussed about the flexible firm concept which has two meanings. One is referred to firms that uses telecommunications and scheduling which allows the employees of the firm to work at that time and location which suits them. Second is referred to firms that adjust and reduce their work forces according to the need. The concept of working at any time and from any location helps the employees to get their work schedules to fit according to their all commitments.

In a study an author developed a questionnaire regarding flexible work options [2]. The purpose for developing this questionnaire was to investigate the attitude of employees towards using flexible work options. The questionnaire was filled by 344 public service employees

and 212 non-academic employees of a university. Results indicated that purpose of balancing work and family was the major reason behind using flexible work options. The author discussed about Australian data which showed that number of employed women who have pre-school children has increased from 35.7% to 45% from 1985 to 2000 respectively and that number of employed women increased from 58.4% to 66.8% who have school going children. Moreover, he discussed three levels for achieving work family balance, time management, inter-role conflicts management and for dependent family member, ensuring care arrangements. He further discussed that work family balance can be achieved by shorter working hours, career breaks, special breaks, part time job, parenting seminars, career protection for employees who use flexible work option.

Supportive Supervision and Job satisfaction

Men and women both are considered as pillars of society [4]. Despite this woman face a lot of hurdles while performing their jobs because of their family. Moreover, because of their children if they are married. This is very difficult for them to balance work life and parenting demands because women have to give more time to home and children than men. If mother and father both are earning, mothers more likely to take a day off and takes care of child [2], [37]. In some cases, because of being single parent, women have to work. When they do not have an alternative support system for their childcare they have to combine their care for children and career [5]. This situation increases their dual role burden because children need their attention for a normal life [8], [29]. As women have to give more effort and time to their house work and child care their mental and physical energy is divided while they are in the office [37]. This may affect employee's job performance and has an influence on the overall performance of an organization. If the employers do not pay attention towards this problem, they would have to face absenteeism, low work performance, low morale etc.

Support provided by the supervisor can increase motivation, career success, attendance, loyalty, productivity, job satisfaction and commitment [2], [25], [38]. Career success is related to job satisfaction. A literature investigated the impact of provided flexible work practices on employee's career success [39]. Signaling and attribution techniques were used on the data. The data was collected from 500 organizations, including 366 managers and 482 employees. They found out that work flexibility practices and career success are directly linked with ascription made by supervisors. In productivity attributions made by supervisors where flexible work practices and high employee commitment were linked, resulted in career premiums. In professional life attributions made by supervisors where flexible work practices and low employee commitment were linked, resulted in career penalties.

Supportive supervision helps employees improve their work performance [40]. Supportive supervisors develop an open and two-way communication that help in problem solving. In a research the author stated about the three supervision models [40]. One is autocratic; formal authority, pressure, threat and close control. This model suits when there are high task structures and employee needs directions. Second is democratic; that allows employees to contribute in decision making. Third is laissez faire; allows employees to make decisions and act accordingly, without the involvement of supervisor. Supervisors also monitor thru performance of employees towards the goals.

An author in his research investigated perceptions of employees about work family culture of an organization, supportive supervision and work schedules [11]. The sample size for this study was 917 employees who were full time employed and has children as well. The results show that work family culture of an organization and supportive supervision plays a mediating role between temporal flexibility and work family's roles. Supervision support is a part of work family culture of an organization. These findings show the importance of supportive supervision that help the employees in balancing a better family and office life.

Employees and supervisors work together daily. The author further discussed that instrumental and emotional support can be provided to the employees by their supervisors. Supervisor can understand employee's office matters and, family matters and responsibilities through discussion with him. This way a supportive supervisor can help his employees deal with his family when the family needs arises and balance office life as well.

A study examined perception of employees about their organization, whether its family sportive and has an impact on job satisfaction [10]. The data for the research was gathered from 522 employees working in different occupations. The findings revealed that family supportive organizations play a mediating role among family friendly policies, balancing between work & family commitments and job satisfaction of employees. Work family conflict are also connected with supportive supervision as supportive organizations also play a mediating role between them. The author further discussed that work family policies offered by the organizations are very important in maintaining competitive advantage, attracting talented work force, retaining them and raising their morale. These policies help employees gain a balance in their work and family lives. Work environment that support family needs involves two components in it. One of them is family supportive guidelines/ policies. The other one is family supportive supervisor. Both of these components are important for an employee.

Permeability and Job satisfaction

When a person is physically in the domain of one role but psychologically he is in another role's domain, this is known as permeability [3], [26], [27]. A theory known as work/family border theory, according to this theory office and home are two separate domains and it is very important that these domains must be kept with a perfect balance [3], [41]. Balance is defined as how people manipulate their environmental aspects to match their personal life preferences. This balance does not mean same for every person. For instance, the combination of energy and time spent on work activities and family activities might be different for every person. A

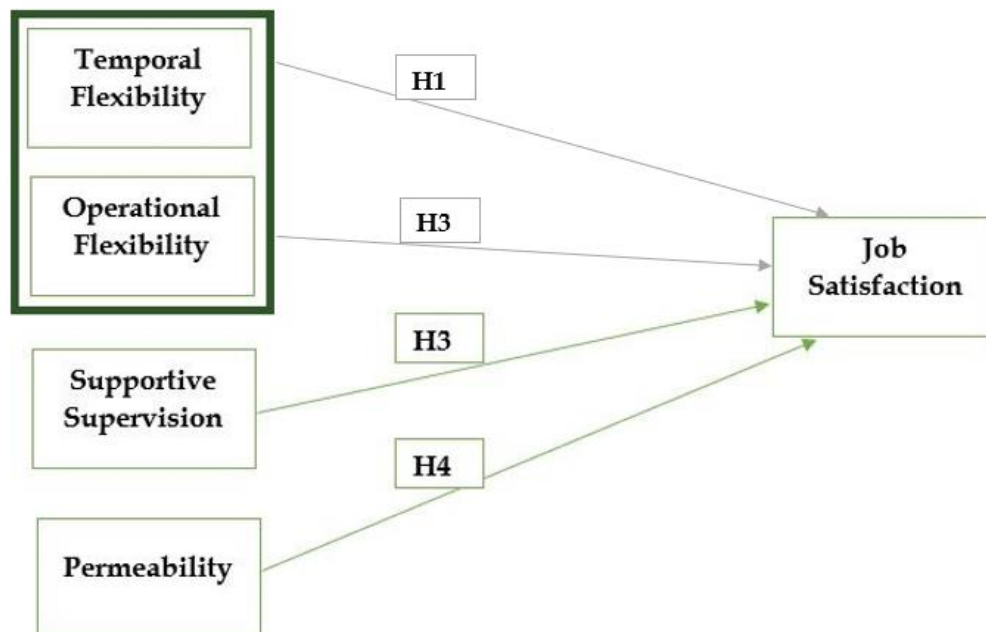
perfect balance can be attained if a person is comfortable with his responsibilities at workplace and home, and he can allocate his energy and time without any conflict [41].

A wide research has shown that information and communication technologies are widely used to take office work at home (home; a separate domain) and to take home at work (work; a separate domain) [27]. Women can use mobile phones and this way they can be contacted any time during office hours. The use of technology has increased permeability because they make employees more connected and available. These technologies also reduce the tension between family and work by providing flexibility and permeability in family and work environment [42]. Offices can be thought as a place where employees generate the information, process it and then communicate that information. It can be home or workplace, not necessarily a building. In this era most of the work is being conducted online while sitting at home and it has a significant impact on employees and workplaces both [27]. However, some employees don't feel happy about these technologies because without these technologies they would not be available after work.

A study describes how people create balance between their home and work environment by communicating with coworkers about family and with family about coworkers [41]. The author examined satisfaction at workplace and home, work family conflict and how a person functions at home and workplace. The data was collected from 179 employees who were working and have responsibilities of family as well. The result indicated that if home borders are more flexible and work border are more permeable, communication about the work at home is greater. In addition, permeability of home border reduces balance among family and work. In case of low permeability and high flexibility, work family conflict is found in those employees [27]. Furthermore, work family preference of the employee can be the reason of work family conflict.

