

**IMPACT OF PERFORMANCE REWARDS ON  
EMPLOYEE TURNOVER IN THE SOFTWARE  
INDUSTRY OF PAKISTAN**

**by**

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**NATIONAL UNIVERSITY OF MODERN LANGUAGES**

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# **IMPACT OF PERFORMANCE REWARDS ON EMPLOYEE TURNOVER IN THE SOFTWARE INDUSTRY OF PAKISTAN**

**By**

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Candidate of **Master of Science in Software Engineering (MSSE)** at the National University of Modern Languages do hereby declare that the thesis **Impact of Performance Rewards on Employee Turnover in the Software Industry of Pakistan** submitted by me in partial fulfilment of MSSE degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution. I also understand that if evidence of plagiarism in my thesis/dissertation at any stage, even after the award of a degree, the work may be cancelled and the degree revoked.

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## **ABSTRACT**

### **Impact of Performance Rewards on Employee Turnover in the Software Industry of Pakistan**

Employee turnover crisis has its negative outcomes spreading almost every field. Software industry has been facing it for quite some years now. Many organizations take necessary measures to ensure employee retention, performance rewards are one of the measures. However, not all performance rewards tend to be as motivating as considered. The study emphasizes the use of performance rewards in the Software Industry of Pakistan. Moreover, it is being intended to study and identify the key rewards that give a real boost to the motivation of employees hence lowering the chances of employee turnover. The study uses survey (questionnaires) methodology to identify the types of awards being awarded to the employees, the psychological impact of performance rewards and the performance reward that can help the best in minimizing employees' turnover. The study has been conducted on the managers and employees having technical roles in the Pakistani software industries. The research has indicated that performance rewards, especially the monetary performance rewards play a vital role in minimizing the employees' turnover. In some cases, company swag, verbal appreciation and promotions also showed driving the inclination of an employee towards working in the organization. Furthermore, it has also come into knowledge that factors like reward frequency and amount of monetary reward value have also got a significant impact on the decision of an employee on serving the organization or leaving it. The findings of the study if implemented in true letter and spirit will help the managers determine the best reward schemes and it should also contribute in the Business Analysis Body of Knowledge (BABOK).

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# CHAPTER 1

## INTRODUCTION

### 1.0 Introduction

The software development industry of Pakistan contributes significantly to the country's economy by providing jobs, paying taxes, and bringing in foreign cash. According to the Ministry of Information Technology and Telecommunication, the country's software exports faced an increase of 2.4% during 2018-2019, turning out to be \$1.09 billion [1]. The sector is confronted with both opportunities, such as the CPEC project, and disadvantages, such as intense competition. One of the associated challenges is designing and managing an efficient compensation system that satisfies the needs of the sector and allows it to compete on a global scale. A well-designed reward system also allows management to drive the right behavior and attitude from employees, allowing the company to meet its strategic goals [2]. The current study examines the compensation patterns of Pakistani software development organizations and their impact on the psychological behavior of the employees, especially in terms of whether they want to continue serving that organization or not.

It is a logical statement that as long as the employees are being paid, they will continue to work but till when? Why do employees leave? Why do organizations face employee turnover? What happens when an organization faces employee turnover in a critical stage of its functioning? All these questions have got different factors associated with them which are to be answered accordingly. The answers to these questions will lead towards deducing the logical significance of the study.

The term "employee turnover" refers to the percentage of employees who leave their jobs or companies [3]. The most effective strategy to explain employee turnover is to take into

account both voluntary leaving and new employee recruiting. Employee turnover has remained one of the most frustrating and pervasive issues confronting organizations and businesses for decades [4]. It has several negative consequences for the organization's performance and costs. People who leave their jobs can have a negative impact on productivity and morale in a team and among their coworkers, as well as raise the cost of hiring and training. All of these variables when combined, leave the organization in the dilemma of financial loss and instability which obviously is undesired and disastrous.

Employees are an organization's most important, prized, and productive assets, and keeping them engaged is one of the crucial tasks for managers to do. Employee retention is very important to the success of a business. Because replacing important employees costs a lot because of a lot of turnovers, a fully integrated retention plan is needed to deal with this. According to [5], one of the best ways to make money is to keep your employees. It is a well-known fact that having a skilled employee is important to the success of any business, but keeping that person retained is more difficult. This is due to a significant increase in new entrant recruiting, selection, orientation, and training. "Onboarding cost, orientation and training costs, decreased productivity until new hires develop knowledge and skills in their domain, as well as the loss of clients who were sharing a bond and loyal to the departing staff" are all examples of costs [6]. Today, human capital is becoming more important because businesses can gain a competitive advantage by being unique [7].

The needs of employees must be determined by the human resource managers before devising retention measures. In today's world, a good wage isn't enough to keep staff; there are a number of other factors that are of equal importance [8]. A study conducted by the Work Institute in 2019 concludes that by 2023, around 27% of employees left their jobs as per their will in 2018 and employee turnover is expected to rise gradually up to 35% which is a serious cause of concern for the organizations [9].

When we talk about employee retention and how to reduce turnover, we end up determining the importance of performance rewards as one of the strategic activities to ensure that employees are engaged enough to remain at a company. Compensation and benefits are the advantages and awards that are provided to employees in exchange for their efforts. They encourage them and assist the organization in demonstrating its objectives and priorities.

Compensation and perks have a stronger association with the intention to leave than any of the other parts of a company's operations [10].

Effective incentive systems can attract individuals who are results-driven and thus flourish in performance-driven businesses [11]. As a result, this will serve as a motivational element for employees, perhaps increasing their productivity. In these cases, performance-based incentives and recognition systems are vital for motivating employees to change their work habits and critical behaviors for the benefit of the company.

Motivation is the driving energy and a force which causes the wish in humans to want to flow in life. According to one of the classic theories of motivation, McConnel proposes that if motivation is taken into account, it turns out to be a flexible factor which does not qualify on a quantifiable scale. However, it is evident as a reflection of many other associated factors. But unfortunately, as reported by McConnel, the organizations are well aware of the significance of the motivation but do nothing about it.

The motive of this study is to analyze the relationship between employee turnover and performance incentives in Pakistan's software industry, as well as how they influence each other. It also examines the nature of performance rewards, such as whether they should be monetary or non-monetary, as well as reward frequency, which defines how frequently employees should be rewarded to achieve optimal employee retention.

## **1.1 Why Pakistan?**

Pakistan is a growing economy whose government is seeking to increase and improve economic growth by providing a suitable macroeconomic environment and expanding infrastructure to boost domestic output, foster competition, and promote economic efficiency [12]. The software industry is critical to emerging nations like Pakistan, and better establishment outcomes in these industries may have broader economic advantages. Pakistan faces two significant challenges: low company productivity and a shortage of good jobs. Indeed, Pakistan has the region's lowest productivity levels. This affects the economy on the macro level.

Employee turnover is a significant issue for the software houses and information technology industry. Employee turnover has garnered considerable attention in the software sector, and it has become one of the organizations' difficulties. It is critical to the cost, performance, efficiency, and timeliness of software projects. It is rapidly increasing. Organizations must focus on more than money alone to retain employees.

The idea of Employee Turnover Intention (ETI) has been a hot topic for local, national, and multinational organizations. It includes private and government organizations. However, the factors affecting employee turnover in organizations have not been discussed at an academic level and some of the factors that are discussed are job performance, job satisfaction, and work environment which give a positive effect on ETI. Studies that already have been done on the software industry in Pakistan do not focus on factors such as work environment and job performance.

Furthermore, a similar set of study has been conducted for Sri Lankan IT industry and our theoretical framework is somewhat an extension of the conceptual framework presented in that study; to measure the impact of three independent variables such as monetary rewards, non-monetary rewards and reward frequency on a dependent variable that was turnover intention. The study helped us build a foundation to correlate the rewards offering and frequency with the decision of an employee to stay working or quit in order to measure the turnover.

## **1.2 Employees' Retention Challenges in Pakistan**

Today, one of the biggest challenges for organizations and managers is employee retention. It involves motivation that helps to retain the employees in an organization. However, employees continue to seek a better environment and workplace. Employers, on the other hand, are using tactics to retain employees because of stiff competition. Employee turnover costs a fortune an organization which has helped the organizations and managers to focus on employee retention. However, it has been a great challenge for organizations in Pakistan to retain employees because of several factors. The major factors can be identified in terms of work environment, motivation, and succession planning.

Pakistan's employment sector has shown immense shifts. The presence of long-serving employees is viewed as a sign of internal proficiency by the companies. However, liberalization of the economy has created new employment options for professionals in the majority of industries which has increased their chances of mobility among organizations. Turnover is frequently referred to as a factor impeding a business's growth. As a result, today's organizations try to maintain a low rate of staff turnover.

Nowadays, businesses strive to retain their staff for extended periods. These businesses are aiming their efforts to attract the best talent, choose and retain them. To retain employees, employers must develop procedures that benefit both the business and the employee and result in high-performance standards. It is vital to recruit employees that are driven by policy and prospects to foster an emotional connection between the company's values and its employees. According to [13], a manager's assistance to the employees may result in making them feel more associated and involved within the firm. As a result, they will retain their preference for their companies.

While the population of Pakistan shows a large percentage of experienced persons, this, in reality, is not the case. Pakistan being the world's sixth most populous country is home to 187 million citizens. As highly qualified employees are high in demand Pakistanis having degrees from reputable institutions and experiences by working in multi-national and respectable organizations have hardly few opportunities at a given time. Additionally, due to the high attenuation rate in Pakistan's several industries, this form of revolving door induction costs firms' significant loss in training and production, according to some of the estimates, a departing employee might cost an industry double its yearly revenue. As a result, human resource managers must prepare themselves to deal with two significant challenges confronting Pakistani industries: acquiring the best talent in the face of severe competition and keeping employees satisfied so they do not quit. It is vital to follow human resource best practices, which include developing a competitive remuneration package, keeping a safe working environment, and guaranteeing that employees feel valued, well-supervised, and offered fair treatment by their superiors. Numerous Pakistani businesses provide on-site recreational activities for their employees, which assists employees to cope with work-related stress and remain committed.

### 1.3 Research Aim

The research is built around the knowledge that the majority of Software industries are unable to maintain a reasonable employee retention rate [14]. Hence my research thesis emphasizes the use of performance rewards in the Software Industry of Pakistan, moreover, it is being intended to study and identify the key rewards that give a real boost to the motivation of an employee hence lowering the chances of employee turnover.

### 1.4 Problem Statement

Software Industry faces a huge loss caused by employee turnover yearly [14]. This is because of unmet deadlines and waste of resources and investment spent on the training of the employee which leaves [4]. Managers need to better understand the techniques of employee retention, the impact of performance rewards on it, and their mutual relationship as performance rewards are one of the important measures that keep the retention rate high [2], [3] and [10].

### 1.5 Research Questions

**RQ1.** What types of rewards are being provided to software industry employees for their performance?

Objective: To determine the nature of performance rewards already being offered to the employees in the Software Industry. This will help measure the quality of rewards being offered.

**RQ2.** What is the psychological effect of the performance rewards on an employee?

Objective: To understand the outcome of the reward distribution. This will help in building an understanding of whether performance rewards tend to help increase the employee retention rate or not.

**RQ3.** Which key performance rewards tend to be most effective in retaining an employee?

Objective: To be able to recommend certain rewards. This will help the managers in selecting specific rewards to minimize employee turnover in their industries.

## **1.6 Scope of the Study**

The scope of the study is as following:

- i. It was initially intended to be performed for the software industries of Pakistan.
- ii. The sample size was calculated using the Sekaran's technique [15], assuming population of managers and employees to be 500 out of which 200 were to be involved in the survey, with the margin of error to be 5% and confidence level to be 95%, the sample size was calculated to be of 132 respondents according to the calculation. Upon the successful conduction, 141 responses were gathered and analyzed.
- iii. For survey conduction, employees having a technical role were contacted through online questionnaire.

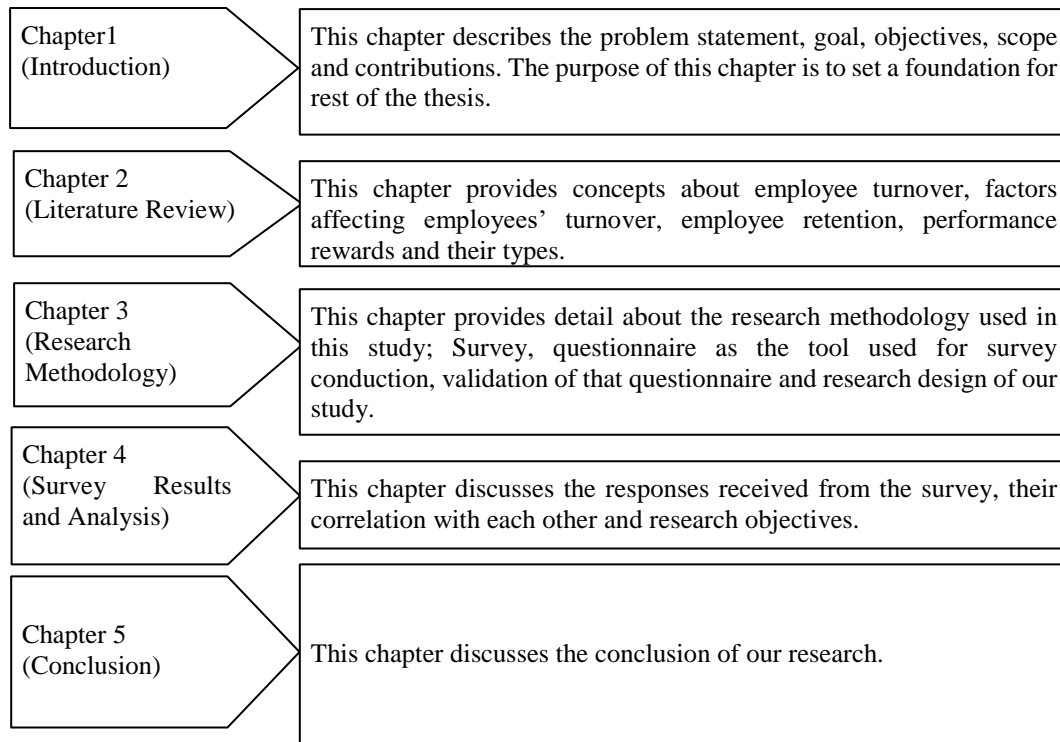
## **1.7 Contribution and Significance of Study**

The contributions of this study are as following:

- i. It will help us identify the types of rewards being offered in the employees working in the software industry, which is significant in helping the managers in crossing out the useless rewards.
- ii. It will contribute by boosting the motivation of employees after determining the psychological impact of performance rewards, and will help gain the loyalty and commitment of the employees, making them achieve the business goals of the industry efficiently. This will also minimize the employee turnover.
- iii. It will also help the managers in determining the most effective performance reward(s) for their employees.
- iv. It will also have a great contribution in the Business Analysis Body of Knowledge from engineering perspective.