Permeable boundaries are more open, and they allow passing from one group to another [43]. The permeable domain border may allow the interruption from the other domain [3]. For example, if a person has opened an office in his home. He has separated his office domain from his home domain with the help of walls and a door as a border. However, this border is very permeable as it allows domain interferences. While the impermeable boundaries are closed and doesn't allow passing from one group to another. If an employee is working in an impermeable occupational role, he becomes very tensed between his personal and social identity. The impermeable boundaries reduce the blurring between different roles and make it very difficult to cross the boundary. While the permeable boundaries enhance the blurring between different roles and make it very easy to cross the boundary.

Theoretical Framework



Hypothesis

H1: The more the temporal flexibility in workplace the more women engineers will be satisfied with their job.

H2: The more the operational flexibility in the workplace the more women engineers will be satisfied with their job.

H3: The more support women engineers get from supervisors the more they will be satisfied with their job.

H4: The lesser the permeability the more women engineers will be satisfied with their job.

The purpose of this research was to examine the impact of different types of flexibilities provided to working women engineers on their job satisfaction. In the light of this, four hypotheses were developed. In hypothesis 1 it was assumed that the more temporal flexibility would be provided to women employees the more they will get satisfied with their job. The increased work load responsible in the negligence of family and personal life, and in lowering job satisfaction [8]. It was assumed if flexibility in working hours and in time of arrival and departure would be provided to women it would make them feel cared. This will increase job satisfaction of employees and results in better employee performance.

In hypothesis 2 it was assumed that the more the operation flexibility would be provided to women employees the more they get job satisfaction. It was assumed that if women employees will not be unnecessarily monitored on how they are doing their work and let them do their tasks the way they want to, it would lead to personal satisfaction. Moreover, they will become satisfied with their job as well.

In hypothesis 3 it was assumed that the more the supervisors will be supporting the more women employees get satisfied with their job. If the supervisor support two-way communication and build a good relationship with his employees, the employees will more likely to become more satisfied with their job. As they can discuss about their home problem and office problems easily with their supervisors. On the other hand, if the supervisor will not

be supporting the employee's problems will not be catered and it will lower employee's job satisfaction.

In hypothesis 4 it was assumed the lesser the permeability would be adopted the more women employees will be satisfied with their job. The borders between home and work are if stronger they won't allow employees while being in one domain to stay in connection with the other domain. This way they would be able to fully concentrate on one domain in which they would be present at that time. The other domain would not interrupt them.

CHAPTER 3: METHODOLOGY

Research Design

This methodology of this research aims to investigate the relationship between organizational aspects; operational flexibility, temporal flexibility, supportive supervision and permeability on the job satisfaction of women that are employed in software industry of Pakistan. The research was descriptive and explanatory in nature, and the technique used was quantitative research. A survey consisting of questionnaires was used to get the data and first-hand results were got to meet the study objectives.

Targeted Population

The target population for this research consisted of women working in the Pakistan software industry. These women were computer engineers/ software engineers/ telecom engineers. This study examined their response towards operational flexibility, temporal flexibility, supportive supervision and permeability, and what is the effect of these four aspects on their job satisfaction.

Sample Size

Power and Precision Software was used to calculate the sample size for this study. The value of statistical significance (α) was set to 5%. The population correlation (γ) value set was 0.25, it was retrieved from prior studies [21]. The determined sample size was 160 with an accuracy of 90% level of confidence. The report of sample size calculated in Power and Precision is attached in appendices. 232 responses in total were received and out of them only 198 were found useful.

Sampling Technique

A combination of cluster and stratified sampling technique was used in this study. Three big clusters were made; Islamabad, Rawalpindi and Wah Cantt. In which startas were made (telecom and software industry) from which data was collected. The sample for this study was restricted to women who were part time employed or full time employed. Self-employed women were not considered. The reason for not considering self-employed women was to avoid biasness and get reliable data from respondents who were working under somebody. Some of the questionnaires were got filled on spot while most were returned after 4 to 5 working days.

Data Collection and Measures Used

The collection of data was paper-based questionnaire/ survey, that consists of 26 closed end questions was used from the sample population of this study. Moreover, online google form was also used to get responses. Respondents were software/ IT/ computer engineer women working in software organizations. The questionnaire had two parts in it. The first part was demographic part and in the second part there were questions related to each variable.

Respondents Demographic Information

The demographic part of the questionnaire survey was used to get the information about the respondent. They were not asked to provide their names and contact information on the questionnaire/ survey to maintain the confidentiality. The information in this section included age, marital status, number of children, employment type (full time or part time employment) and number of working hours per week.

Respondents Contextual Information

In the second part the respondents reported the degree of operational flexibility, supportive supervision, temporal flexibility and permeability at their own workplace. The questionnaire/ survey had 5 items of operational flexibility, 5 items of temporal flexibility, 3 items of supportive supervision, 12 items of permeability among which only first 6 (that are related to permeability at work place) were used in this study and 7 items of job satisfaction, a total of 26 questions. All the selected questions that were asked were closed ended. These questions that helped in testing the proposed hypothesis are based on items proposed by Campbell Clark [21], [41]. Five-point Likert scale as shown in the table 1 below was used to get the rating of each question. The sample population were asked to rate each item to the degree to which they disagree or agree with that item. The first part was conducted to know who the responder is, and the second part was conducted to get the responses for the variables of this study. Responses that indicated that the responder is unemployed was not considered. The reason for not considering them was to have reliable data coming from respondents who were currently working.

Table 1: Scale used in the questionnaire

Options	Class
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

Data Analysis

The data was analyzed using Statistical Package for Social Sciences (SPSS ver. 24). Firstly, it was made sure no incomplete data or wrong/ invalid entry is made in the data. different tests were applied on data to make sure data is valid. EFA was run to check the validity and reliability of the data. Then different tests were performed on data to check the connection/ bond/ relation between dependent and independent variables of this study.

Firstly, descriptive statistics were found out, which showed the mean and standard deviation values of the data. This test shows how spread out the values of variables are from mean.

Then reliability analysis was conducted. This test showed how strong items of a variable are correlated to each other. There were 5 items of Temporal flexibility and 5 items of operational flexibility but TF3 and OF1 were deleted to get reliable results.

After that validity analysis was done to check the validity of questionnaire. Exploratory Factor Analysis (EFA) was performed on SPSS to find out the validity of the questionnaire. It's a statistical procedure in which relationship between observed variables and underlying factors is observed. Factor loading, and KMO & Bartlett's Test of Sphericity were also observed. JS6 at this phase was deleted (not included) because of invalid factor loading.

Then normality test was performed to check how much spread out the data is and if there were any outliers in the data. Different types of graphs such as histogram, stem and leaf plot, box whisker plot (also known as boxplot), normal Q-Q plot and detrended Q-Q plot helped in finding out outliers in the data. By deleting those outliers, the data was normalized.

After that correlation was measured. It is used to measure the correlation between variables. Moreover, it also determines the reliance of variables on one another. Its values range between -1 and +1. +1 shows a positive direct relationship between the selected variables. -1

shows an inverse relationship between the selected variables. Whereas 0 shows that there is no relationship between the selected variables.

After that, regression analysis was performed. It tells the relationship between the independent and the dependent variables and further confirm the results. At this phase simple linear and multiple, both were performed on the data.

CHAPTER 4: RESULTS

This section includes the findings and outcomes of the study that are got by analyzing the data which was collected from the targeted population of women working in software organizations in Islamabad, Rawalpindi and Wah Cantt, Pakistan.

Descriptive Statistics

Descriptive statistics of this study are shown in table 2. It contains means and standard deviations of the variables which were selected in this study and two demographic variables as well that are age and number of working hours. Standard deviation for all variables is between 0.6 - 1.07, depicting convergent view. The value of standard deviation tells how spread out are the values of variables from the average/ mean. Table 2 shows that respondents are neither fully satisfied nor fully dissatisfied with their jobs. The results are also in line with previously conducted studies [14], [21], [41]. Mean of age is 27.37 and standard deviation is 5.6. Mean of number of working hours is 41.4 and standard deviation is 6.87.

Table 2: Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Temporal Flexibility	198	2.8712	1.07720	.180	.173	-.760	.344
Supportive Supervision	198	3.3636	1.06801	-.352	.173	-.459	.344
Operational Flexibility	198	3.2891	.85722	-.083	.173	-.050	.344
Permeability	198	2.9057	.84790	-.205	.173	-.583	.344
Job Satisfaction	198	3.5916	.61086	-.320	.173	.333	.344
Age	198	27.37	5.607				
No of Working Hours	198	41.462	6.8797				
Valid N (listwise)	198						

Table 2 also contains the skewness and kurtosis values of the data. According to Andy Field the values of skewness and kurtosis should be less than 1.96 when standard error is divided by

statistical value and when sample size is not more than 200 [44]. Furthermore, the values of skewness and kurtosis should not exceed 2.58 when standard error is divided by statistical value and when sample size is more than 200. As in the table 2 we can see that skewness and kurtosis value of each variable is not more than 1.96.

Table 3 is the frequency table of employment type. It shows among 198 responses received, 181 respondents work full time and 2 respondents were doing internship and their number of working hours per week were same as of the full-time working employees while the remaining 15 respondents work part time.

Table 3: Frequency Table of Employment Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Full Time Employment	181	91.4	91.4	91.4
	Part Time Employment	15	7.6	7.6	99.0
	Internship	2	1	1	100
	Total	198	100.0	100.0	

Table 4 is the frequency table of marital status. It shows among 198 responses received, 140 respondents are single (that is 70.7%), 52 are married (that is 26.3%), and the remaining 6 lies in another category (that is 3%).

Table 4: Frequency Table of Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	140	70.7	70.7	70.7
	Married	52	26.3	26.3	97.0
	Widow	2	1.0	1.0	98.0
	Separated	2	1.0	1.0	99.0
	Divorced	1	.5	.5	99.5
	Engaged	1	.5	.5	100.0
	Total	198	100.0	100.0	

Table 5 is the frequency table of number of children. It shows among 198 responses received, 158 respondents have no children (that is 79.8%), 24 respondents have 1 child (that is 12.1%), 10 respondents have 2 children (that is 5.1%), 4 respondents have 3 children (that is 2%) and 2 respondents have 4 children (that is 1%).

Table 5: Frequency Table of Number of Children

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid N/A	158	79.8	79.8	79.8
1	24	12.1	12.1	91.9
2	10	5.1	5.1	97.0
3	4	2.0	2.0	99.0
4	2	1.0	1.0	100.0
Total	198	100.0	100.0	

Reliability

The consistency of the data is measured through reliability test. Cronbach's Alpha is used as reliability's measure. It shows how strong items of a variable are correlated to each other. The acceptable statistical value for Cronbach's Alpha is 0.7 – 0.9 [45].

Table 6 shows the reliability statistics of all the variables. There were 5 items of temporal flexibility [21] but TF3 was deleted to get reliable results. The value of Cronbach's Alpha for 4 items is 0.78. That means the questions used for this variable are highly reliable.

Table 6: Reliability Statistics

Variable	Cronbach's Alpha	Number of Items
Temporal Flexibility	.786	4
Supportive Supervision	.890	3
Operational Flexibility	.768	4
Permeability	.807	6
Job Satisfaction	.711	7

Table 6 also shows the reliability statistics of supportive supervision. There were 3 items of supportive supervision [21]. The value of Cronbach's Alpha for these 3 items is 0.89. That means the questions used for this variable are highly reliable. Table 6 shows the reliability statistics of operational flexibility. There were 5 items of operational flexibility [21] but OF1 was deleted to get reliable results. The value of Cronbach's Alpha for these 4 items is 0.76. That means the questions used for this variable are highly reliable. Table 6 shows the reliability statistics of permeability. There were 6 items of permeability [41]. The value of Cronbach's Alpha for these 6 items is 0.80. That means the questions used for this variable are highly reliable. Table 6 also shows the reliability statistics of job satisfaction. There were 7 items of job satisfaction [21]. The value of Cronbach's Alpha for these 7 items is 0.71. That means the questions used for this variable are highly reliable.

Validity Test

Exploratory Factor Analysis (EFA) was performed on SPSS to find out the validity of the questionnaire. It's a statistical procedure in which relationship between selected variables and underlying factors is observed [46].

Before performing EFA, the suitability of sample size was assessed through KMO (Kaiser Meyer Olkin) and strength of relationship between variables was tested through Bartlett test. If the value of KMO is greater than 0.5 then the sample size is sufficient, the sample size is mediocre if KMO value lies between 0.5 – 0.7 then, sample size is good if value of KMO lies between 0.7 – 0.8, sample size is great if value of KMO lies between 0.8 – 0.9 and sample size is superb if value of KMO lies between 0.9 and above [46], [47]. Strength of relationship between variables was tested through Bartlett test. This test provides a chi-square value that should be significant. If the value is not more than 0.05 that means the responded data is normal and good for further analysis [47].

Values of KMO and Bartlett's test of sphericity is shown in table 7. The KMO value of temporal flexibility, supportive supervision and operational flexibility lies in the range of 0.7 to 0.8 and KMO value of permeability and job satisfaction lies in the range of 0.8 to 0.9. That indicates the sample size is good or we can say great.

Table 7: Results of KMO and Bartlett's Test of Sphericity

<i>Variable</i>	<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</i>	<i>Bartlett's Test of Sphericity</i>		
		Chi-Square	df	Sig.
<i>Temporal Flexibility</i>	0.729	235.74	6	0.000
<i>Supportive Supervision</i>	0.748	327.04	3	0.000
<i>Operational Flexibility</i>	0.763	188.67	6	0.000
<i>Permeability</i>	0.832	284.24	15	0.000
<i>Job Satisfaction</i>	0.860	501.72	15	0.000

Factor loading of each item was calculated and it was more than 0.4. Factor loading of job satisfaction as shown in table 8 shows that factor loading of item JS1, JS2, JS3, JS4, JS5 and JS7 are greater than 0.4. However, factor loading of JS6 (0.012) is less than 0.4 so it is deleted from the set of items to make factor loading acceptable as shown in table 9.

Table 8: Initial Factor Loading of Job Satisfaction

Rotated Component Matrix		
	Component	
	1	2
JS1	.533	.503
JS2	.600	.463
JS3	.822	.158
JS4	.862	.110
JS5	.524	.601
JS6	.012	-.928
JS7	.825	.157

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 3 iterations.

Table 9: Corrected Factor Loading of Job Satisfaction

Component Matrix	
	Component
	1
JS1	.707
JS2	.751
JS3	.805
JS4	.821
JS5	.735
JS7	.806

Extraction Method: Principal
Component Analysis.

Table attached in appendices show the factor loading of each variable's items. Factor loading of each of the selected item is more than 0.4. Factor loading of these items ranges between 0.6 – 0.9 which shows the acceptable value. TF3 and OF1 were not included in it, as they were deleted from the data set to get reliable results. In addition, JS6 was also not included because of invalid factor loading.

Average Variance Extracted (AVE) was checked as well. AVE values that are above 0.5 are considered acceptable. Whereas, value that are above 0.7 are considered to be very good. Table 10 shows the AVE values of each variable which are greater than 0.5 and hence convergence validity of the model is verified.