## 1.8 Outline of the Thesis

Given in the figure below is the outline of the thesis.



*Figure 1.1: Outline of the thesis*

## 1.9 Summary

This chapter described the introduction of employees' turnover which is the problem area by reporting its background and the challenges being faced in Pakistan. The chapter also discusses the aim of research, problem statement, research questions and objectives, scope, contribution and significance of the study.



## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Overview**

The objective of this section is to present literature on the concept of employee retention and its significance in software industries and IT organizations in Pakistan. It tends to explain about the employees' turnover rate and discusses strategies which can be adapted by organizations in order to minimize turnover and retain talent. The concept of employee retention is differently explained by the researches due to the difference in perspectives.

#### **2.2 What is Employees' Turnover?**

Employee turnover is well recognized as being costly and disruptive to business operations. In the literature, turnover is characterized in a variety of ways. Employee turnover is defined [16] as the movement of individuals within the labor market [17]; it can occur between employers and employees, as well as between occupations and positions [18]. According to [19] and [20], turnover can be voluntary; involuntary; or caused by employers firing or laying off employees, or by death, transfer, retirement, or disability [21], [22], [23] and [24]. Employee turnover is defined as the percentage difference between the number of employees an organization should replace and the average number of total employees in the organization over a specific time. Turnover is believed to diminish staff productivity, morale, and efficiency making it more difficult for firms to fulfill their objective [25].

Additionally, it has been suggested that there are two distinct types of turnovers: voluntary and involuntary. Managers often refer to turnover as the thorough procedure of filling

a vacancy: as soon as there's a position vacant, either voluntarily or involuntarily, a new employee may be hired and trained [26]. Moreover, it is often described as the efforts to assess relationships of departing employees in an organization, regardless of the reason for their departure. Because they place a high premium on employee's voluntary turnover and thus face loss influencing the organization's treatment to staff's movement, according to [27] definition of organizational employee turnover has been widely adopted, namely employee turnover is described as "the end of the process of an individual obtaining material income from the organization." This definition omits the possibility of existing employees moving inside an organization; instead, it uses wage labor contracts to define the relationships between members, which easily identifies the shareholder status' turnover change.

A significant problem for many businesses is that turnover increases the organization's costs, particularly in jobs with minimum wages [28]. Numerous factors influence an organization's turnover rate, including employee and employer factors. These variables may include remuneration, benefits, earnings, and job analysis, among others. According to [29], turnover results in indirect and direct expenses for an organization, including human resource costs, training, advertising, retention, and productivity loss [30].

Employee turnover has been a topic of previous studies which focused on the reasons or factors that made the employee leave their job. Mostly, it is because the employees feel that their workplace or their job is not according to their expectations. Also, little training and feedback restrict the opportunities for advancement and growth. Moreover, in some organizations, the employees feel unrecognized and devalued due to overwork and no work-life imbalance. However, loss of trust in the leaders is another factor for employee turnover.

For well-being and performance, trust is an important factor that helps to reduce employee turnover. Therefore, lacking trust might refrain the employees from sharing their experience and knowledge with their colleagues in an organization. However, it affects the effectiveness of the organization resulting in high employee turnover. Therefore, factors regarding professional development and improvement such as poor human resource policies, interpersonal conflicts with colleagues, high salary potential, and personal reasons can result in employee turnover.

## 2.3 Factors Affecting Employees Turnover

When one individual departs a team, the team's total capacity to execute a specified amount of work is considerably impaired [31]. After an employee leaves, the onboarding process is critical. Oftentimes, new employees do not comprehend their job descriptions, which results in the organization suffering significant consequences. Additionally, it has been observed that if an organization's onboarding process is ineffective, there is a good possibility that the new employee will not stay long enough with the organization. In [32], stated that there are numerous reasons why an employee leaves an organization i.e. work (role overload), social (economic law reforms), individual (age), and organizational issues (company practices and procedures). Additionally, mentioned research includes quantitative findings showing how many firms can apply policies and procedures designed to empower people and thereby reduce turnover. Additionally, it is more beneficial for firms to examine the factors that contribute to employee intent to resign from their current position than it is to research the specific turnover [33].

*Table 2.1: Factors affecting Turnover*

<i>No</i>	<i>Factors affecting Turnover</i>	<i>Review</i>
1.	Compensation and	[34]
2.	Benefits	[35], [36]
3.	Training	[37], [38]
4.	Job satisfaction	[39], [40]
5.	Culture & Process	[41]
6.	Growth & Development	[43]
7.	Job stress	[43]
8.	Work-Life balance	[44]
9.	Work environment	[45]
10.	Age	[46], [47]
11.	Marital Status	[48]
12.	Gender	[49]

Previous studies have shown that the turnover intentions of IT personnel might provide some useful insights into the factors that are responsible for the inclination to leave the firm. It is a fact that HR policies influence employee decision-making to switch jobs which is being neglected. There are significant relationships between the following factors: compensation and benefits, training, job satisfaction, culture and process, growth and development, and work-life

balance as shown in Table 2.1. On the other hand, age, marital status, gender, and education level have no major impact on whether or not IT employees intend to leave their jobs [43, 46, 47, 48, 49]. The primary goals of the research are to identify the key contributors to employee turnover and to examine the relationship between employee turnover and employee loyalty in software industry of Pakistan. It was found that compensation is a key component of HR practices after examining the association between employee intention to quit the work and HR practices [34]. The employee receives recognition and gratitude in the form of the promotion. It demonstrates acknowledgement from the employer, dedication to the advancement of one's profession, and a commitment to further education. Training, on the other hand, contributes to a lower staff turnover rate and increases employee retention [37, 38]. As a result, managers ought to make use of a variety of HR practices that ought to improve on-the-job links, opportunities to match with the work environment of the organization [45], and sacrifices in the form of tangible and intangible benefits such as salary, company-provided facilities, potential growth opportunities [43], and dysconnectivity of links with supervisors and employees working in the organization.

## **2.4 Employee Retention**

Employee turnover and its impact on an organization and industry have received considerable attention from industrial psychologists, human resource professionals, and senior management. According to human capital theory, Becker proposes that investing in human capital can increase employee productivity and profits along with the well-being of an employee [50]. Hence, it leads to high performance in an organization keeping the efficiency of the organization at a higher level. As a result, it can benefit both organizations and employees. Moreover, the high cost of employee turnover has convinced organizations to have a retention strategy. However, it has become an increasing practice for employees to learn and understand each other's work and behavior.

One of the best employee retention strategies includes employee engagement and ownership leads to greater motivation among the employees. Therefore, it strengthens the organizations in various ways. Moreover, involving employees in decision-making and problem-solving can lead to increased productivity, decreased absenteeism, better attitudes, and

turnover. Furthermore, changes in the behavior of senior managers, management systems, and organizational variables can help to retain employees.

Organizations often upskill employees and some employees leave before they are fully utilized their contributions and talents for an organization. However, leaving an organization without an adequate return on the significant investments they have made causes loss. Organizations need to engage their employees to make great strides in their experience which would increase creativity, profits, and efficiency.

Employee Retention is a strategy that aims to inspire the employees to remain with their organization for a prolonged time period. As organizations acknowledge the vital role of employee retention and the value of key staff, managers and team leads are adopting a variety of employee retention methods that account for the numerous factors of retention that influence the intention of their employees to stay with the organization. Additionally, [51] described employee retention as "a process in which personnel is encouraged to stay with the company for a longer period of time or until the project is done." Because staff departures can have a detrimental effect on the performance and profitability of the organization. The primary reason for employee retention is to assist in avoiding them [52]. As a result, firms will experience lower turnover and incur lower employee-related costs.

According to [53], employee retention is primarily motivated by the organization's advantage; yet, it is described in terms of "some concept of appropriate or sufficient duration of service," which refers to the essential effects on customer care or the expenditure of hiring and training. Keeping this in view, the retention elements that have a substantial impact on staff retention within any firm must be evaluated. According to the Government [54], employee retention is "an endeavor to create and foster a systemic environment that drives people to endure employment through policies and practices that fulfill their unique demands. It is concerned with the concept of inspiring employees to stay in an organization as a functional unit for a prolonged period of time. This inspiration necessitates the management of numerous aspects and tactics to be effective.

## 2.5 Importance of Employee Retention

The principles, behavior, and beliefs of the employees not only affect the tasks but also overall effectiveness and efficiency. The description of the job and collaboration are of supreme importance to employees. Moreover, staff turnover has a massive impact on the organization. For example, an organization hires and trains new employees but it should invest time to make sure the new employees are efficient for the organization. As we know, employee turnover is costly due to the replacement cost of new employees. Due to turnover, the guarantee of good-quality employees is threatened and large sums are spent on the hiring and training of new employees. Therefore, it ends up causing loss of the company.

Additionally, if employees continue to leave companies, organizational development department would have to cut the costs (money and time) on hiring and training the new employees which gives a negative effect on the organization in long run. High turnover reduces the number of entry-level employees forcing the use of temporary workers, hampering skill development, and negatively competitiveness and productivity. Moreover, employee turnover can have a negative impact on the operating costs and retention of skills needed to maintain business operations with a competitive advantage. The lack of skilled, talented, and qualified employees can lead to a management problem. However, it affects the productivity, quality of products and services, and profitability. From the perspective of workers, job security, morale, and high attrition rates can affect working relationships.

In addition, employee turnover is associated with high costs, both at the individual and organizational levels. At the individual level, it does not matter if someone leaves voluntarily for another job or leaves involuntarily and is personally influenced. As for the organizational level, the problem arises when employees leave to take with them their valuable knowledge and experiences gained. Moreover, employee turnover is related to the costs of the organizations such as financial costs associated with employee hiring, training, and turnover costs.

The cost of replacing an employee including replacement and training costs, and severance is estimated between 1.5 to 2.5 times the annual salary of an employee. Additionally, hiring and training replacement employees can cost a fortune of 50 to 60% of the annual salary of an employee. Hence, higher employee turnover can cause financial loss to the organization.

Talent replacement, on the other hand, can cost up to 25% of the company's total annual spend in compensation to the company. Therefore, employee turnover can cost organizations time, money, lost resources, and productivity.

Nowadays, employee retention plays a significant and vital role in an organization. According to [55], each time an employee who works in a professional or managerial capacity leaves, an average organization loses more than \$100,000, making turnover extremely expensive [56]. Moreover, according to organizational equilibrium theory [57], generally, an employee will remain with an employer as long as the incentive offerings (pay, working environment, and career advancement chances) are comparable to or greater than the employee's services (such as time, effort and energy). Individual desire and comfort are equally significant in this setting. Effective approaches for employee participation either direct or indirect result in attitudes that prove more favorable for the organization, such attitudes include dedication, retention, job, and pay satisfaction. When employees have an active role in developing policies and making choices inside their firm, it can be difficult for them to leave [58]. Employee involvement methods may be an effective tool for retaining employees in underdeveloped nations such as Pakistan, where financial pay is low [59].

In a book titled as "*Corporate Strategy*" by B. Hiriappa, a set of corporate strategies have been discussed to help attain excellence in a business, there are several discussions and quotations from the representatives of technological giants such as Apple, IBM, Microsoft and Google about their strategies for maximizing businesses that includes taking care of employees well-being, understanding their needs and providing them performance based rewards. In the similar book, a strong emphasis has been put on employee retention (written as talent retention in the book) that it is the most significant task in a tech industry where the technology changes very rapidly and business dynamics are constantly moving fast with new companies are being built everyday and old ones being sold on almost daily basis. Moreover, the book clearly states that the success of a company relies on the skills being possessed by its human resources. Therefore, it is quite important to retain an employee for the talent s/he possesses [60].

## 2.6 Reward Practices & Types

If firms maintain a competitive climate, reward schemes tend to be appealing to employees who enjoy overcoming obstacles. This enables them to execute allocated work efficiently, hence assisting the business in meeting its objectives. As this is a win-win situation for all parties involved, it can be fairly believed that performance rewards are the primary motivating drivers.

In some businesses, monetary benefits alone are sufficient to inspire employees and elicit the best performance, whereas, in others, non-monetary rewards are more beneficial. The monetary incentive is also known as an extrinsic incentive, and it is mostly financial in origin [61]. A common sort of monetary incentive is a cash transaction between an employee and his or her company, which may include cash or payment in kind, commissions, personal bonuses, and health allowances. Internal feelings of growth, autonomy, fulfillment, and self-competence motivate the non-monetary compensation which is also referred to as intrinsic compensation. Non-monetary rewards or compensations that are frequently given include recognition, positive supervisory conduct, a positive social environment, effective communication, flexible work hours, cooperation, respect, and a nice work environment [62]. According to research, both monetary and non-monetary benefits motivate the employees working in an organization [63]. Moreover, according to the research done by the US Department of Labor, 46% of employees leave their jobs because they feel unacknowledged, this makes it difficult for management to manage this high turnover rate because of a lack of effective employees' rewards and recognition initiatives [64].

Increments, stock options, recognition, promotions, cash bonuses, company swag and training are just a few of the notable performance benefits offered by most firms.

**2.6.1 Salary Increments** – A salary increment is an increase in the gross monetary compensation of an employee. It is either a fixed amount or percentage of the gross salary. Usually, a percentage of a salary is given as annual salary increment. This percentage is applied to the employee's regular compensation already in place. For example, if an employee is making PKR 600,000 a year, an increment of 2% can be distributed per month salary or paid at once.



**2.6.2 Employee stock options** - Employee stock options (ESOs) are a type of equity compensation that corporations offer to their executives and employees. They entitle the holder to purchase business stock at a certain cost and in quantities stated in the options agreement for a specified period of time. ESOs are the most often used form of equity remuneration.

**2.6.3 Promotions** - A promotion is the assignment of a higher-level position to an internal employee, together with a delegation of the duty and authority necessary to do that higher-level work, which is often compensated more. Theoretically, a promotion requires more work effort on the job. However, it can vary from one organization to another depending on the policies and promotion-based decisions. Therefore, promotion can be based on performance, seniority, experience, and length of service.

**2.6.4 Recognition** – It is one of the most effective strategies for rewarding employees [65]. They not only need to know how well they accomplished their aims or completed their task but also how much their efforts are valued. In Abraham Maslow's hierarchy of needs, recognition requirements are connected to esteem needs. Also, the successful business knows that the more gratitude in a company, the better the performance will be. The act of acknowledging the contribution of an employee's work is known as recognition. It not only depends on the day-to-day tasks but ideal behaviors, teamwork efforts, and others ways to get things done.

**2.6.5 Cash Bonus** - A cash bonus is a financial remuneration that exceeds the employee's normal payment expectations. It acts as a motivator by compensating employees for their previous year's performance. As a result, they promote short-term thinking above long-term strategic accomplishments [66]. It must be ensured by the organizations that these bonus schemes are organized in such a way that they reward only exceptional workers. This helps to improve employee motivation and productivity.