Table 10: AVE of the model

Communalities		
	Initial	Extraction
Temporal Flexibility	1.000	.731
Supportive Supervision	1.000	.650
Operational Flexibility	1.000	.549
Permeability	1.000	.930
JS	1.000	.701

Extraction Method: Principal Component
Analysis.

Normality

Normality test is performed to check how much spread out the data is and if there are any outliers in the data [44]. Different types of graphs such as histogram, stem and leaf plot, box whisker plot (also known as boxplot), normal Q-Q plot and detrended Q-Q plot helped in finding out outliers in the data. By deleting those outliers, the data was normalized.

Figure 1 is the graphical representation of temporal flexibility. The histogram plots values on horizontal axis, and the bar shows how many times in a data set a certain value occurred [44]. Through histograms it was very easy to detect the outliers and then these outliers were deleted from the data set to get a normal data. In normality test histogram of all independent and dependent variables was observed.

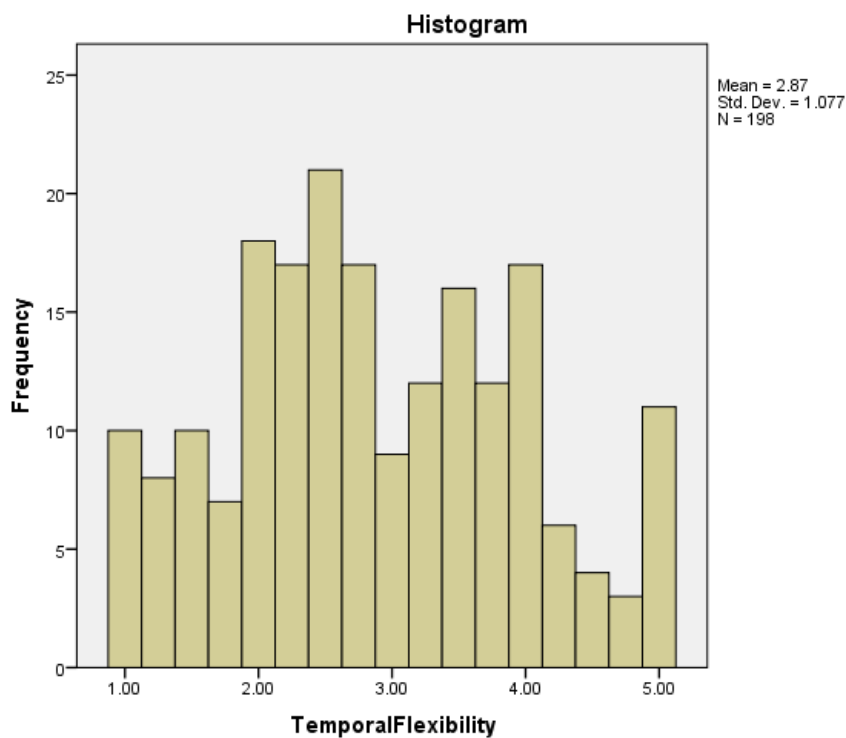


Figure 1: Histogram of Temporal Flexibility

Boxplot is also a graphical representation of data that show the range of values, the upper and lower quartile and the median [44]. Boxplots are well known for representing summary of the data. They represent the distribution of data whether its symmetrical or not. If the length of whiskers are same (top range and bottom range) then there is symmetrical distribution. Box

whisker plot of permeability is shown in figure 2. It can be seen through figure that length of upper quartile and lower quartile is almost the same. That shows the symmetrical distribution.

Any outliers detected in histogram can easily be further pointed in boxplots.

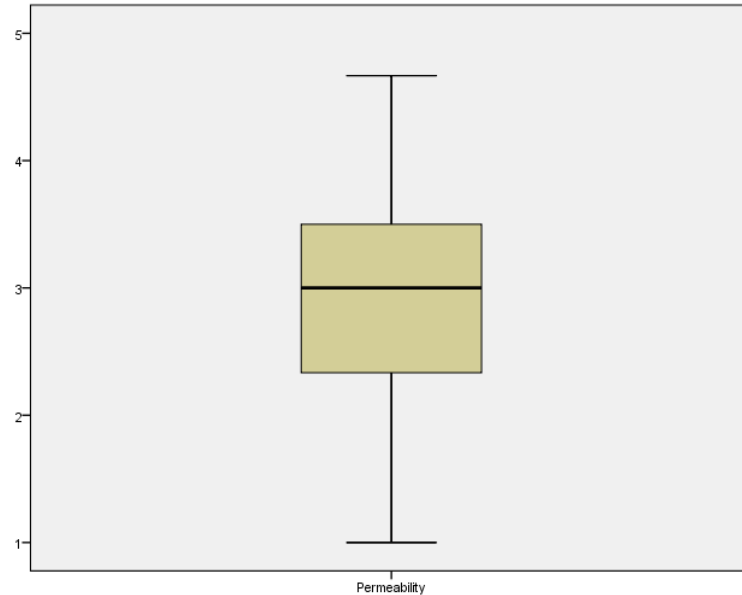


Figure 2: Box Whisker Plot of Permeability

Stem and leaf plot show the frequency of occurrence of a certain value. Stem and leaf plots are alternative of histograms in which data distribution in form of integers (numbers) can be gotten.

Figure 3 is the stem and leaf plot of operational flexibility. This figure shows that most of the responses belongs to middle group.

OperationalFlexibility Stem-and-Leaf Plot

Frequency	Stem &	Leaf
4.00	1 .	0000
3.00	1 .	577
20.00	2 .	00000002222222222222
34.00	2 .	555555555555555555557777777777777777
45.00	3 .	000000000000000000000000000000000022222222222222
42.00	3 .	5555555555555555555577777777777777777777777777777777
31.00	4 .	00000000000000000000000000000000002222222222
7.00	4 .	5555557
12.00	5 .	0000000000000

Stem width: 1.00
Each leaf: 1 case(s)

Figure 3: Stem and Leaf Plot of Operational Flexibility

In normality test box whisker plot, histogram, Q-Q plot and stem and leaf plot of all independent and dependent variables were observed. That help in detecting and deleting the outliers in the data set and perform rest of the tests on normalized data. some of the figures of normality test are attached in appendices.

Correlation

Correlation is used to measure the association between the selected variables. Moreover, it also determines the reliance of variables on one another. Its values range between -1 and +1. +1 shows a direct relationship between the variables. -1 shows an inverse relationship between the variables. Whereas 0 means that there is no relationship between the selected variables. There is a weak correlation if Correlation Coefficient's values lies between 0.00 to 0.3, a moderate correlation if Correlation Coefficient's values lies between 0.3 to 0.6 and a strong correlation if Correlation Coefficient's values lies between 0.6 to 0.9.

Table 11: Correlation Table

	Mean	Std. Deviation	Temporal Flexibility	Supportive Supervision	Operational Flexibility	Permeability	Job Satisfaction
Temporal Flexibility	2.8712	1.07720	<i>.786</i>				
Supportive Supervision	3.3636	1.06801	.569**	<i>.890</i>			
Operational Flexibility	3.2891	.85722	.460**	.428**	<i>.768</i>		
Permeability	2.9057	.84790	.195**	.046	-.007	<i>.807</i>	
Job Satisfaction	3.5916	.61086	.387**	.437**	.443**	-.189**	<i>.711</i>

** . Correlation is significant at the 0.01 level (1-tailed).

Cronbach's Alpha is reported on diagonal in italic.

The relationship between the variables was found through Pearson's Correlation. In table 11 it can be seen there is a moderate positive correlation between temporal flexibility and supportive

supervision ($\gamma = 0.569$; $\rho < 0.01$). Operational flexibility and temporal flexibility ($\gamma = 0.460$; $\rho < 0.01$) and operational flexibility and supportive supervision ($\gamma = 0.428$; $\rho < 0.01$) are also moderately positively correlated. Permeability and temporal flexibility are weakly positive correlated ($\gamma = 0.195$; $\rho < 0.01$), permeability and supportive supervision has very weak positive correlation ($\gamma = 0.046$; $\rho > 0.05$) and permeability and operational flexibility has very weak negative correlation ($\gamma = -0.007$; $\rho > 0.05$). Correlation between job satisfaction (the dependent variable) and temporal flexibility (the independent variable) is moderate positive correlation ($\gamma = 0.387$; $\rho < 0.01$) which proves the hypothesis H1 that is; the more the temporal flexibility in workplace the more women engineers will be satisfied with their job. Correlation between job satisfaction and supportive supervision (the independent variable) is moderate positive correlation ($\gamma = 0.437$; $\rho < 0.01$) which proves the hypothesis H3 that is; the more support women engineers get from supervisors the more women will be satisfied with their job. Correlation between operational flexibility (the independent variable) and job satisfaction is also moderate positive correlation ($\gamma = 0.443$; $\rho < 0.01$) which proves the hypothesis H2 that is; the more the operational flexibility in the workplace the more women engineers will be satisfied with their job. However, the correlation between permeability (the independent variable) and job satisfaction is weak negative correlation ($\gamma = -0.189$; $\rho < 0.01$) which proves the hypothesis H4 that is; the lesser the permeability the more women engineers will be satisfied with their job. In the table 15 it can be seen that job satisfaction has most significant association with supportive supervision and operational flexibility among all the independent variables. Regression

Linear Regression

Regression analysis was done to find out the relationship between dependent and independent variables, and to further confirm the results [44]. Model summary of temporal flexibility is

shown in table 16. Value of adjusted R square is 0.224, which means 22.4% of job satisfaction is because of temporal flexibility. It proves hypothesis H1 that is; the more the temporal flexibility in workplace the more women engineers will be satisfied with their job. It also shows the significance value ρ is less than 0.05, which means H1 is accepted that there is a significance positive relation between temporal flexibility and job satisfaction. The value of beta which is 0.339, which also shows a positive relation between temporal flexibility and job satisfaction.

Table 12: Simple Linear Regression

Variable	Constant	β	Adjusted R²	Sig.
Temporal Flexibility	2.789	0.339	0.224	0.000
Supportive Supervision	2.559	0.358	0.246	0.000
Operational Flexibility	2.429	0.406	0.203	0.000
Permeability	4.201	-0.150	0.023	0.019

Model summary of Supportive supervision is also shown in table 12. Value of adjusted R square is 0.246, which means 24.6% of job satisfaction is because of supportive supervision. It proves hypothesis H3 that is; the more support women engineers get from supervisors the more they will be satisfied with their job. Table 16 also shows that the significance value ρ is less than 0.05, which means H3 is accepted that significant positive relation exists between supportive supervision and job satisfaction. The value of beta which is 0.358, which also shows a positive relation between supportive supervision and job satisfaction.

Model summary of operational flexibility is also shown in table 12. Value of adjusted R square was found out to be 0.203, which means 20.3% of job satisfaction is because of operational flexibility. It proves hypothesis H2 that is; the more the operational flexibility in the workplace the more women engineers will be satisfied with their job. Table 12 also shows the significance value ρ is less than 0.05, which means H2 is accepted that significant positive

relation exists between operational flexibility and job satisfaction. The value of beta which is 0.406, which also shows a positive relation between operational flexibility and job satisfaction.

Model summary of permeability is also shown in table 12. Value of adjusted R square was found to be 0.023, which means 2.3% variation in job satisfaction can be because of permeability. Table 12 shows the significance value ρ (0.019) is less than 0.05, which means H4 is accepted. The value of beta which is -0.150, which shows a negative relation between permeability and job satisfaction. That means hypothesis H4 proves to be correct that is; the lesser the permeability the more women engineers will be satisfied with their job.

Multiple Regression

Result of multiple regression analysis of complete model (all 5 variables) is shown in table 13. This table provides the summary of complete model. Blow table shows value of R is 0.575 and value of adjusted R square is 0.317, which means 31.7% of job satisfaction is because of flexibility (temporal and operational) and supportive supervision. It proves the hypothesis H1 that is; the more the temporal flexibility in workplace the more women engineers will be satisfied with their job, H2 that is; the more the operational flexibility in the workplace the more women engineers will be satisfied with their job, H3 that is; The more support women engineers get form supervisors the more they will be satisfied with their job and H4 that is; the lesser the permeability the more women engineers will be satisfied with their job. By providing flexibility to employees and sufficient support provided from supervisor employee's job satisfaction can be increased. R square value lies between 0 – 1 and it tells how regression line fit in a set of variables. In addition, adjusted R square value shows 31.7% of the organizational aspects (temporal and operational flexibility, supportive supervision) affects job satisfaction of employees, there must be other aspects and organizational factors that cause affect upon the job satisfaction of employees.

Table 13: Multiple Regression Test of Complete Model

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.575 ^a	.331	.317	.50495

a. Predictors: (Constant), Permeability, Operational Flexibility, Supportive Supervision, Temporal Flexibility

Table 14: ANOVA table of complete model

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.300	4	6.075	23.826	.000 ^b
	Residual	49.211	193	.255		
	Total	73.511	197			

a. Dependent Variable: Job Satisfaction

b. Predictors: (Constant), Permeability, Operational Flexibility, Supportive Supervision Temporal Flexibility

Table 15: Coefficient table of complete model

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	2.729	.197		13.826	.000
	Temporal Flexibility	.103	.044	.181	2.361	.019
	Supportive Supervision	.134	.042	.234	3.170	.002
	Operational Flexibility	.184	.049	.258	3.772	.000
	Permeability	-.168	.044	-.233	-3.844	.000

a. Dependent Variable: Job Satisfaction

Table 14 shows the significance value ρ is less than 0.05, which means there exists a significance relation present between the predictors and job satisfaction. The values of beta are shown in table 15 that are 0.103 for temporal flexibility, 0.134 for supportive supervision, 0.184

for operational flexibility and -0.168 for permeability. It shows that operational flexibility, temporal flexibility and supportive supervision has a positive relationship with job satisfaction. Whereas, temporal flexibility has a negative relationship with job satisfaction.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

Conclusion

The main objective of conducting this study was to investigate the effect of flexibility (operational and temporal), support provided by the supervisor and permeability on job satisfaction of females working in the software/ telecom industry of Pakistan. The results show that operational flexibility, temporal flexibility and supportive supervision has a positive direct relation with job satisfaction. However, permeability has a negative reverse relation with job satisfaction.

When multiple regression analysis of complete model was conducted, the value of adjusted R square turned out to be 0.317, which showed that 31.7% change in job satisfaction is because of independent variables of this study. Job satisfaction of working women is only 31.7% dependent on these aspects and there must of some other aspects that can be adopted to increase job satisfaction of employees. 22.4% of job satisfaction is because of temporal flexibility and p value is less than 0.05, so hypothesis H1 turned out to be correct that there exists a significance positive relation between temporal flexibility and job satisfaction. 24.6% of job satisfaction is because of supportive supervision and p value is less than 0.05, so hypothesis H3 turned out to be correct that there exists a significance positive relation between supportive supervision and job satisfaction. 20.3% of job satisfaction is because of operational flexibility and p value is less than 0.05, so hypothesis H2 turned out to be correct that there exists a significance positive relation between operational flexibility and job satisfaction. 2.3% change in job satisfaction can be because of permeability and p value is less than 0.05, so

hypothesis H4 turned out to be correct that there exists a significance negative relation between permeability and job satisfaction.

Value of correlation for job satisfaction and operational flexibility is ($\gamma = 0.443$) which was greatest value among correlation of job satisfaction with other variables. This showed relationship between job satisfaction and operational flexibility was strongest among all the variables. However, Correlation value of job satisfaction and permeability is $\gamma = -0.189$, which showed relationship between job satisfaction and permeability was weak and negative, that means if there would be less permeability at work places the more will be women engineers satisfied with their jobs.