**2.6.6 Company Swag** – It is a promotional merchandise such as customized mugs, flash drives, tee-shirts etc. offered to the employees as a token of gratitude while improving brand recognition as well.

**2.6.7 Training** - Organizations also provide training to their staff as a way to thank them for their contributions. This training assists both the organization and the individual in being considered experienced and skilled enough to change careers [67].

**2.6.8 Reward Frequency-** The reward frequency metric indicates how frequently an organization recognizes employees for their performance. The rate at which incentives are provided may be more important than the reward's value. Rewarding small actions that result in large achievements require a more frequent approach but is well worth the value of inspiring your employees. Additionally, by providing numerous opportunities for prizes, you can keep your program top-of-mind throughout the year [68].

After a thorough review of the literature, it has come to the conclusion that previous studies have been done on the factors affecting employee turnover, the retention and its importance in the software industry. However, there has no concrete study been found connecting the performance rewards to employee turnover in the working dynamics of the software industry. This study will not only help measure the impact of performance rewards on employee turnover but will also suggest the best reward which tends to be most helpful in the retention of an employee.

## 2.7 Related Work

There was almost no and less amount of existing literature available similar to the area of research, the somewhat similar studies have been presented in the table 2.2 below.

*Table 2.2: Existing Studies*

S. NO	TITLE	REFERENCE	AUTHOR/YEAR	DOMAIN	CONTRIBUTION	LIMITATIONS
1.	Impact of Performance Rewards on Employee Turnover in Sri Lankan IT Industry	[69]	Susith Sethunga, Indika Perera / 2018	IT Industry	Employees tend to leave if no emphasis is put on performance rewards, reward frequency should be improved and only monetary rewards should be focused more.	Sri Lankan IT Industry which has different dynamics than our intended area of research.
2.	Practices in Human Resources and Employee Turnover in the Hospitality Industry	[70]	Nico D. Djajasinga, Lilis Sulastri, Acai Sudirman, Avid Leonardo Sari, Eko Lianto Rihardi / 2020	Hospitality Industry	The HR practices should be inculcated in the employees as per the evolving requirements to minimize turnover. Policies should be assessed regularly.	Major differentiation in the functioning as compared to software industry.

					There should be growth opportunities	
3.	The effects of rewards and proactive personality on turnover intentions and meaning of work in hotel businesses	[71]	Yilmaz Akgundus, Ozge Adan Gok, Ceylan Alkan / 2019	Hospitality Industry	It emphasizes that financial gains can lead the employees towards increased productivity	Major differentiation in the functioning as compared to software industry.
4.	Impact of Perks on Employees' Turnover	[72]	Ayesha Khan, Muhammad Abdullah Idrees, Muhammad Arsalan Khan, Muhammad Bilal Raees, Muniza Syed / 2021	Human Resources	Study concludes that perks have a negative impact on turnover however salary remains an influential variable for the retention of employees.	Not specific for the Software Industry so the obtained results might not be applicable on our intended area of research.
5.	How do Human Resource Management Practices Predict Employee Turnover Intentions: An Empirical Survey of a Teacher	[73]	Kyalo Abigail Manthi, James M. Kilika & Linda Kimencu / 2018	Education Sector	HRM practices are applied on a low extent in the primary teachers' training colleges. If applied, those practices could help measure the turnover intention.	Strictly based on turnover intentions of teachers in education sector which has operational dynamics different than the software industry.

As indicated in the table above, majority of the similar studies have been conducted in the domains with a totally different functional dynamics than our area of research i.e. Software Industry and that too, of Pakistan. However, a conference paper titled, “*Impact of Performance Rewards on Employee Turnover in Sri Lankan IT Industry*” stood the most relevant and helping one. It was written and published in May 2018 which addressed the similar issues for the employees working in the Sri Lankan IT industry. The paper focused on determining the value of monetary and non-monetary rewards, reward frequency and the correlation between employee turnover and performance rewards. In our research, we determined the psychological impact of performance rewards as well to get the insights of these variables in accordance with the dynamics of the software industries in Pakistan [69]. Unfortunately, there was no similar study found for Pakistan. The other international studies were quite old and the data it contained was assumed to be outdated.

## 2.8 Summary

Employee Turnover has been a major topic for most organizations and their senior management. It involves various factors where an employee leaves a job and goes for another job because of a better work environment and the nature of the job. However, retaining an employee is a big challenge for organizations because of poor human resource policies. Furthermore, employee reward policies can vary from one organization to another which can elevate the risk of high employee turnover. Instead of spending time and money on the replacement of new employees, organizations can work on employee retention strategies. An organization going through a high employee turnover does not get a negative effect on performance but it can cause financial loss too. However, if organizations can work on the factors affecting employee turnover, they can work on rewards and their types to retain the employee.

Employee Turnover crisis has its negative outcomes spreading almost every field. Software Industries has been facing it for ages now. Many organizations take necessary measures to ensure employee retention, performance rewards are one of the measures. However, not all performance rewards tend to be as motivating as considered. The study emphasizes the use of performance rewards in the Software Industry of Pakistan, moreover, it is being intended to study and identify the key rewards that give a real boost to the motivation of an employee hence lowering the changes of employee turnover.

## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Overview**

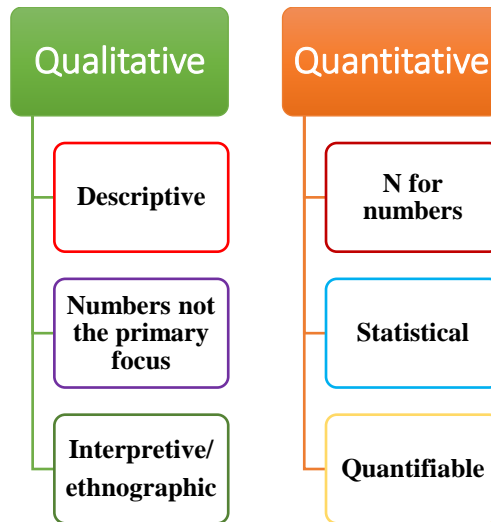
In this section, the data for this thesis was gathered by questionnaire-based survey. But before discussing about the research methodology adopted in our study. This section also provides the basic knowledge about research methodology and its types. How research design is created along with the real-life examples and research flow figures. In addition to it, types of research methods are discussed like surveys, case studies, questionnaires etc. It further contains the validation techniques that were applied on the survey before rolling it out.

#### **3.2 What is Research Methodology?**

The term "research methodology" refers to a method for conducting well-structured research. There are several methods adapted in various forms of research, and the term is typically used to refer to the research design, data gathering, and analysis. The purpose of research methodology is to inform: why a research study has been conducted, how the research problem has been described, how and why the hypothesis has been devised, what data have been collected and by what method, why a particular technique of data analysis has been used, and several other similar queries are typically referred to when we discuss research methodology concerning a research problem or study [74].

Two types of research methodologies exist, either quantitative (e.g., determining how many times someone performs something under specific circumstances) or qualitative (e.g.,

inquiring people about their feelings regarding a certain situation). An aspect of the methodology of research is associated with the approach in which the study is conducted. This is termed as study design, and it normally includes doing research using observations, surveys, interviews, and/or experiments [74].



*Figure 3.1: Quantitative & Qualitative Research*

### 3.3 Research Design

The research design is intended to serve as a roadmap for the study's execution. The research approach selected is an important option in the process of research design because it establishes how relevant data for a study will be collected; yet, the research design process is made up of several interrelated decisions [75].

Several approaches were used in this research. In the first phase of the study, a number of designed questionnaires (for management, industry technicians, and worker representatives) and semi-structured interviews with important stakeholders in participating firms (government organizations, ministries, and industries) were included. An interview with the employees was made part of the method to ascertain their attitudes toward workplace safety and health, as well as field observation at selected industrial locations, was used.

Thus, the purpose of this study was to determine the impacts of occupational health and safety management systems on employee health, property damage, and safety in a range of industrial settings using a descriptive research technique. Descriptive research, according to [76] and [77], creates a precise portrayal of individuals, situations, or events. This design provides researchers with a profile of described relevant components of their research phenomena from a personal, organizational, and industry-focused standpoint. As a result of this research approach, the researchers were able to collect data from a wide range of respondents.

### 3.4 Types of research methods

As the academic area of Information Systems has grown, the researchers of this field have acquired an increased interest in the discipline's nature, publication venues, and successes. Some propose that such self-reflection is desired because this way it allows the community to better understand its past accomplishments and to direct its efforts productively in the future [78]. From 1998 to 2007, all research articles in the AIS basket of the six top journals were examined by it [79]. They classified papers into this category based on whether they utilized a survey, a case study, a laboratory experiment, a field experiment, or action research as a method.

The five research methodologies were described by them as follows:

- **Surveys:** Questionnaires, either paper-based or web-based, are used in the studies that use this method for collecting data.
- **Case Study:** Data is often acquired from "multiple sources of evidence," such as interviews and records, in case studies conducted in one or more locations over a while [80].
- **Laboratory Experiment:** Experiments in the lab are used to establish control over the independent variables that are being measured. Treatments are usually assigned at random to participants and/or groups.

- **Field experiments:** In contrast to laboratory experiments, which take place in a controlled setting, take place in a natural system. As a result, researchers typically don't have complete control over the variables they're measuring.
- **Action research:** attempts to address a practical issue in a research context while also enhancing our understanding of the phenomenon. Individuals in a team or as members of a "community of practice" participate in action research that is a reflective process of progressive problem-solving.

### 3.5 What is survey research?

There are a number of uses of survey research. They are used to address specific questions being asked, to resolve problems that have been posted or seen, to figure out what is needed and establish goals, to determine if specific goals and objectives have been met, to establish baselines against which future comparisons can be made, to analyze how trends have changed with time, and to describe the existence of a matter, in what quantity and context [81].

"Questioning respondents on a topic or topics and then documenting their responses" [82] is the essence of the survey method.

The survey method has two main goals:

1. Defining specific traits or attributes of a population and/or
2. Hypotheses about how people interact with each other in a population are tested.

Survey research can be carried out quantitatively (e.g., using questionnaires with numerical values indicating the rating), qualitatively (using open-ended questions), or both quantitatively and qualitatively (i.e., hybrid methods). As surveys are often used to describe and investigate human behavior, they are frequently utilized in social and psychological research [83].

Postal surveys, telephone surveys, and personal interviews are three main types of survey methods. The following table [84] provides a brief overview of each of these tactics.



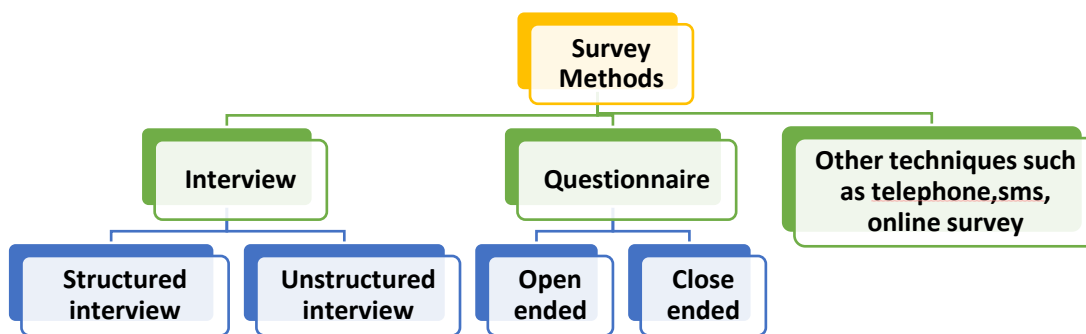
**Table 3.1: Overview of Survey Methods**

<b>Survey method</b>	<b>Description</b>
<i>Mail survey</i>	A written survey that is self-administered
<i>Telephone survey</i>	A survey conducted by telephone in which the questions are read to the respondents
<i>Personal interview</i>	A face-to-face interview of the respondent

On the other hand, questionnaires, interviews, and documentation reviews are the most often used survey formats from a practical standpoint [86] Summarizes the main benefits and drawbacks of several primary data collection methods as follows:

**Table 3.2: Advantages and disadvantages of survey data collection methods.**

<b>Method</b>	<b>Purpose</b>	<b>Advantages</b>	<b>Disadvantages</b>
<b>Questionnaire</b>	To get a lot of information in a short amount of time.	Individuals who are part of the sample group may remain anonymous. Significantly less expensive than the majority of other primary data collection methods The ability to generate a significant amount of data	Difficulties making sure that the research had more depth.  It has to do with the 'first choice selection'
<b>Interviews</b>	Conducted to reflect on feelings and experiences, as well as to investigate situations with a broader emphasis	Having the ability to direct a process of collecting data.  The ability to get the kind of information that is needed.	It takes a lot of time to set everything up, conduct interviews, and collect the main data for the study.  Organizing and conducting interviews, traveling, and so on could cost more money.
<b>Documentation review</b>	Conducted to investigate concerns that have arisen over a while	The ability to retrieve detailed information	Access to documentation can be difficult. It's hard changing the way you do research.

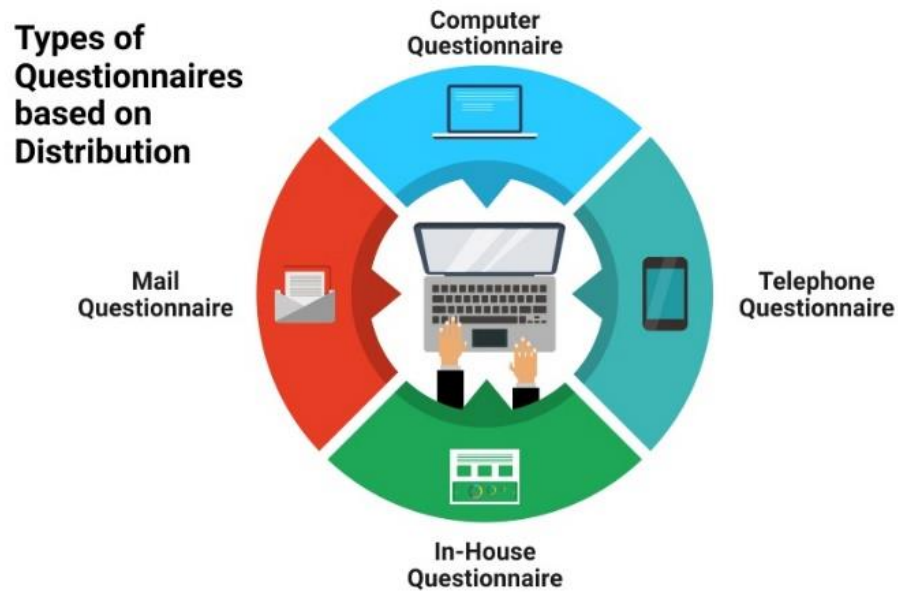


*Figure 3.2: Survey Methods*

### 3.6 Questionnaires

In survey research, a range of data collection techniques may be used, with questionnaires and interviews being the most common. Questionnaires may be self-administered or administered by a professional, individually or in groups, and typically consist of a sequence of items reflecting the study objectives. In addition to legal and reliable research instruments, questionnaires can include demographic questions [85]. When authors describe the survey questionnaire's contents, it makes it easier for the reader to perceive and evaluate the survey questionnaire's potential for validity (i.e., instruments that do not perform the function (measurement) for which they were designed) and reliability (i.e., instruments that do not consistently measure a concept). In the literature, there are some useful examples of studies that describe survey tools [86]. The validity techniques mentioned above ensure that the data being collected is relevant and helpful for the research. On the other hand, if a survey is conducted without testing it for at least the face validity and reliability, data analysis becomes difficult, complex and usually comes up with the observations that may mislead the researcher(s) towards a false outcome. Research must always be built on truth, facts and thorough homework, this homework involves addressing the question of which survey method is to be used and why. The logical deduction of a researcher opting for a specific research method, its reason directly coincides with how much factual understanding of that researcher is about his/her topic and how diligently will s/he fulfill the research objectives.