So, this proves that blurring between borders cannot contribute in job satisfaction of working women. However, providing women with flexible work schedules, flexibility in working hours and support provided by supervisors can increase job satisfaction of women.

Recommendations

- From the findings of this research it is evident that three of the independent variables that are operational flexibility, temporal flexibility and supportive supervision have influence on job satisfaction of working women. While one independent variable that is permeability has negative effect on job satisfaction of women. It is recommended that software industry of Pakistan should provide more flexibility in terms of time and work-related flexibility so that employees can get satisfied from their job.
- If employees will be provided the flexibility to decide how they want to work that would be easy for them to manage their work loads and their home responsibilities as well. If they would be given freedom to work with minimum supervision that would bring more satisfaction in them and all these things contribute towards job satisfaction of employees. When they will be satisfied with their routine, their tasks and their job this

will enhance their performance which will contribute towards the overall performance of the organization.

- If enough support will be provided by the supervisors to employees, they will be more open to them about sharing/ discussing their problems/ family issues or any sort of work-related issue as well. If the supervisor will not be supportive the employee will not find the encourage to share his family related or office related problem with the supervisor. The stress that an employee is going through whether it's because of office or home but it will remain inside the employee. That in result will build dissatisfaction in employee, he won't be able to complete his goals on time and his performance will start falling/ reducing and that would affect the overall performance of the organization.
- If supervisors are encouraged to attend trainings related to communication quality, effective leadership or supportive supervision etc. that will enhance their supervisory skills and in result they can deal with employees in a better way. Such trainings also encourage supervisors to build a caring environment in their offices/ organization that plays a great role in psychological wellbeing of employees. Moreover, the supervisors always must build a two communication with their employees so that employees can also have a chance to voice their thoughts. Supportive supervisor respects the needs of his employees. Through discussion he understands about the family responsibilities of employees and then help him attain a balance between the family life and work.

Limitations and Future research

The main limitation in this research was time. As the total time to complete this research study was eight months due to which the data was collected from limited cities of Pakistan (Islamabad, Rawalpindi and Wah Cantt). In future there is a room for other researchers to collect the data from different cities of Pakistan and get to know the effect of organizational

aspects on job satisfaction of employees in different cities of Pakistan. Moreover, this study is limited to software industry of Pakistan. In future same model can be used on other industries such as textile or automobile to explore the relation between organizational aspects and job satisfaction in those settings.

Another major limitation in this study is that the data is collected randomly from a sample population of this study that has no restriction on age group, being single or married, employment type and number of working hours. If these restrictions are applied the results must be different and that would depict a different impact on level of employee's job satisfaction.

Educational level and designation are also not catered in this study. If data will be collected based on educational level or employee's designation, the job satisfaction level will be different. Employees working at higher designation might found to be more satisfied with their jobs or it is also possible that higher designation employees might not be satisfied with their jobs because they might experience more work load. This can be further investigated in future whether educational level and designation of employees effect their level of job satisfaction or not.

Moreover, this study only focused on women working in software industry of Pakistan, in future this research can also be undertaken on men working in software industry of Pakistan. Whether men feel satisfied with their job if they are provided with operational flexibility, temporal flexibility, supportive supervision and permeability at their work places. As men also have work load as well as home responsibilities and it is also important for them to balance their home and work responsibilities.

As this study only catered women, in future a comparison-based study can also be conducted, in which job satisfaction of men and women can be compared. As they both have work and home responsibilities and there must be a perfect balance between their

responsibilities to avoid any sort of conflicts. So, this research if conducted in future will help in getting the idea that keeping the borders strong for both (home and office) domains effects more on the women's job satisfaction or more on the men's job satisfaction.

In future this research can also be further used to determine the job satisfaction level in disabled employees. As their level of job satisfaction could result different from other employees. This study also used stratified random sampling technique but in future other sampling techniques can also be used to make the finding more diverse. The same theoretical model can be used to conduct the same study in different regions and then the results can be compared.

REFERENCES

- [1] V. Srinivasan, L. S. Murty, and M. Nakra, "Career persistence of women software professionals in India," *Gend. Manag. Int. J.*, vol. 28, no. 4, pp. 210–227, Jun. 2013.
- [2] M. J. Albion, "A Measure of Attitudes Towards Flexible Work Options," *Aust. J. Manag.*, vol. 29, no. 2, pp. 275–294, Dec. 2004.
- [3] S. C. Clark, "Work/Family Border Theory: A New Theory of Work/Family Balance," *Hum. Relat.*, vol. 53, no. 6, pp. 747–770, Jun. 2000.
- [4] M. Begum Sadaquat and Q. A. Sheikh, "Employment situation of women in Pakistan," *Int. J. Soc. Econ.*, vol. 38, no. 2, pp. 98–113, Jan. 2011.
- [5] L. Formánková and A. Křížková, "Flexibility trap – the effects of flexible working on the position of female professionals and managers within a corporate environment," *Gend. Manag. Int. J.*, vol. 30, no. 3, pp. 225–238, May 2015.
- [6] S. Shagvaliyeva and R. Yazdanifard, "Impact of Flexible Working Hours on Work-Life Balance," *Am. J. Ind. Bus. Manag.*, vol. 04, no. 01, pp. 20–23, 2014.
- [7] T. O'Brien and H. Hayden, "Flexible work practices and the LIS sector: balancing the needs of work and life?," *Libr. Manag.*, vol. 29, no. 3, pp. 199–228, Feb. 2008.
- [8] Abd. R. Ahmad, M. T. M. Idris, and M. H. Hashim, "A Study of Flexible Working Hours and Motivation," *Asian Soc. Sci.*, vol. 9, no. 3, Feb. 2013.
- [9] L. A. McNall, A. D. Masuda, and J. M. Nicklin, "Flexible Work Arrangements, Job Satisfaction, and Turnover Intentions: The Mediating Role of Work-to-Family Enrichment," *J. Psychol.*, vol. 144, no. 1, pp. 61–81, Nov. 2009.
- [10] T. D. Allen, "Family-Supportive Work Environments: The Role of Organizational Perceptions," *J. Vocat. Behav.*, vol. 58, no. 3, pp. 414–435, Jun. 2001.
- [11] F. Cao, "Exploring the relations among availability of temporal flexibility at work, work-to-family conflict, and job satisfaction." Doctoral Dissertation, Southern Illinois University Carbondale, 2005.
- [12] P. Spector, *Job Satisfaction: Application, Assessment, Causes, and Consequences*. 2455 Teller Road, Thousand Oaks California 91320 United States: SAGE Publications, Inc., 1997.
- [13] S. Linz and A. Semykina, "Job satisfaction, expectations, and gender: beyond the European Union," *Int. J. Manpow.*, vol. 34, no. 6, pp. 584–615, Sep. 2013.
- [14] S. Dabke, O. Salem, A. Genaidy, and N. Daraiseh, "Job Satisfaction of Women in Construction Trades," *J. Constr. Eng. Manag.*, vol. 134, no. 3, pp. 205–216, Mar. 2008.
- [15] M. Koshal, A. K. Gupta, and R. Koshal, "Women in management: a Malaysian perspective," *Women Manag. Rev.*, vol. 13, no. 1, pp. 11–18, Feb. 1998.
- [16] M. Zakaria and B. A. Fida, "Effects of globalization on women in Pakistan," *Humanomics*, vol. 28, no. 3, pp. 180–186, Aug. 2012.
- [17] S. Saha and S. P. Kumar, "Organizational culture as a moderator between affective commitment and job satisfaction: Empirical evidence from Indian public sector enterprises," *Int. J. Public Sect. Manag.*, vol. 31, no. 2, pp. 184–206, Mar. 2018.
- [18] L. Huey Yiing and K. Zaman Bin Ahmad, "The moderating effects of organizational culture on the relationships between leadership behaviour and organizational commitment and between organizational commitment and job satisfaction and performance," *Leadersh. Organ. Dev. J.*, vol. 30, no. 1, pp. 53–86, Feb. 2009.
- [19] S. Su, K. Baird, and B. Blair, "Employee organizational commitment in the Australian public sector," *Int. J. Hum. Resour. Manag.*, vol. 24, no. 2, pp. 243–264, Jan. 2013.
- [20] E. J. Wallach, "Individuals and organizations: The cultural match.," *Train. Dev. J.*, vol. 37, no. 2, pp. 28–36, 1983.
- [21] S. C. Clark, "Work Cultures and Work/Family Balance," *J. Vocat. Behav.*, vol. 58, no. 3, pp. 348–365, Jun. 2001.