Questionnaires can be mailed to participants in paper form or sent electronically via an Internet-based service like Survey Monkey or emailed as shown in figure 4.



*Figure 3.3: Types of Questionnaire*

A combination of both can be used as well, authorizing the participant to choose whatever format they prefer [70]. Combining survey administration methods can assist to assure improved sample coverage (i.e., all members of the population have a possibility of being included in the sample), hence lowering coverage error. For instance, participants without access to a computer would be disqualified if a researcher used just only an Internet-delivered questionnaire. Therefore, self-administered questionnaires through mail, group, or Internet are very inexpensive and practicable for a large sample [87].

In [88], they define and test a personalized survey research design technique. Enhancing the visual appeal and graphics of surveys by selecting an appropriate font size for respondents, logically organizing items without introducing unintentional response bias, and presenting items appropriately on each page can all contribute to increase the response rate to electronic questionnaires. By addressing these and other concerns with electronic surveys, researchers can help reduce measurement error (i.e., a questionnaire's lack of validity or reliability) and increase response rates.

Intelligent usage of the aforementioned survey type paves a way for the researchers to have an accurate and concrete analysis of the data, without any unintentional research bias or

risk of losing the protentional number of responses just because of the feasibility or preferences of the audience.

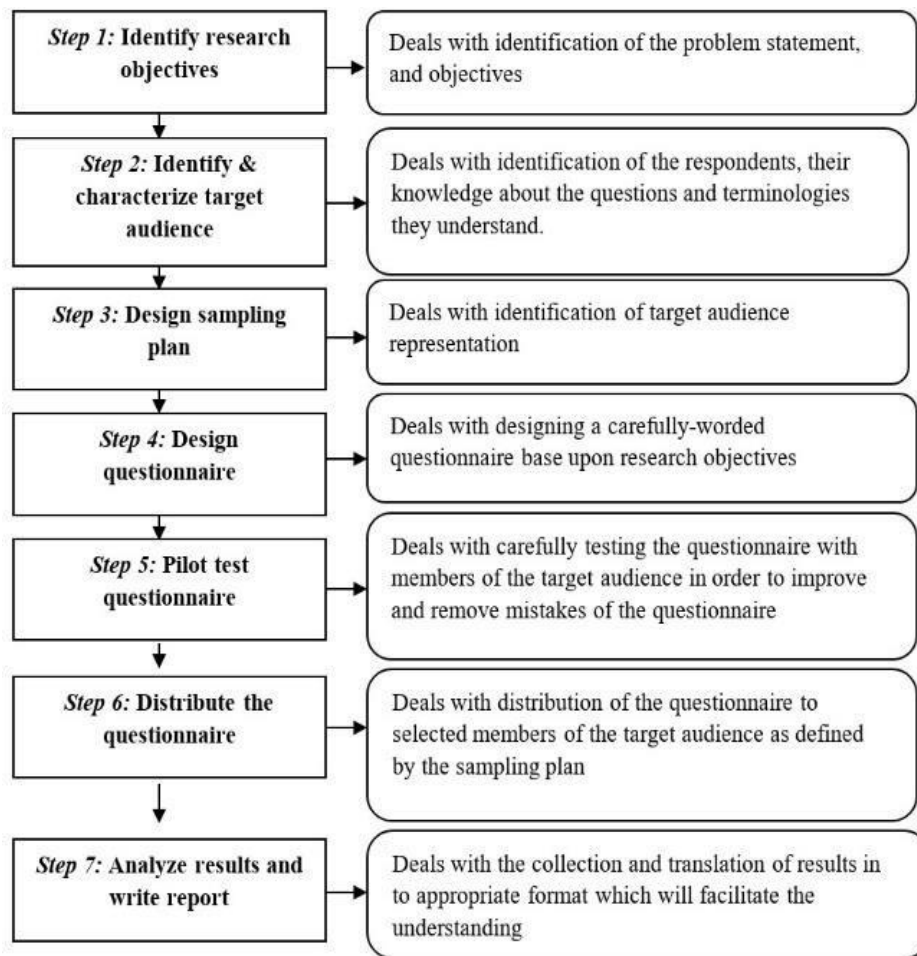
### **3.7 Research design of our study**

The research objectives identified for the study are as follows:

- Measuring the significance of performance rewards on employees.
- Minimizing the employee turnover in the software industries of Pakistan.
- Helping the managers determine the most effective performance rewards for their employees.
- Help gain the loyalty and commitment of the employees by providing them a motivation boost in the form of performance rewards, in return making the industry achieve its business goals.
- Further enhancing the Business Analysis Body of Knowledge (BABOK) from an engineering perspective.
- This study helps us to find the interrelationships between dependent and independent variables involved by researching managers and employees of leading software industries.

The survey was based on the guidelines of conducting an effective survey as suggested by Mark Kasunic in his book published by the Software Engineering Institute (SEI) [89].

Below are the steps of survey conduction as per Kasunic in Figure 3.5.



*Figure 3.4: Survey conduction by Mark Kasunic*

Keeping in view the nature of the research study under consideration, industrial survey was used to answer the research questions through a questionnaire.

The questionnaire was designed to be having closed ended questions to save the time of the audience and get concise results. However, a few questions had an “Other” option to get better insights of the audience and analyze the data better. The questionnaire is hereby attached in Appendix A. To check the validation of the questionnaire, two types of validation techniques were used; Average Congruency Percentage (ACP) and Content Validity Index (CVI).

ACP was used to check the relevance of the questions included in the questionnaire and whether they successfully help in answering the research questions. For this purpose, four experts were selected, a PhD mathematician with majors in data statistics, a PhD in project management having extensive experience of employee engagement, a data-analyst working in an internationally renowned e-learning platform and a human resource expert. Expert 2 found 2 questions out of 25 irrelevant, this resulted in remaining 23 questions to be 92% relevant.

Expert 1 and 4 found 1 question out of 25 questions irrelevant, making the other 24 questions to be 96% relevant each. Expert 3 considered all questions to be relevant with the topic resulting in 100% relevance of the questions at their individual levels. The average value of the experts' congruency percentage is 96% which is considered valid. Table 3.3 shows the results obtained by the ACP.

*Table 3.3: Results of Average Congruency Percentage*

<i>Questions</i>	<i>Expert 1</i>	<i>Expert 2</i>	<i>Expert 3</i>	<i>Expert 4</i>
<i>1</i>	X	X	✓	X
<i>2</i>	✓	X	✓	✓
<i>3</i>	✓	✓	✓	✓
<i>4</i>	✓	✓	✓	✓
<i>5</i>	✓	✓	✓	✓
<i>6</i>	✓	✓	✓	✓
<i>7</i>	✓	✓	✓	✓
<i>8</i>	✓	✓	✓	✓
<i>9</i>	✓	✓	✓	✓
<i>10</i>	✓	✓	✓	✓
<i>11</i>	✓	✓	✓	✓
<i>12</i>	✓	✓	✓	✓
<i>13</i>	✓	✓	✓	✓
<i>14</i>	✓	✓	✓	✓
<i>15</i>	✓	✓	✓	✓
<i>16</i>	✓	✓	✓	✓
<i>17</i>	✓	✓	✓	✓
<i>18</i>	✓	✓	✓	✓
<i>19</i>	✓	✓	✓	✓
<i>20</i>	✓	✓	✓	✓
<i>21</i>	✓	✓	✓	✓
<i>22</i>	✓	✓	✓	✓
<i>23</i>	✓	✓	✓	✓
<i>24</i>	✓	✓	✓	✓
<i>25</i>	✓	✓	✓	✓
-	96%	92%	100%	96%
-	<b>96%</b>			

To calculate the CVI, a likert scale was used having 4-point ordinal values. 1: Not Relevant, 2: Somewhat Relevant, 3: Quite Relevant and 4: Highly Relevant. The same four experts were asked to evaluate the relevance of each question with the topic according to this scale. The I-CVI, whereas I indicating the validity of each item (question in our case) was calculated. The questions for which the experts answered 1 and 2 were considered as Irrelevant while 3 and 4 were considered as relevant. Table 3.4 shows the results obtained by the CVI.

*Table 3.4: Results of Content Validity Index*

<i>Questions</i>	<i>Expert 1</i>	<i>Expert 2</i>	<i>Expert 3</i>	<i>Expert 4</i>	<i>Number of Agreement</i>	<i>I-CVI</i>
<b>1</b>	-	-	x	-	1	0.25
<b>2</b>	x	-	x	x	3	0.75
<b>3</b>	x	x	x	x	4	1.00
<b>4</b>	x	x	x	x	4	1.00
<b>5</b>	x	x	x	x	4	1.00
<b>6</b>	x	x	x	x	4	1.00
<b>7</b>	x	x	x	x	4	1.00
<b>8</b>	x	x	x	x	4	1.00
<b>9</b>	x	x	x	x	4	1.00
<b>10</b>	x	x	x	x	4	1.00
<b>11</b>	x	x	x	x	4	1.00
<b>12</b>	x	x	x	x	4	1.00
<b>13</b>	x	x	x	x	4	1.00
<b>14</b>	x	x	x	x	4	1.00
<b>15</b>	x	x	x	x	4	1.00
<b>16</b>	x	x	x	x	4	1.00
<b>17</b>	x	x	x	x	4	1.00
<b>18</b>	x	x	x	x	4	1.00
<b>19</b>	x	x	x	x	4	1.00
<b>20</b>	x	x	x	x	4	1.00
<b>21</b>	x	x	x	x	4	1.00
<b>22</b>	x	x	x	x	4	1.00
<b>23</b>	x	x	x	x	4	1.00
<b>24</b>	x	x	x	x	4	1.00
<b>25</b>	x	x	x	x	4	1.00
<b>Proportion Relevant</b>	0.96	0.92	1.00	0.96	Mean I-CVI	<b>0.96</b>

Upon reviewing the results obtained by ACP and CVI, the questionnaire was considered to be highly valid and relevant to the study. The questionnaire was then distributed among software industries using the Google forms. The intended scope of the study was to target the software industries of Pakistan. The final questionnaire which was used is attached in the appendices as well as appendix A.

### **3.8 Summary**

The problem statement was identified and research objectives were taken into consideration. To meet those objectives, a set of questions was created and from that set, a few questions were picked to be the part of the questionnaire. The questionnaire was then tested for content validity and average congruency percentage. It was done to ensure that no irrelevant

question gets rolled out in the survey eventually causing hinderance for the researchers in collecting the responses or to lead towards any sort of research bias. Moreover, in order to have a concise, accurate and easy to analyze data, it was necessary to apply the validation techniques. Upon successfully passing these techniques and making certain amendments, questionnaire was distributed online to the respondents. Finally, the thorough analysis of the collected data will be done and a report will be generated on it. Proper data analysis will lead us towards coming up with accurate, concise and concrete conclusions.



# CHAPTER 4

## SURVEY RESULTS & ANALYSIS

### 4.1 Overview

Chapter 3 has discussed about various methods to conduct research and survey as a research methodology. It has further emphasized on why was the survey chosen in our study as a research methodology. This chapter will discuss the results obtained from the survey and their analysis.

### 4.2 Survey Conduction

A survey was conducted based on the guidelines provided by Mark Kasunic (2005) in the book Software Engineering Institute (SEI) [89]. The questionnaire had two sections, Section I named as “Personal Information” and Section II as “Performance Rewards”, it comprised of 25 questions in total. The questionnaire is attached in Appendix A. Moreover, the scope of intended audience was calculated by the techniques given by Sekaran [15]. As per the Sekaran’s technique, we assumed the population of managers and employees working in the 10 known Software Industries of Pakistan to be 500 out of which, we considered 200 to be involved in the survey. Margin of error was considered to be 5% along-with 95% to be their confidence level, the sample size calculated was of 132 respondents.

Initially, link containing the survey questionnaire was rolled out in September 2021, unfortunately it did not meet the sufficient amount of responses and had to be rolled out again in December 2021. By January 2022, only 38/132 were received which was a serious cause of

concern. To further solve this issue, on ground visits were carried out to the industries and employees were interviewed to identify the reason of their non-willingness to participate. It was identified that the question containing “Company Name” was actually the issue because of which, the participants were reluctant to give answers. The question was removed as it did not have any direct or indirect impact on the research. The questionnaire was rolled out again. In February the responses surprisingly got increased to 55, at the end of March, the responses got increased to 80. Since the research was lagging behind the desired schedule due to a smaller number of responses, on ground visits were carried out in different local Software Industries of Rawalpindi and Islamabad and they were requested to participate in the survey as well as engage their offices in other stations to participate as well.

This resulted as a fruitful activity and we managed to receive 141 responses, 9 more than the intended population of 132 respondents at least.

### 4.3 Descriptive Statistics of Respondents

On macro level, considering the four major cities of Pakistan. Islamabad, Rawalpindi, Lahore and Karachi we had intended to get at least 34-35 responses from each of these major cities. When the actual conduction of the survey took place, following results were received. Table 4.1 shows the number of responses we received from each city.

*Table 4.1: Responses based on Cities*

<b>CITY</b>	<b>FREQUENCY</b>	<b>PERCENT</b>
<b>ISLAMABAD</b>	40	28%
<b>RAWALPINDI</b>	29	21%
<b>LAHORE</b>	38	27%
<b>KARACHI</b>	34	24%
<b>TOTAL</b>	<b>141</b>	<b>100%</b>

It was observed that most responses were received from Islamabad being 28%, Lahore stood second with 27% responses. The number of responses received from Karachi were 24% and Rawalpindi stood on last having 21% responses.

It was also important to check the maturity level of the employees in the organization they were working in to ensure that their responses are considered authentic and do not cause any hinderance in the research.

For that purpose, 2 questions were included in the survey. One was to measure their duration of working in the organization and other one was to measure the nature of their stay. The responses we received are reflected in the table 4.2 and 4.3 below.