- [22] S. Tietze and G. Musson, "When 'Work' Meets 'Home': Temporal flexibility as lived experience," *Time Soc.*, vol. 11, no. 2–3, pp. 315–334, Sep. 2002.
- [23] A. M. Rawashdeh, M. S. Almasarweh, and J. Jaber, "DO FLEXIBLE WORK ARRANGEMENTS AFFECT JOB SATISFACTION AND WORK-LIFE BALANCE IN JORDANIAN PRIVATE AIRLINES?," *Int. J. Inf. Bus. Manag.*, vol. 8, no. 3, pp. 172–185, 2016.
- [24] M. Rodriguez, "Flexible working patterns using annualised hours," *Work Study*, vol. 52, no. 3, pp. 145–149, Jun. 2003.
- [25] F. Moore, "Work-life balance: contrasting managers and workers in an MNC," *Empl. Relat.*, vol. 29, no. 4, pp. 385–399, Jul. 2007.
- [26] S. Daniel and S. Sonnentag, "Crossing the borders: the relationship between boundary management, work–family enrichment and job satisfaction," *Int. J. Hum. Resour. Manag.*, vol. 27, no. 4, pp. 407–426, Feb. 2016.
- [27] L. Leung, "Effects of ICT Connectedness, Permeability, Flexibility, and Negative Spillovers on Burnout and Job and Family Satisfaction," *Hum. Technol. Interdiscip. J. Hum. ICT Environ.*, vol. 7, no. 3, pp. 250–267, Nov. 2011.
- [28] G. A. Adesina-Uthman, "Women, Income and Job Satisfaction: The Women Speaks," *Nile J. Bus. Econ.*, vol. 3, no. 6, p. 3, Aug. 2017.
- [29] A. G. Subramaniam, B. J. Overton, and C. B. Maniam, "Flexible Working Arrangements, Work Life Balance and Women in Malaysia," *Int. J. Soc. Sci. Humanity*, vol. 5, no. 1, pp. 34–38, 2015.
- [30] B. B. Baltes, T. E. Briggs, J. W. Huff, J. A. Wright, and G. A. Neuman, "Flexible and compressed workweek schedules: A meta-analysis of their effects on work-related criteria," *J. Appl. Psychol.*, vol. 84, no. 4, pp. 496–513, 1999.
- [31] n. Yaghi, "Work flexibility and job satisfaction: The mediating role of employee empowerment." Dissertation, Georgia State University, 2016.
- [32] D. Wheatley and Z. Wu, "Work, inequality, and the dual career household." Working Papers in Economics, 2011.
- [33] B. S. Gariety and S. Shaffer, "Wage differentials associated with flextime," *Mon. Labor Rev.*, 2001.
- [34] N. Sánchez-Sánchez and A. Namkee, "Is job satisfaction of high-level managers and self-employed more pro-cyclical than normal employees?," *Int. J. Manpow.*, vol. 39, no. 6, pp. 800–819, Sep. 2018.
- [35] P. Su, "Essays on Supply Chain and Technology Management Under Global Competition and Stochastically Evolving Markets." ProQuest, 2000.
- [36] K. S. Kush and L. K. Stroh, "Flextime: Myth or reality?," *Bus. Horiz.*, vol. 37, no. 5, pp. 51–56, 1994.
- [37] Y. S. Lee, "The Effects of Flexible Work Hours and Company-provided Child Care on Wages of Mothers and Other Women." Doctoral dissertation, Columbia University, 2005.
- [38] S. Z. Sarwar, E. Mirza, N. Ehsan, K. Khan, and H. Hanif, "Determining the impact of age and LOS on job satisfaction: a case study of Pakistan automotive industry," *Int. J. Hum. Resour. Manag.*, vol. 24, no. 2, pp. 415–435, Jan. 2013.
- [39] L. M. Leslie, C. F. Manchester, T.-Y. Park, and S. A. Mehng, "Flexible Work Practices: A Source of Career Premiums or Penalties?," *Acad. Manage. J.*, vol. 55, no. 6, pp. 1407–1428, Dec. 2012.
- [40] O. Onuka *et al.*, "Use of Smartphone for Supportive Supervision in Nigeria," *iBusiness*, vol. 07, no. 02, pp. 75–80, 2015.
- [41] S. C. Clark, "Communicating across the work/home border," *Community Work Fam.*, vol. 5, no. 1, pp. 23–48, Apr. 2002.

- [42] P. M. Valcour and L. W. Hunter, "Technology, Organizations, and Work-Life Integration." Lawrence Erlbaum Associates Publishers., 2005.
- [43] J. (Min I. Loh, S. Lloyd D. Restubog, and C. Gallois, "Attitudinal outcomes of boundary permeability: A comparison of Australian and Singaporean employees," *Cross Cult. Manag. Int. J.*, vol. 17, no. 2, pp. 118–134, May 2010.
- [44] A. P. Field, *Discovering statistics using SPSS: and sex, drugs and rock "n" roll*, 3rd ed. Los Angeles: SAGE Publications, 2009.
- [45] S. Z. Sarwar, M. A. Choudhary, and Z. Latif, "The Impact of work-life connectivity on professional women: A case study of telecom industry," *Knowl. Manag. E-Learn.*, vol. 8, no. 2.
- [46] N. Ul Hadia, N. Abdullah, and I. Sentosa, "An Easy Approach to Exploratory Factor Analysis: Marketing Perspective," *J. Educ. Soc. Res.*, Jan. 2016.
- [47] L. L. Chan and N. Idris, "Validity and Reliability of The Instrument Using Exploratory Factor Analysis and Cronbach's alpha," *Int. J. Acad. Res. Bus. Soc. Sci.*, vol. 7, no. 10, p. Pages 400-410, Oct. 2017.

Appendices

Power and Precision Report

Blew attached is the report generated from Power and Precision Software while calculating the sample size for the study.

Group	Population Correlation	N of Cases	Standard Error	95% Lower	95% Upper
Population	0.25	160	0.08	0.10	0.39

Alpha= 0.050, Tails= 2

Power 90%

Summary - Power

For the given effect size (population $r = 0.25$, tested against a constant of 0.00), sample size (160), and alpha (0.050, 2-tailed), power is 0.901.

This means that 90% of studies would be expected to yield a significant effect, rejecting the null hypothesis that the population correlation is 0.00.