*Table 4.2: Responses based on Duration of Employment*

<b>DURATION</b>	<b>FREQUENCY</b>	<b>PERCENT</b>
<b>&lt; 1 YEAR</b>	35	25%
<b>1 – 3 YEARS</b>	63	45%
<b>3 – 6 YEARS</b>	25	18%
<b>6+ YEARS</b>	18	12%
<b>TOTAL</b>	<b>141</b>	<b>100%</b>

It was a good omen that only 25% of respondents had a tenure earlier than a year and the rest of them had a good duration of employment in their organizations. i.e. Around 45% of respondents had been working for 1-3 years, 18% had been working for 3-6 years and 12% were definitely mature enough having the duration of employment more than 6 years.

The nature of stay of the employees is here by being shown in Table 4.3.

*Table 4.3: Responses based on Nature of Employment*

<b>NATURE</b>	<b>FREQUENCY</b>	<b>PERCENT</b>
<b>FULL-TIME</b>	83	59%
<b>PART TIME</b>	35	25%
<b>PROJECT BASED</b>	23	16%
<b>TOTAL</b>	<b>141</b>	<b>100%</b>

It was quite assuring to measure that around 59% of the respondents were having a full-time employment in the organizations, 25% respondents were working as a part-time employee and 16% employees were serving the organization on project basis.

It was also important to have information about the designation of the respondents to help the future researchers work on pattern-based studies of the responses. Table 4.4 reflects the responses.

**Table 4.4:** Responses based on Designation

<b>DESIGNATION</b>	<b>FREQUENCY</b>
<b>SQA ANALYST</b>	<b>10</b>
<b>PROJECT MANAGER</b>	<b>6</b>
<b>IT HEAD</b>	<b>1</b>
<b>MOBILE APPLICATION ENGINEER (IOS)</b>	<b>1</b>
<b>FRONTEND DEVELOPER</b>	<b>8</b>
<b>IT SUPPORT ENGINEER</b>	<b>6</b>
<b>QA ENGINEER</b>	<b>3</b>
<b>CHIEF OPERATING OFFICER (COO)</b>	<b>1</b>
<b>MARKETING STRATEGIST</b>	<b>2</b>
<b>SOFTWARE DEVELOPER</b>	<b>14</b>
<b>SOFTWARE ENGINEER</b>	<b>23</b>
<b>FLUTTER DEVELOPER</b>	<b>3</b>
<b>FRONTEND TEAM LEAD</b>	<b>1</b>
<b>HR/ADMIN &amp; IT MANAGER</b>	<b>1</b>
<b>ASO</b>	<b>1</b>
<b>JR. SOFTWARE ENGINEER</b>	<b>2</b>
<b>SR. SOFTWARE ENGINEER</b>	<b>1</b>
<b>SITE RELIABILITY ENGINEER</b>	<b>3</b>
<b>LEAD FRONTEND ENGINEER</b>	<b>1</b>
<b>PRINCIPAL SOFTWARE ENGINEER</b>	<b>3</b>
<b>SOFTWARE TESTER</b>	<b>5</b>
<b>SENIOR QA</b>	<b>11</b>
<b>MOBILE APPLICATION ENGINEER</b>	<b>4</b>
<b>DATA SCIENTIST</b>	<b>5</b>
<b>FULL STACK DEVELOPER</b>	<b>12</b>
<b>SYSTEM ENGINEER</b>	<b>3</b>
<b>SOFTWARE ARCHITECT</b>	<b>1</b>
<b>CHIEF ARCHITECT</b>	<b>2</b>
<b>CLOUD ENGINEER</b>	<b>6</b>
<b>ASSOCIATE SOFTWARE ENGINEER</b>	<b>4</b>
<b>JR ANGULAR DEVELOPER</b>	<b>2</b>
<b>TOTAL</b>	<b>141</b>

## 4.4 Result Analysis relating to Performance Rewards

This section reflects the current situation of the recognition system in the Pakistani Software Industries. The purpose of conducting these analytics was to get better insights about the rewards system of the industries and measure the psychological impact and influence in turnover.

### 4.4.1 Performance Rewards System in Pakistani Software Industries

The first and most important order of business was to determine whether any recognition system was being implemented by the organization or not? Figure 4.1 contains the responses which were received as an answer to this question.



*Figure 4.1: Performance Rewards System in Pakistani Software Industry*

As shown in the Figure 4.1, gladly there were only 11/141 responses indicating that there is no sense of recognition in the culture of the industries, however it is shocking to observe that the recognition is rarely offered to the employees, 76/141 respondents reported it. 54/141 respondents reported that the industries they work in often offers recognition to their employees. The overall percentage of no recognition at all too rare cases of recognition being offered to the employees was calculated to be 61.7% which is highly alarming.

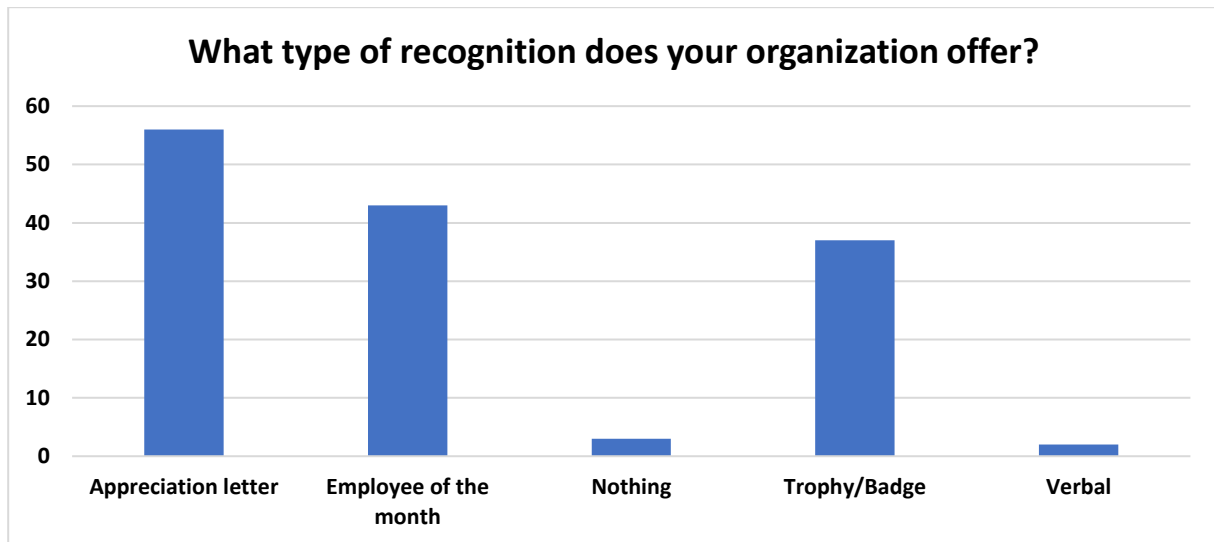
An organization offering recognition to its employees is definitely considered a good organization, however the regularity of the recognition is of great essence as well. Figure 4.2 reflects the frequency of the recognition being offered by the Pakistani Software Industries to their employees.



**Figure 4.2:** Frequency of Performance Rewards being offered in Pakistani Software Industry

The analytics calculated for the frequency were quite alarming. As shown in the Figure 4.2, only 31/141 respondents reported that they were often receiving the recognition from the industries they worked in. On the other hand, 3/141 reported that they never received any recognition whatsoever. The rare cases of receiving recognition were reported by 47/141 respondents while 60/141 respondents claimed to be receiving the recognition from time to time. The overall percentage of alarming responses was 78%, consisting of individuals who either never received recognition, rarely received it or only received it irregularly on time-to-time basis which is high.

After analyzing the frequency, it was also important to identify what type of performance rewards were being offered to the individuals working in the Software Industries of Pakistan. The identification of the nature of performance rewards was significant to measure whether is it impacting the performance of employees and playing part in the employee turnover? Figure 4.3 below reflects the type of performance rewards being offered to the employees working in the Software Industry of Pakistan.



**Figure 4.3:** Types of Performance Rewards being offered in Pakistani Software Industry

As shown in the above figure, 56/141 respondents reported to be receiving *appreciation letter* from their organization, 43/141 claimed to be getting *employee of the month* titles. 37/141 respondents reported to be receiving *trophy/badge* as performance rewards from their organization. 2/141 individuals reported that they received *verbal* recognition while 3/141 respondents reported that they were not being rewarded with any sort of recognition unfortunately.

Apart from the above-mentioned types of rewards being offered to the employees working in the Pakistani software industries, questions regarding a few notable rewards mentioned in the *Chapter No. 2, Section No. 2.5. Reward Practices & Types* were also asked.

#### 4.4.1.1 Stock Options as Performance Reward

As mentioned in the *Chapter No. 2, Section No. 2.5. Reward Practices & Types*, The Employee Stock options are offered as a type of equity compensation to the employees by different organizations. The individuals were asked whether they were being given an option to buy stock options. Figure 4.4 below illustrates the responses of this question.



*Figure 4.4: Stock Options as Performance Reward*

Around 56/141 respondents reported that the organization did not offer stock options to be bought by the employees, 77/141 of the respondents said that the stock options were being offered but only to the executive employees. While on the other hand, 8/141 respondents reported that stock options were being offered to all the employees working in their organization. The alarming response has a percentage of 34.7% in this case which is low.

It is worth mentioning here that offering stock options to the employees strengthens the sense of ownership of the organization in them and in return making them work harder for the profits of their organization.

#### **4.4.1.2 Company Swag as a Performance Reward**

As mentioned in the *Chapter No. 2, Section No. 2.5. Reward Practices & Types*, Company Swag is also offered to the employees as a performance reward to thank them for their services while promoting brand recognition. Figure 4.5 reflects the answer to whether the Company Swag is being offered as a performance reward in the Pakistani Software Industries?





*Figure 4.5: Company Swag as a Performance Reward*

Unfortunately, 55/141 respondents reported that they were not being offered with company swag. 49/141 respondents said that they were being given the company swag but rarely. However, 37/141 respondents claimed that they were often being given the company swag. The alarming responses in this case have a combined percentage of 64.5% which is high.

#### **4.4.1.3 Monetary Reward as Performance Reward**

As mentioned in the *Chapter No. 2, Section No. 2.5. Reward Practices & Types*, monetary rewards are also called extrinsic incentive. They are of financial nature and known to induce the best performance amongst employees. Figure 4.6 reflects on the status of monetary rewards being offered in the Pakistani Software industries.



**Figure 4.6:** Monetary Reward as Performance Reward

Gladly, the number of respondents claiming to not getting any sort of monetary reward was just 19/141. However, 37/141 respondents answered that they rarely got any monetary reward. 60/141 respondents claimed that they were getting monetary reward on time-to-time basis while 25/141 respondents said to be often receiving the monetary rewards. The alarming responses in this case have a combined percentage of 72% which is quite high.

It was also deemed important for the research to have an idea about the amount of monetary rewards being offered by the Pakistani Software Industries. Figure 4.7 reflects the received responses.

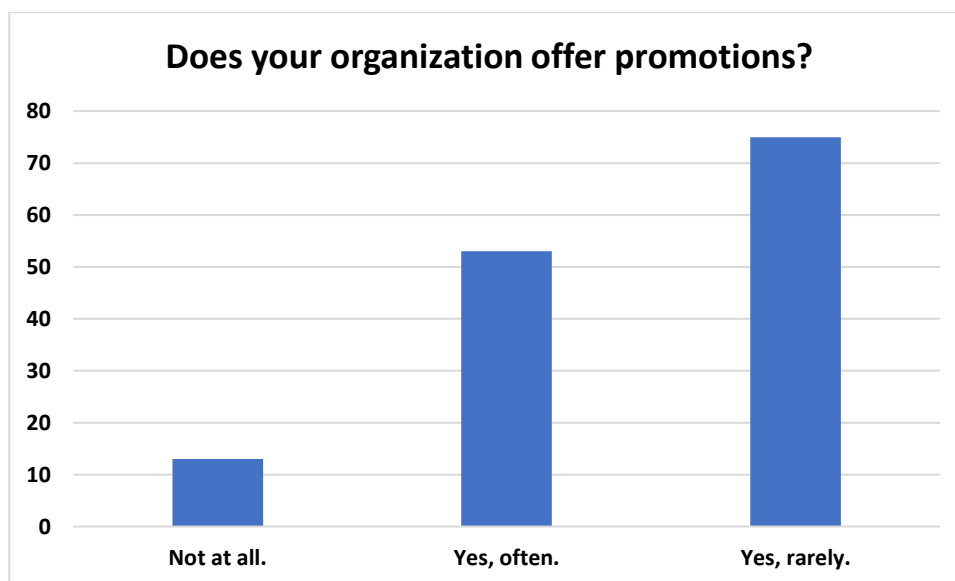


**Figure 4.7:** Amount of Monetary Reward(s)

Around 65/141 respondents answered that they were getting less than or equal to 5000PKR as monetary reward(s), 7/141 respondents claimed that they did not get any monetary reward from the organization. 51/141 respondents seemed to be getting around 5100-10000PKR from the organization as monetary reward(s) while 18/141 respondents seemed to be getting more than 10000PKR. The number of alarming responses in this case have a combined percentage of 44.7% which is moderate.

#### 4.4.1.4 Promotion as a Performance Reward

As mentioned in the *Chapter No. 2, Section No. 2.5. Reward Practices & Types*, Promotions can also be offered to the employees as a performance reward to further put high-level work responsibility on that employee. It often comes with improved monetary package as well. Figure 4.8 below reflects whether promotions are being offered in the software industries of Pakistan.



**Figure 4.8:** Promotion as a Performance Reward

Unfortunately, 13/141 respondents reported that their organization does not offer promotions at all. 75/141 respondents said that the promotions were being offered rarely. However, 53/141 respondents answered that their organization often offered promotions. The combined percentage of alarming responses in this case is 54.6% which is moderate.

It was also relevant to ask about the level of promotions being offered in the Pakistani software industries. Figure 4.9 reflects the responses received in this regard.



*Figure 4.9: Level of Promotions*

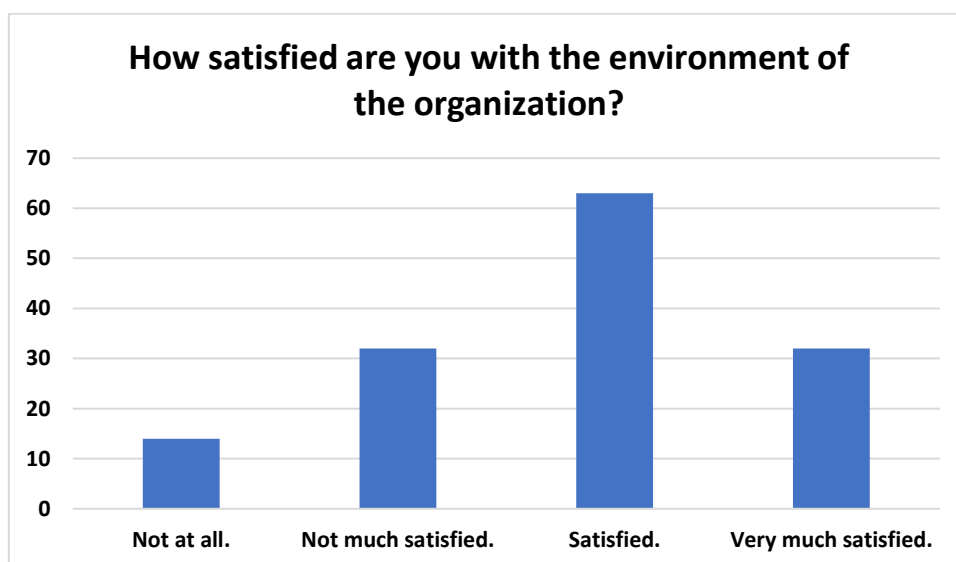
Around 64/141 respondents answered that their organization offered promotions up till Managerial level. 61/141 respondents reported that only mid-level promotions were being offered in their organization. 9/141 respondents said that their organization offered directorial level promotions while only 7/141 respondents claimed that their organization offered partner level promotions.

#### **4.5 Result Analysis relating to Psychological Impact of Performance Rewards**

This section reflects the impact of performance rewards on the psychological behavior of the employees working in the Pakistani Software Industries by mapping the responses to the expected tenure of the employee in an organization. The purpose of conducting these analytics was to measure the psychological impact of performance rewards on the employees.

### 4.5.1 Environment of the Organization

It was considered important to ask a question about the environment of the organizations in which the respondents worked to understand and ensure that the responses gathered were not being bias because of issues in the working environment of the industries. Figure 4.10 reflects the responses gathered as a result.

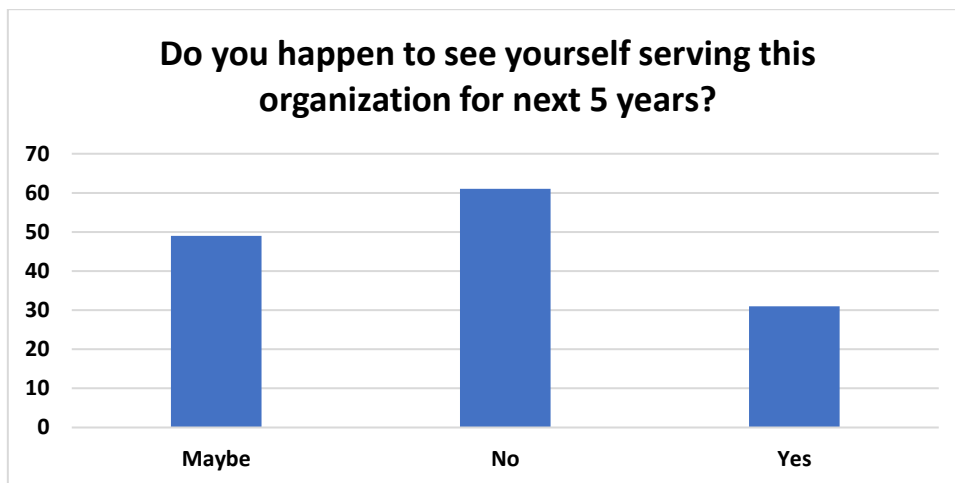


*Figure 4.10: Environment of the Organization*

It was assuring to collect that 32/141 respondents are very much satisfied in their organization, 63/141 respondents reported that they are satisfied. On the other hand, 32/141 claimed that they were not much satisfied and 14/141 said that they were not at all satisfied with the environment of the organization. This left us with a reading that around 59% of the respondents were satisfied and had their responses genuinely based on the condition of remuneration, incentives and performance rewards being offered by their organization.

### 4.5.2 Duration of Service

A direct question was asked in order to map the other responses with it, to compare and analyze the influence of the rewards discussed in the *Chapter No. 4, Section No. 4.3.1. Performance Rewards System in Pakistani Software Industries* on the mindset of an employee regarding his or her duration of service in the organization. Figure 4.11 reflects the responses of that significant question.



*Figure 4.11: Duration of Service*

As indicated in the Figure 4.11, 61/141 employees answered that they will not serve the organization for the next 5 years. 49/141 respondents were unsure about their stay in the organization while 31/141 respondents were confident that they will serve the organization for the next 5 years. The alarming responses when combined give out the percentage of 68.3% which is high.

#### 4.5.3 Psychological Impact of Reward/Recognition and their Frequency

The responses obtained in *Chapter No. 4, Section No. 4.4.2. Duration of Service* were compared with the questions regarding the offering of performance rewards and their frequency in the Pakistani Software Industries as presented in the *Chapter No. 4, Section No. 4.3.1. Performance Rewards System in Pakistani Software Industries*, the analysis got clear. Table 4.4 reflects the comparison of the three questions.

*Table 4.5: Duration of Service v. Offering/Frequency of Performance Rewards for Yes Responses*

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>	<i>Does your organization offer recognition to its employees?</i>		<i>How often do you receive reward/recognition from the organization?</i>		
		Yes, often	Yes, rarely	Often	Sometimes	Rarely
<b>Response(s)</b>	Yes	Yes, often	Yes, rarely	Often	Sometimes	Rarely
<b>Count</b>	31	27	4	20	7	4

As shown in the Table 4.4, when the respondents were questioned whether they are going to stay in the organization, 31/141 said yes. Out of those 31, 27 reported that their organization often offers recognition to its employees while 4 said that the organization rarely offers. Moreover, 20/31 said they often receive the reward/recognition from the organization, 7/31 said that they receive it on time-to-time basis while 4/31 said that they rarely receive it. It is to ponder upon the fact that the offering of reward/recognition is present in all of the responses. Moreover, even the question regarding frequency reflects that the employees who answered “yes” are often receiving the reward/recognition from the organization and hence it can be safely deduced that the employees chose “yes” based upon this presence.

On the other hand, Table 4.5 contains the comparison of these three questions focusing on the respondents who don't see themselves serving the organization for a longer period of time.

**Table 4.6:** *Duration of Service v. Offering/Frequency of Performance Rewards for No responses*

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>	<i>Does your organization offer recognition to its employees?</i>			<i>How often do you receive reward/recognition from the organization?</i>		
		Yes, often	Yes, rarely	Not at all	Often	Sometimes	Rarely
<b>Response(s)</b>	No	Yes, often	Yes, rarely	Not at all	Often	Sometimes	Rarely
<b>Count</b>	61	8	48	5	5	28	28

As shown in the Table 4.5, when the respondents were questioned whether they are going to stay in the organization, 61/141 said no. Out of those 61, 8 said that their organization often offers recognition to their employees, 48 said that their organization offers the recognition rarely. 5/61 respondents claimed that their organization does not offer recognition at all. Upon asking the frequency of the reward/recognition, only 5/61 said that they often receive the reward/recognition, 28/61 said that they receive it on time-to-time basis while 28/61 reported that they rarely receive the reward/recognition. Based on these statistics, it can be observed that the employees who are sure that they are not going to serve the organization for next five years are not being recognized/rewarded often and this can be safely concluded as the reason of their decision regarding quitting the organization.

#### 4.5.4 Psychological Impact of Monetary Rewards

Monetary Rewards being one of the prominent types of performance rewards as mentioned in the Chapter No. 2, Section No. 2.5. Reward Practices & Types were also discussed with the employees. Figure 4.12 reflects the responses which were received in this regard.



*Figure 4.12: Satisfaction with Monetary Rewards*

As indicated in the figure above, unfortunately the highest number of respondents reported that they were not much satisfied by with the monetary rewards being offered by their organization, 49/141 responses were of such nature. 25/141 respondents claimed that they were not satisfied by the monetary rewards at all. 41/141 respondents however said that they were satisfied and 26/141 respondents claimed to be fully satisfied with the monetary rewards system of their organization. The combined percentage of alarming responses in this case is 45.9% which is moderate.

These responses were also compared with the question regarding the duration of service of the employees to analyze the impact of monetary rewards on the decision of employees' regarding working in an organization. Table 4.6 reflects the outcome of the comparison with "yes" responses from the duration of stay.



**Table 4.7: Duration of Service v. Satisfaction with Monetary Rewards for Yes responses**

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>	<i>Are you satisfied with the monetary reward(s) being offered by your organization?</i>			
Response(s)	Yes	Not much satisfied	Not satisfied at all.	Satisfied	Very much satisfied
Count	31	1	2	6	22

As represented in the Table 4.6, out of the 31 employees who said that they are sure about serving the organization for next five years, only 1 claimed to be not much satisfied and 2 claimed to be not satisfied at all with the monetary rewards being offered by their organization. On the other hand, 6/31 employees reported that they were satisfied and 22/31 claimed to be very much satisfied by the monetary rewards being offered by their organization. Taking these results into account, it can be clearly seen that majority of the people i.e. 28/31 employees, making up 90% among the ones who said that they are definitely going to continue serving the organization for next 5 years are highly satisfied with the monetary rewards being offered by their organization and it can be concluded that their choice of serving the organization for a longer period has been somewhat influenced by this satisfaction.

On the other hand, Table 4.7 contains the comparison of these questions focusing on the respondents who don't see themselves serving the organization for the next 5 years.

**Table 4.8: Duration of Service v. Satisfaction with Monetary Rewards for No responses**

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>	<i>Are you satisfied with the monetary reward(s) being offered by your organization?</i>		
Response(s)	No	Not much satisfied	Not satisfied at all.	Satisfied
Count	61	30	13	18

The results reflected in the above table clearly indicate that 30/61 people who are sure about not serving the organization for a longer period of time are not much satisfied with the monetary rewards being offered by their organization. 13/61 respondents are not satisfied at all. While on the other hand, 18/61 respondents are satisfied. The responses containing dissatisfaction are 43/61 making up around 70.4% of the respondents who are not going to serve the organization for the next five years. It can be safely concluded that their decision of leaving the organization is somewhat influenced by their dissatisfaction with the monetary rewards being offered by their organization.

#### 4.5.5 Psychological Impact of Promotion

Promotion is also known to be one of the influential performance rewards as mentioned in the Chapter No. 2, Section No. 2.5. Reward Practices & Types. Table 4.8 reflects the comparison of the question regarding the offering of promotion in the Pakistani Software Industries with the number of Yes responses from duration of service.

**Table 4.9:** *Duration of Service v. Offering of Promotion for Yes responses*

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>			
	<i>Does your organization offer promotions?</i>			
Response(s)	Yes	Yes, often.	Yes, rarely.	Not at all.
Count	31	25	5	1

As shown in the table above. 25/31 respondents reported that their organization often offers promotions, 5/31 respondents said that it rarely offers any promotions. There was only 1 response claiming that the organization fails to offer any promotions. 30/31 respondents in this case reported that the promotions are being offered by the organization, which is 96.7% of the respondents who answered that they will continue serving the organization for coming five years. Hence, it is safe to conclude that their decision to stay in the organization is somehow being influenced by the good promotion system of their organization.

On the other hand, Table 4.9 contains the comparison of these questions involving the respondents who don't see themselves serving the organization for the next 5 years.

**Table 4.10: Duration of Service v. Offering of Promotion for No responses**

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>	<i>Does your organization offer promotions?</i>		
		No	Yes, often.	Yes, rarely.
<b>Response(s)</b>	No	Yes, often.	Yes, rarely.	Not at all.
<b>Count</b>	61	12	46	3

It is quite evident from the above table that 12/61 respondents have reported that their organization often offers promotions. On the other hand, 46/61 respondents have unfortunately reported that their organization rarely offers promotions. Sadly, there are 3/61 respondents claiming that their organization unfortunately never offers any promotions to their employees. The combined percentage of alarming responses in this case is 80.3% which is quite high. Hence, it can be concluded that the irregular promotion system has a significant impact on the decision of employees regarding leaving their organizations.

#### **4.5.6 Psychological Impact of Salary Increments**

Salary Increments are one of the effective performance rewards which reduce the employee turnover as discussed in the Chapter No. 2, Section No. 2.5. Reward Practices & Types. Basically, salary increments are monetary benefits which are rewarded to the employees after a tenure as an addition to their base salary. Table 4.10 reflects the comparison of the question regarding the offering of increments in the Pakistani Software Industries with the respondents who tend to see themselves serving the organization for the coming 5 years.

**Table 4.11: Duration of Service v. Offering of Salary Increments for Yes responses**

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>	<i>Does the organization offer increments in the salary?</i>	
<b>Response(s)</b>	Yes	Yes, periodic.	Yes, upon project assignment.
<b>Count</b>	31	28	3

It is evident from the above table that 28/31 respondents answered that they are being periodically awarded with the increments in their salary while 3/31 employees reported that they are awarded the increments upon the assignment of a new project. A periodic increment system is always considered the healthy one and it can be concluded that the periodic and expected increments in the salary have gained the loyalty of the employees for the coming 5 years.

On the other hand, the responses were also compared with the employees who don't see themselves serving the organization for the next 5 years. Table 4.11 reflects the answers of the respondents who are sure that they will not serve the organization for the coming 5 years.

**Table 4.12: Duration of Service v. Offering of Salary Increments for No responses**

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>	<i>Does the organization offer increments in the salary?</i>			
<b>Response(s)</b>	No	Yes, periodic.	Yes, upon project assignment.	Yes, upon task completion.	Not at all.
<b>Count</b>	61	23	13	21	4

As it can be seen in the above table that 23/61 respondents are getting increments periodically whereas 13/61 are getting the increments upon project assignment, 21/61 are getting the increments upon the completion of a task and unfortunately, 4/61 respondents are not getting increments at all. Periodic increments are handy as compared to the unexpected

increments as people make their financial plans based upon periodic increments. Hence, in this case, the combined percentage of number of alarming responses is 38/61 which is 62.2% and is high and can be considered as one of the reasons that the respondents have decided to quit their organization.

#### 4.5.7 Psychological Impact of Company Swag

In the Chapter No. 2, Section No. 2.5. Reward Practices & Types, Company Swag has been mentioned as one of the performance rewards to boost the motivation of employees so the question regarding the duration of service of the respondents was also compared with the question regarding the company swag merchandise being offered by the industries. Table 4.12 reflects the responses of the people who are optimistic about their duration of service in the organization for the coming 5 years.

**Table 4.13:** Duration of Service v. Offering of Company Swag for Yes responses

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>	<i>Does your organization offer company swag to its employees?</i>		
Response(s)	Yes	Yes, often.	Yes, rarely.	Not at all.
Count	31	20	8	3

It is quite cheerful to observe that the people 31 respondents who answered that they will continue serving the organization for next 5 years are either getting the company swag often as reported by 20/31 respondents or are getting them but rarely 8/31. Only 3 respondents said that they are not getting any company swag at all. It can be safely assumed that the decision of employees to serve the organization for next 5 years has somewhat been influenced by company swag as well.

On the other hand, when the same set of questions were compared for the people who have decided that they will not be serving the organization for the coming 5 years, results were not surprising. Table 4.13 indicates the gathered responses.