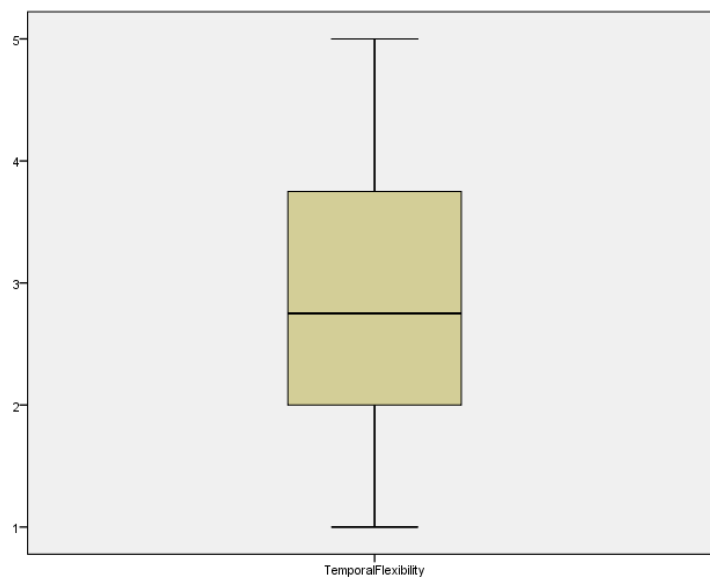
Variable	Item	Description	Loading
Temporal Flexibility	TF1	I am able to arrive and depart from work when I want.	0.823
	TF2	I am free to work the hours that are best for my schedule.	0.823
	TF4	It is OK with my employer if I work at home.	0.794
	TF5	I would easily take a day off or work, if I wanted to.	0.658
	Supportive Supervision	SS1	My supervisor understands my family demands.
SS2		My supervisor listens when I talk about my family.	0.906
SS3		My supervisor acknowledges that I have obligations as a family member.	0.905
Operational Flexibility	OF2	I can choose what I do at work.	0.727
	OF3	I am in charge of my activities at work.	0.785
	OF4	I determine where I place my time and energies at work.	0.819
	OF5	I have a say in what goes on at work.	0.725
	Permeability	P1	My family contacts me while I am at work.
P2		I have family-related items at my work place.	0.617
P3		I think about my family members when I am at work.	0.702
P4		I hear from my family while I am at work.	0.777
P5		I stop in the middle of my work to address a family concern.	0.763
P6		I take care of family business while I am at work.	0.681
Job Satisfaction		JS1	My activities at work are rewarding in and of themselves.
	JS2	I get a lot of satisfaction from carrying out my responsibilities at work.	0.751
	JS3	I find my activities at work to be personally meaningful.	0.805
	JS4	I love what I do at work.	0.821
	JS5	I am very satisfied with this job.	0.735
	JS7	I am generally satisfied with the kind of work I do in this job.	0.806

Normality Test Results

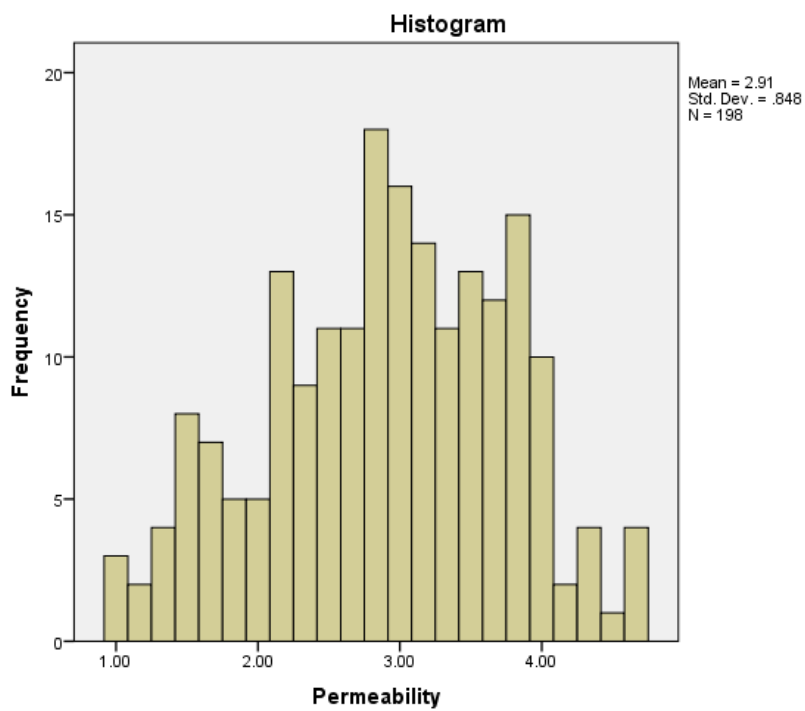
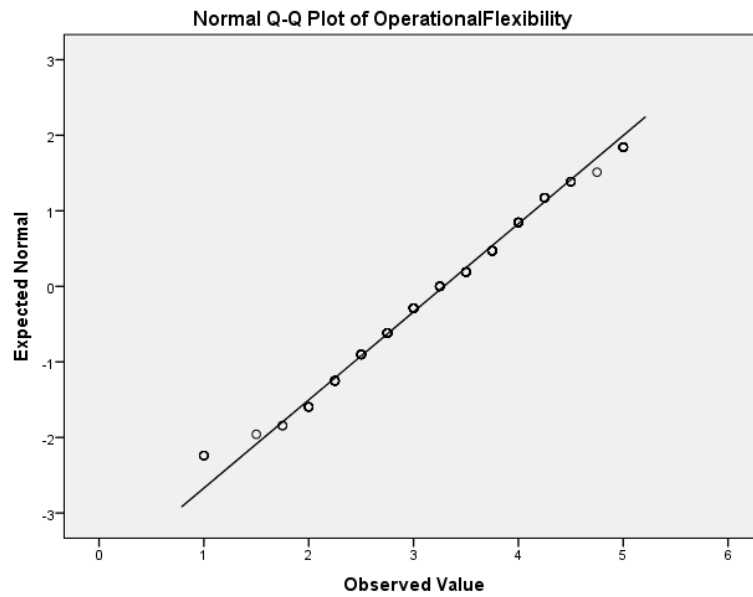
Frequency	Stem &	Leaf
18.00	1 .	000000000022222222
17.00	1 .	555555555577777777
35.00	2 .	0000000000000000002222222222222222
38.00	2 .	555555555555555555557777777777777777
21.00	3 .	0000000002222222222222
28.00	3 .	555555555555555577777777777777
23.00	4 .	000000000000000000222222
7.00	4 .	555777
11.00	5 .	0000000000

Stem width: 1.00
Each leaf: 1 case(s)

Stem and Leaf Plot of Temporal Flexibility



Box Plot of Temporal Flexibility



Linear Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.478 ^a	.228	.224	.67407

a. Predictors: (Constant), Temporal Flexibility

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	26.338	1	26.338	57.967	.000 ^b
Residual	89.056	196	.454		
Total	115.395	197			

a. Dependent Variable: JS

b. Predictors: (Constant), Temporal Flexibility

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.789	.137		20.404	.000
	Temporal Flexibility	.339	.045	.478	7.614	.000

a. Dependent Variable: JS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.500 ^a	.250	.246	.66461

a. Predictors: (Constant), Supportive Supervision

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	28.821	1	28.821	65.249	.000 ^b
Residual	86.574	196	.442		
Total	115.395	197			

a. Dependent Variable: JS

b. Predictors: (Constant), Supportive Supervision

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.559	.156		16.358	.000
	Supportive Supervision	.358	.044	.500	8.078	.000

a. Dependent Variable: JS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.455 ^a	.207	.203	.68345

a. Predictors: (Constant), Operational Flexibility

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.843	1	23.843	51.046	.000 ^b
	Residual	91.551	196	.467		
	Total	115.395	197			

a. Dependent Variable: JS

b. Predictors: (Constant), Operational Flexibility

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.429	.193		12.580	.000
	Operational Flexibility	.406	.057	.455	7.145	.000

a. Dependent Variable: JS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.167 ^a	.028	.023	.75657

a. Predictors: (Constant), Permeability

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.205	1	3.205	5.599	.019 ^b
	Residual	112.190	196	.572		
	Total	115.395	197			

a. Dependent Variable: JS

b. Predictors: (Constant), Permeability

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	4.201	.192		21.833	.000
	Permeability	-.150	.064	-.167	-2.366	.019

a. Dependent Variable: JS