**Table 4.14:** Duration of Service v. Offering of Company Swag for No responses

Questions	<i>Do you happen to see yourself serving this organization for next 5 years?</i>		<i>Does your organization offer company swag to its employees?</i>		
	No	Yes, often.	Yes, rarely.	Not at all.	
<b>Response(s)</b>	No	Yes, often.	Yes, rarely.	Not at all.	
<b>Count</b>	61	4	16	41	

It is evident from the above table that only 4/61 respondents are receiving the company swag often by their organization and 16/61 respondents do receive the company swag but rarely. This only makes about 32.8% of the respondents. Whereas, the other 67.2% respondents reported that they are not receiving any company swag at all. It is very safe to conclude that the decision of employees to quit serving the organization has been influenced by the failure of organization to provide company swag.

If we observe the correlation between the duration of stay of the respondents and the factors in comparison such as increments, promotions, satisfaction of monetary rewards and their frequency and recognition, we get to see that correlation exists between all of these factors as shown in the figure 4.13 below.

		Correlations					
		Future_Plan	Offered_Increments	Monetary_Rewards	Promotion_Offered	Reconition_Offered	Freq_Recognition
Future_Plan	Pearson Correlation	1	.260**	.346**	.339**	.307**	.307**
	Sig. (2-tailed)		.002	.000	.000	.000	.000
	N	141	141	141	141	141	141
Offered_Increments	Pearson Correlation	.260**	1	.228**	.326**	.441**	.315**
	Sig. (2-tailed)	.002		.007	.000	.000	.000
	N	141	141	141	141	141	141
Monetary_Rewards	Pearson Correlation	.346**	.228**	1	.424**	.465**	.602**
	Sig. (2-tailed)	.000	.007		.000	.000	.000
	N	141	141	141	141	141	141
Promotion_Offered	Pearson Correlation	.339**	.326**	.424**	1	.578**	.571**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	141	141	141	141	141	141
Reconition_Offered	Pearson Correlation	.307**	.441**	.465**	.578**	1	.607**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	141	141	141	141	141	141
Freq_Recognition	Pearson Correlation	.307**	.315**	.602**	.571**	.607**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	141	141	141	141	141	141

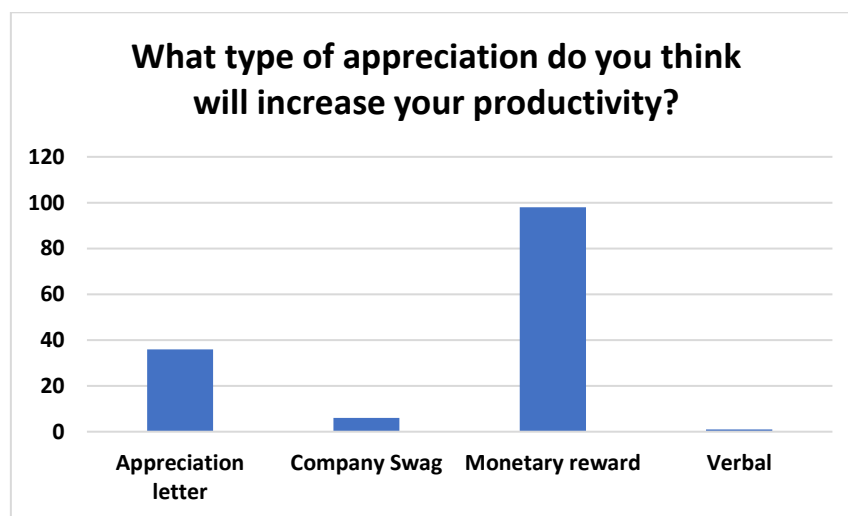
\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Figure 4.13:** Correlation between Duration of Stay v. Other Variables

It is quite evident from the above figure 4.13 that the correlation is positive among all the variables. The variable influencing the future plan of employees the most is monetary rewards having value of ( $r=.346^{**}$ ), it means that the employees intending to leave the organization or stay are highly influenced by the culture of monetary rewards in the organization. Then comes the promotions variable with the value of ( $r=.339^{**}$ ), it means that no or lack of promotions are influencing the employees in leaving the organization. Then we have the offering of recognition and its frequency, both having the value of ( $r=.307^{**}$ ). Lastly and surprisingly, increment. The annual fixed increment has an impact as well on the employee however it's the least i.e. ( $r=.260^{**}$ ) as compared to the rest of 5 variables.

#### 4.6 The Best Performance Reward

It was considered significant to ask the respondents about the performance reward which will tend to increase their productivity. Figure 4.14 indicates the responses as reported by 141 respondents.



*Figure 4.14: The Best Performance Reward*

As indicated in the above figure 4.14, 1/141 respondents claimed that verbal appreciation will increase his/her productivity. 6/141 respondents said that company swag will do the trick for him/her. 36/141 respondents believed on appreciation letter to be boosting agents for their productivity while 98/141 respondents chose monetary reward to be their motivating factors. Thus, monetary rewards being the choice of 69.5% of the respondents, are

being highly recommended to the managers that will help them minimize the turnover in their organization.

The monetary reward may be in the form of a cash bonus or annual increment.

## **4.7 Summary**

This chapter has presented results of the survey conducted in the Pakistani software Industry regarding the performance rewards being offered in them. The psychological impact of those performance rewards has also been measured by comparing the different questions answered by the respondents and analyzing them. Furthermore, the best performance reward has also been suggested to the managers based on the option chosen by the maximum number of respondents.



## CHAPTER 5

### CONCLUSION & FUTURE WORK

#### 5.1 Overview

Chapter 4 has illustrated and discussed the results of the survey. This chapter presents the conclusions that have been made on the basis of the study and it also gives some suggestions regarding the work that can potentially be done in the similar area.

#### 5.2 Research Summary

Employee retention is important for an organization as much as its strong business model and operational schema. In Pakistan, the retention of employees is usually neglected and the organizations rather put emphasis on their policies and functional mechanism, which eventually in majority cases leads to an employee leaving the organization and walking away with unfinished work, unmet deadlines and causing financial as well as reputational loss. In order to ensure that the turnover problem is mitigated, the causes were to be studied along with the strategies to minimize turnover. This study was performed as an effort to minimize the turnover of employees working in the software industry of Pakistan. For this purpose, performance rewards were considered to be the retention strategy and an in-depth analysis was required of how effective can performance rewards be in retaining an employee, to measure that, a questionnaire was made and disseminated online. Before circulating the questionnaire, it was checked for validity and modified accordingly. The questionnaire contained questions relating to performance rewards with an intention to measure their impact on the employee turnover and retention. The research intended to answer three questions: *What types of rewards are being provided to software industry employees for their performance? What is the*

*psychological effect of the performance rewards on an employee? and Which key performance rewards tend to be most effective in retaining an employee?*

In total, 141 responses were received from the individuals having a technical role in the software industries of Pakistan. Analytics were performed on these gathered responses to answer the research questions and come up with a conclusion.

### **5.3 Fulfillment of Research Objectives**

The research objectives were achieved after the analysis of the results. i.e., Information about the types of performance rewards currently being offered in the Pakistani software industries was gathered such as salary increments, promotions, recognition, monetary rewards, verbal and written appreciation as well as company swag. Significance of the performance rewards was measured which came out to be high as majority of the participants who seemed to be deciding to switch their organizations were the ones who were not receiving performance rewards and the ones who responded that they are willing to stay were getting the right kind of performance rewards and that too, frequently. This also helped the researcher conclude that the performance rewards have a significant psychological effect on an employee about the organization. Most effective performance reward which will help the managers in controlling employee turnover in their organizations was also determined which came out to be monetary reward (cash bonus), identification of dependent and independent variable was also carried out and, in this case, the employees' stay in an organization came out to be the variable dependent upon how often does s/he receive recognition, increment, promotion and/or any reward of monetary nature. The dependency was clear and directly proportional to each other in majority of the cases.

### **5.4 Academic and Practical Contributions**

Academically, this study will contribute in enhancing the Business Analysis Body of Knowledge (BABOK) by adding value in understanding the dynamics of the software engineering industry. The practical contribution of this study will be lowering the employees'

turnover if the performance reward system of the organization is improved by considering the facts presented in this study. Furthermore, if a good reward system is introduced and managed by an organization, it will help in generating fruitful output which will be beneficial for the achievement of the business goals. On a broader scope, if multiple software industries implement and modify their performance reward system on the basis of the facts presented in this study, the products and projects they end up making will be of improved quality which will definitely bring a good name for Pakistan globally. It might also end up in improving the financial status of the country as well if the world gets to believe in the quality of the software projects being developed in Pakistan. Lastly and most importantly, the unemployment condition of Pakistan will also be improved if the people get retained by the organizations.

## **5.5 Conclusion**

After the successful analysis of the gathered responses, it was observed that some performance rewards such as salary increments, promotions, recognition, monetary rewards such as cash bonuses and even company swag have a significant impact on the employees when it comes to retention and when an organization fails to take these factors into account, the employee gets demotivated and decides to leave as indicated by the 61/141 respondents who intend to leave the organization in the next 5 years, 43 employees were not satisfied with the monetary rewards, 49 rarely received any promotion, 38 received conditional increments instead of periodic and 57 did not or rarely got any company swag from their organization. Given the human nature, it is quite logical and not surprising at all. As a whole, monetary rewards turned out to be the best all-rounding performance reward type which stood beneficial for majority of the cases and chosen by the 69.5% of the research participants but then again, as they say that money cannot buy happiness. There were some cases reported where verbal and written appreciation worked as a charm for 25.6% respondents. Another surprising scenario was having such cases where performance rewards were being given to the employees but the reward frequency seemed to be the demotivating factor for the employees as reported by the 56/61 respondents who were sure to leave the organization in next 5 years and were being rewarded but rarely, this enlightened the researcher with the fact that a performance reward system to be considered as an effective one, its timeliness matters as well. Summing things up

for the managers and helping them take notes of worthy points is to suggest them to have a performance reward system built in place, which should be designed in such a way that that all the employees are observed personally and keenly, their requirements should be assessed in a way that they don't feel targeted and rather appreciated when they receive the performance reward aligned with their needs and on time. Only then can the employee turnover issue be resolved and taken care of. Otherwise, it will always be an all-in vain kind of scenario for the organizations and their managers no matter how much time, energy and hours of planning they have invested into their organization.

## **5.6 Limitations and Future recommendations**

The study has a few limitations which can lead to future work associated.

- In this study, the impact of performance rewards was measured as a whole. The future researchers can specifically measure the impact of monetary rewards which also came out to be the most impactful reward as reported by the respondents. This will exactly help them with the monetary value they should be suggesting to the managers and policy makers to be given as a performance reward to an employee having XYZ salary bracket.
- The study focused on the impact of performance rewards on employee turnover, future researchers can determine how can the performance rewards lead people into joining the software industries. It is important as well, if on the basis of the performance rewards system, efficient talent is attracted to join an organization, it might reduce the marketing cost, time and efforts required in the hiring process. It will not just minimize the chances of the employees leaving rather it will invoke a culture of positivity and productivity.
- The researchers can also work on the reasons of employee turnover in the software industry.
- More statistical tests can be performed to generalize the research beyond the correlation tests.

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# APPENDIX A

## RESEARCH QUESTIONNAIRE

### PERSONAL INFORMATION

- Q1.** Which city do you belong to?
- Q2.** What’s your role/designation in the organization?
- Q3.** For how long have you been working for the organization?  

<b>A.</b> < 1 Year	<b>B.</b> 1-3 Years
<b>C.</b> 3-6 Years	<b>D.</b> 6 Years+
- Q4.** What’s the status of your stay?  

<b>A.</b> Full-time	<b>B.</b> Part-time
<b>C.</b> Project based	<b>D.</b> Other: _____
- Q5.** For how many hours are you physically present at the office?  

<b>A.</b> 2-4 Hours	<b>B.</b> 4-8 Hours
<b>C.</b> 8 Hours +	<b>D.</b> Other: _____
- Q6.** Does your organization support work from home?  

<b>A.</b> Yes, often.	<b>B.</b> Yes, sometimes.
<b>C.</b> Circumstantial	<b>D.</b> Not at all.
- Q7.** Have you ever had to work overtime in the office?  

<b>A.</b> Yes, often.	<b>B.</b> Yes, sometimes.
<b>C.</b> Rarely.	<b>D.</b> Not at all.
- Q8.** Can you please specify your salary range?  

<b>A.</b> 20000-40000 PKR	<b>B.</b> 40000-60000 PKR
<b>C.</b> 60000-80000 PKR	<b>D.</b> 80000+ PKR
- Q9.** How satisfied are you with the environment of the organization?  

<b>A.</b> Very much satisfied.	<b>B.</b> Satisfied
<b>C.</b> Not much satisfied.	<b>D.</b> Not satisfied at all.
- Q10.** Do you happen to see yourself serving this organization for next 5 years?  

<b>A.</b> Yes	<b>B.</b> No
<b>C.</b> Maybe	<b>D.</b> Other: _____

## PERFORMANCE REWARDS

- Q11.** Does the organization offer increments in the salary?  
A. Yes, periodic.                      B. Yes, upon task completion.  
C. Yes, upon project assignment.    D. Not at all.
- Q12.** Do you get any monetary reward(s)?  
A. Yes, often.                              B. Yes, sometimes.  
C. Rarely.                                      D. Not at all.
- Q13.** What is the amount of monetary reward(s) being offered by your organization?  
A. Less than or equal to 5000          B. Less than or equal to 10000  
C. Greater than 10000                      D. Other: \_\_\_\_\_
- Q14.** Are you satisfied with the monetary reward(s) being offered by your organization?  
A. Very much satisfied.                      B. Satisfied  
C. Not much satisfied.                      D. Not satisfied at all.
- Q15.** Does your organization offer its stock options?  
A. Yes, to everybody.                      B. Yes, to executives only.  
C. Not at all.                                      D. Other: \_\_\_\_\_
- Q16.** Would you want to invest in the stock options of your organization?  
A. Yes    B. No  
C. Maybe    D. Other: \_\_\_\_\_
- Q17.** Does your organization offer promotions?  
A. Yes, often.                                      B. Yes, rarely.  
C. Not at all.                                      D. Other: \_\_\_\_\_
- Q18.** Up till which level does your organization offer promotions?  
A. Mid-Level                                      B. Manager  
C. Director    D. Partner
- Q19.** Would you be happy to get promoted to a higher position in your organization?  
A. Yes, definitely.                              B. Maybe  
C. Not at all.    D. Other: \_\_\_\_\_
- Q20.** Does your organization offer company swag to its employees?  
A. Yes, often.                                      B. Yes, rarely.  
C. Not at all.    D. Other: \_\_\_\_\_
- Q21.** Does your organization offer recognition to its employees?  
A. Yes, often.                                      B. Yes, rarely.  
C. Not at all.    D. Other: \_\_\_\_\_
- Q22.** What type of recognition does your organization offer?  
A. Appreciation letter                      B. Employee of the month  
C. Trophy/Badge                                      D. Other: \_\_\_\_\_

- Q23.** How often do you receive reward/recognition from the organization?
- |                  |                        |
|------------------|------------------------|
| <b>A.</b> Often  | <b>B.</b> Sometimes    |
| <b>C.</b> Rarely | <b>D.</b> Other: _____ |
- Q24.** Do you feel appreciated/valued in your organization?
- |                       |                           |
|-----------------------|---------------------------|
| <b>A.</b> Yes, often. | <b>B.</b> Yes, sometimes. |
| <b>C.</b> Rarely.     | <b>D.</b> Not at all.     |
- Q25.** What type of appreciation do you think will increase your productivity?
- |                           |                               |
|---------------------------|-------------------------------|
| <b>A.</b> Company Swag    | <b>B.</b> Appreciation letter |
| <b>C.</b> Monetary reward | <b>D.</b> Other: _____        |

## APPENDIX B

### DETAILS OF RESPONDENTS

<b>RESPONDENT NO.</b>	<b>CITY</b>	<b>DESIGNATION</b>	<b>EMPLOYMENT DURATION</b>	<b>EMPLOYMENT NATURE</b>
<i>Respondent No. 1</i>	Islamabad	SQA Analyst	1-3 Years	Full-time
<i>Respondent No. 2</i>	Islamabad	Project Manager	3-6 Years	Full-time
<i>Respondent No. 3</i>	Islamabad	IT Head	1-3 Years	Full-time
<i>Respondent No. 4</i>	Lahore	SQA Analyst	1-3 Years	Full-time
<i>Respondent No. 5</i>	Rawalpindi	Mobile Application Engineer (iOS)	3-6 Years	Full-time
<i>Respondent No. 6</i>	Rawalpindi	Frontend Developer	< 1 Year	Part time
<i>Respondent No. 7</i>	Islamabad	IT Support Engineer	< 1 Year	Full-time
<i>Respondent No. 8</i>	Rawalpindi	QA Engineer	< 1 Year	Full-time
<i>Respondent No. 9</i>	Islamabad	Chief Operating Officer (COO)	1-3 Years	Full-time
<i>Respondent No. 10</i>	Rawalpindi	Project Manager	1-3 Years	Full-time
<i>Respondent No. 11</i>	Rawalpindi	Marketing Strategist	< 1 Year	Full-time
<i>Respondent No. 12</i>	Islamabad	QA Engineer	1-3 Years	Full-time
<i>Respondent No. 13</i>	Rawalpindi	Software Developer	1-3 Years	Full-time
<i>Respondent No. 14</i>	Lahore	SQA Analyst	1-3 Years	Full-time
<i>Respondent No. 15</i>	Lahore	Software Developer	1-3 Years	Full-time
<i>Respondent No. 16</i>	Lahore	Software Engineer	1-3 Years	Full-time
<i>Respondent No. 17</i>	Lahore	Flutter developer	1-3 Years	Full-time
<i>Respondent No. 18</i>	Rawalpindi	Frontend Team Lead	1-3 Years	Full-time
<i>Respondent No. 19</i>	Islamabad	HR/Admin &IT Manager	6 Years+	Full-time
<i>Respondent No. 20</i>	Rawalpindi	ASO	< 1 Year	Full-time
<i>Respondent No. 21</i>	Islamabad	Jr. Software Engineer	< 1 Year	Full-time
<i>Respondent No. 22</i>	Islamabad	Sr. Software Engineer	1-3 Years	Full-time
<i>Respondent No. 23</i>	Islamabad	IT Support Engineer	< 1 Year	Full-time
<i>Respondent No. 24</i>	Rawalpindi	Software Developer	1-3 Years	Full-time
<i>Respondent No. 25</i>	Islamabad	Site Reliability Engineer	1-3 Years	Project Based
<i>Respondent No. 26</i>	Islamabad	IT Support Engineer	1-3 Years	Full-time
<i>Respondent No. 27</i>	Rawalpindi	Lead Frontend Engineer	6 Years+	Full-time
<i>Respondent No. 28</i>	Islamabad	Principal Software Engineer	< 1 Year	Full-time

<i>Respondent No. 29</i>	Rawalpindi	QA Engineer	< 1 Year	Full-time
<i>Respondent No. 30</i>	Rawalpindi	Software Tester	3-6 Years	Full-time
<i>Respondent No. 31</i>	Rawalpindi	Flutter developer	1-3 Years	Full-time
<i>Respondent No. 32</i>	Islamabad	Senior QA	1-3 Years	Full-time
<i>Respondent No. 33</i>	Islamabad	Frontend Developer	< 1 Year	Full-time
<i>Respondent No. 34</i>	Islamabad	Software Engineer	3-6 Years	Part time
<i>Respondent No. 35</i>	Islamabad	Mobile Application Engineer	6 Years+	Project Based
<i>Respondent No. 36</i>	Rawalpindi	Project Manager	3-6 Years	Part time
<i>Respondent No. 37</i>	Rawalpindi	Data Scientist	< 1 Year	Full-time
<i>Respondent No. 38</i>	Lahore	Software Engineer	1-3 Years	Part time
<i>Respondent No. 39</i>	Islamabad	Software Developer	1-3 Years	Project Based
<i>Respondent No. 40</i>	Rawalpindi	IT Support Engineer	< 1 Year	Full-time
<i>Respondent No. 41</i>	Rawalpindi	Data Scientist	6 Years+	Full-time
<i>Respondent No. 42</i>	Islamabad	Full Stack Developer	3-6 Years	Part time
<i>Respondent No. 43</i>	Lahore	System Engineer	< 1 Year	Part time
<i>Respondent No. 44</i>	Rawalpindi	Site Reliability Engineer	1-3 Years	Part time
<i>Respondent No. 45</i>	Karachi	Data Scientist	1-3 Years	Part time
<i>Respondent No. 46</i>	Karachi	Senior QA	1-3 Years	Full-time
<i>Respondent No. 47</i>	Islamabad	Software Engineer	3-6 Years	Full-time
<i>Respondent No. 48</i>	Islamabad	Software Engineer	1-3 Years	Full-time
<i>Respondent No. 49</i>	Karachi	Principal Software Engineer	1-3 Years	Full-time
<i>Respondent No. 50</i>	Lahore	Software Architect	1-3 Years	Full-time
<i>Respondent No. 51</i>	Lahore	Chief Architect	1-3 Years	Part time
<i>Respondent No. 52</i>	Lahore	Marketing Strategist	1-3 Years	Part time
<i>Respondent No. 53</i>	Lahore	Chief Architect	1-3 Years	Part time
<i>Respondent No. 54</i>	Islamabad	Software Engineer	3-6 Years	Full-time
<i>Respondent No. 55</i>	Lahore	Jr. Software Engineer	1-3 Years	Part time
<i>Respondent No. 56</i>	Karachi	Project Manager	6 Years+	Project Based
<i>Respondent No. 57</i>	Lahore	System Engineer	1-3 Years	Full-time
<i>Respondent No. 58</i>	Rawalpindi	Site Reliability Engineer	< 1 Year	Part time
<i>Respondent No. 59</i>	Islamabad	Software Engineer	1-3 Years	Part time
<i>Respondent No. 60</i>	Islamabad	Principal Software Engineer	1-3 Years	Full-time
<i>Respondent No. 61</i>	Karachi	Mobile Application Engineer	3-6 Years	Part time
<i>Respondent No. 62</i>	Lahore	Data Scientist	6 Years+	Full-time
<i>Respondent No. 63</i>	Islamabad	Mobile Application Engineer	< 1 Year	Part time
<i>Respondent No. 64</i>	Lahore	Software Developer	1-3 Years	Part time
<i>Respondent No. 65</i>	Lahore	Software Engineer	6 Years+	Project Based
<i>Respondent No. 66</i>	Karachi	Software Developer	< 1 Year	Full-time
<i>Respondent No. 67</i>	Islamabad	Full Stack Developer	3-6 Years	Project Based
<i>Respondent No. 68</i>	Karachi	Project Manager	6 Years+	Project Based
<i>Respondent No. 69</i>	Islamabad	IT Support Engineer	< 1 Year	Full-time

<i>Respondent No. 70</i>	Islamabad	Cloud Engineer	1-3 Years	Full-time
<i>Respondent No. 71</i>	Lahore	Data Scientist	3-6 Years	Project Based
<i>Respondent No. 72</i>	Rawalpindi	cloud engineer	6 Years+	Full-time
<i>Respondent No. 73</i>	Islamabad	Mobile Application Engineer	6 Years+	Full-time
<i>Respondent No. 74</i>	Islamabad	Project Manager	6 Years+	Full-time
<i>Respondent No. 75</i>	Islamabad	Software Tester	6 Years+	Project Based
<i>Respondent No. 76</i>	Rawalpindi	Flutter developer	6 Years+	Full-time
<i>Respondent No. 77</i>	Islamabad	Senior QA	< 1 Year	Part time
<i>Respondent No. 78</i>	Islamabad	Software Engineer	3-6 Years	Full-time
<i>Respondent No. 79</i>	Islamabad	Software Tester	3-6 Years	Full-time
<i>Respondent No. 80</i>	Lahore	System engineer	3-6 Years	Project Based
<i>Respondent No. 81</i>	Lahore	Software Engineer	< 1 Year	Part time
<i>Respondent No. 82</i>	Islamabad	Software Tester	3-6 Years	Part time
<i>Respondent No. 83</i>	Karachi	IT Support Engineer	1-3 Years	Full-time
<i>Respondent No. 84</i>	Islamabad	Software Engineer	6 Years+	Full-time
<i>Respondent No. 85</i>	Lahore	Frontend Developer	6 Years+	Full-time
<i>Respondent No. 86</i>	Islamabad	Software Engineer	6 Years+	Full-time
<i>Respondent No. 87</i>	Karachi	Software Developer	3-6 Years	Full-time
<i>Respondent No. 88</i>	Lahore	Software Engineer	1-3 Years	Part time
<i>Respondent No. 89</i>	Lahore	Software Tester	3-6 Years	Full-time
<i>Respondent No. 90</i>	Karachi	Full Stack Developer	< 1 Year	Full-time
<i>Respondent No. 91</i>	Rawalpindi	Software Developer	< 1 Year	Full-time
<i>Respondent No. 92</i>	Lahore	Software Developer	1-3 Years	Part time
<i>Respondent No. 93</i>	Karachi	Software Developer	3-6 Years	Project Based
<i>Respondent No. 94</i>	Karachi	Software Developer	6 Years+	Project Based
<i>Respondent No. 95</i>	Islamabad	Software Developer	< 1 Year	Part time
<i>Respondent No. 96</i>	Karachi	Software Engineer	< 1 Year	Full-time
<i>Respondent No. 97</i>	Lahore	Software Engineer	1-3 Years	Part time
<i>Respondent No. 98</i>	Rawalpindi	Software Engineer	3-6 Years	Project Based
<i>Respondent No. 99</i>	Islamabad	Software Engineer	6 Years+	Full-time
<i>Respondent No. 100</i>	Lahore	Software Engineer	1-3 Years	Part time
<i>Respondent No. 101</i>	Karachi	Software Engineer	< 1 Year	Full-time
<i>Respondent No. 102</i>	Lahore	Software Engineer	1-3 Years	Full-time
<i>Respondent No. 103</i>	Lahore	Senior QA	< 1 Year	Full-time
<i>Respondent No. 104</i>	Karachi	Software Engineer	1-3 Years	Part time
<i>Respondent No. 105</i>	Rawalpindi	Software Engineer	3-6 Years	Project Based
<i>Respondent No. 106</i>	Rawalpindi	Software Engineer	< 1 Year	Project Based
<i>Respondent No. 107</i>	Lahore	Senior QA	3-6 Years	Full-time
<i>Respondent No. 108</i>	Lahore	Senior QA	< 1 Year	Full-time
<i>Respondent No. 109</i>	Rawalpindi	Senior QA	1-3 Years	Part time
<i>Respondent No. 110</i>	Lahore	Full Stack Developer	< 1 Year	Full-time
<i>Respondent No. 111</i>	Karachi	Full Stack Developer	1-3 Years	Part time
<i>Respondent No. 112</i>	Lahore	Full Stack Developer	3-6 Years	Project Based
<i>Respondent No. 113</i>	Rawalpindi	Full Stack Developer	< 1 Year	Full-time



<i>Respondent No. 114</i>	Lahore	Full Stack Developer	3-6 Years	Project Based
<i>Respondent No. 115</i>	Islamabad	Full Stack Developer	1-3 Years	Full-time
<i>Respondent No. 116</i>	Karachi	Cloud Engineer	< 1 Year	Full-time
<i>Respondent No. 117</i>	Karachi	Cloud Engineer	1-3 Years	Part time
<i>Respondent No. 118</i>	Karachi	Cloud Engineer	1-3 Years	Full-time
<i>Respondent No. 119</i>	Karachi	Associate Software Engineer	< 1 Year	Full-time
<i>Respondent No. 120</i>	Karachi	Associate Software Engineer	1-3 Years	Part time
<i>Respondent No. 121</i>	Karachi	Associate Software Engineer	3-6 Years	Full-time
<i>Respondent No. 122</i>	Karachi	Associate Software Engineer	< 1 Year	Full-time
<i>Respondent No. 123</i>	Karachi	Senior QA	< 1 Year	Full-time
<i>Respondent No. 124</i>	Karachi	Senior QA	1-3 Years	Part time
<i>Respondent No. 125</i>	Karachi	Senior QA	1-3 Years	Part time
<i>Respondent No. 126</i>	Karachi	Senior QA	1-3 Years	Full-time
<i>Respondent No. 127</i>	Karachi	Frontend Developer	1-3 Years	Full-time
<i>Respondent No. 128</i>	Karachi	Frontend Developer	1-3 Years	Project Based
<i>Respondent No. 129</i>	Karachi	Frontend Developer	1-3 Years	Part time
<i>Respondent No. 130</i>	Karachi	Full Stack Developer	< 1 Year	Full-time
<i>Respondent No. 131</i>	Karachi	Full Stack Developer	1-3 Years	Part time
<i>Respondent No. 132</i>	Karachi	Full Stack Developer	1-3 Years	Full-time
<i>Respondent No. 133</i>	Rawalpindi	Software Developer	1-3 Years	Full-time
<i>Respondent No. 134</i>	Rawalpindi	Software Developer	1-3 Years	Project Based
<i>Respondent No. 135</i>	Lahore	Jr Angular Developer	1-3 Years	Project Based
<i>Respondent No. 136</i>	Lahore	Jr Angular Developer	1-3 Years	Full-time
<i>Respondent No. 137</i>	Lahore	SQA Analyst	1-3 Years	Project Based
<i>Respondent No. 138</i>	Lahore	SQA Analyst	< 1 Year	Full-time
<i>Respondent No. 139</i>	Lahore	Frontend Developer	1-3 Years	Part time
<i>Respondent No. 140</i>	Lahore	Frontend Developer	1-3 Years	Project Based
<i>Respondent No. 141</i>	Karachi	Cloud Engineer	3-6 Years	Project Based