International Journal of Innovative Research and Scientific Studies, 6(3) 2023, pages: 682-693

IJIRSS
International Journal of Innovative Research & Scientific Studies

ISSN: 2617-6548

URL: www.ijirss.com

The impact of system dynamic employee recruitment process on organizational effectiveness

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Abstract

This study aims to examine how employee recruitment influences organizational effectiveness, specifically in financial terms and other factors, using a system dynamics approach. The study utilizes a modeling technique of the system dynamics approach, which includes causal loop diagrams, stock and flow maps, simulation, and on-field data gathering, to understand the nonlinear behavior of the complex system across time. The research method employed in this study involves the collection and analysis of on-field data using the system dynamics approach to model the recruitment process and its impact on the organization. The study investigates the effects of recruitment on organizational outcomes, including financial performance and other related factors. The approach taken in this study is the system dynamics approach, which allows for a comprehensive analysis of the complex and nonlinear relationship between recruitment and organizational effectiveness.

Keywords: Human resource management, Organizational, Performance management, Recruitment, System dynamics.

DOI: 10.53894/ijirss.v6i3.1793
Funding: This research is partially supported by the Polytechnic Institute of Lisbon through the Projects for Research, Development, Innovation and Artistic Creation (IDI&CA), within the framework of the project ACPMEBI - Increasing SME competitiveness based on innovation (Grant number: IPL/2021/ACPMEBI_ISCAL).
History: Received: 21 November 2022/**Revised:** 29 March 2023/**Accepted:** 31 May 2023/**Published:** 13 June 2023

Authors' Contributions: All authors contributed equally to the conception and design of the study.
Competing Interests: The authors declare that they have no competing interests.
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained.
Ethical Statement: This study followed all ethical practices during writing.
Publisher: Innovative Research Publishing

1. Introduction

1.1. Background

Human resource planning is a technique used to initiate and retain direction in an organization. Planning should ensure that activities are aligned with desired goals [1]. Consequently, human resource planning is an effort to improve morale and yield rates, maintain job retention, and provide ease to the company in effectively using employee expertise and coaching them to enhance their skills, leading to improved employee gratification with their job and working environment. The role of the manager in human resources is referred to as manpower planning, and it is rational to say that manpower planning is

the core of Human Resource Management (HRM). Companies are looking for various strategies that assist them in developing an interrelation between human resource planning and an organization's long-term goal. A successful human resource department should understand and recognize the needs within the organization and start working on recruitment or acquisition once those needs are identified.

The Roman Army pioneered the notion of recruitment in the year 55 B.C. Julia Caesar signed an act earlier that every soldier who recruited another soldier into the army would be paid 300 sestertii, which was a significant sum at the time and equaled 30% of the soldier's annual pay. This was the beginning of the employee referral program. the modern recruitment era began in 1940 as a result of World War II. Employment agencies started advertising openings in the workplace that were left vacant by personnel who had been called to duty. During this era, headhunting companies began to gain popularity. These companies worked for those who were looking for employment until a strong economic shift occurred, and the concept of working for employees shifted towards working for the employer. With the growth of the economy, recruiters began to work closely with their clients, leading to a revolution in the recruitment industry.

For any type of business organization, employee enlistment and assortment are two essential responsibilities in managing human resources. These terminologies refer to the process of attracting and identifying potential applicants for recruitment. These functions heavily influence the quality of human resources [2]. Enlisting and assorting an unsuitable candidate who does not fit the job requirement can result in significant costs associated with bad hiring, which companies cannot afford. Therefore, the overall purpose is to recruit and select the appropriate number and quality of employees within the organization, based on the requirement, to meet the prudent objectives of the corporation at minimum cost [3].

According to Ofori and Aryeetey [3], hiring employees is the procedure to attract and find suitable candidates who are qualified for the job vacancy within the organization. Hence, it is a set of activities that involve attracting candidates who have the required abilities and attitudes. Recruitment deals with creating a cluster of up-skill candidates for vacant positions in a firm. Various research studies have shown that larger organizations are more likely to implement sophisticated recruitment processes as compared to small or medium enterprises [4]. In contrast, most small enterprises rely on candidates that are referred by others and broadcast their recruitment practice as a nomination [5].

According to Gamage [2], the general objective of right sourcing is to provide a potentially qualified cluster of applicants to the organization. The quality of attracted applicants acts as a basis for the quality of human resources because organizations ultimately choose employees from this pool. Recruitment acts as an entry point of manpower within the organization and a process that organizations must follow to make sure that they have attracted rights applicants who are consistent with their heritage, traditions, and values. This ensures that the organization achieves its all-inclusive objectives [2]. Recruitment can be defined as a systematic process aimed at identifying sources of potential candidates to fulfill the staffing schedule and implementing effective measures to attract a sufficient number of suitable candidates to facilitate the efficient selection of personnel [6]. As outlined by Kumari and Malhotra [7], recruitment needs can be categorized into three types: planned needs, which are based on projected demand for staff; anticipated needs, which are associated with potential changes in the organization's workforce; and unexpected needs, which arise due to unforeseen events such as resignations or terminations.

According to Sinha and Thaly [8], there are a variety of recruitment approaches that are adopted by organizations which include campus recruitment, advertising, recruitment agencies/consultant, employee referral, company website, job portals, and social media, etc. Most companies combine two or more recruitment processes to align with their overall organizational strategies delivered. However, the choice of recruitment channel depends on factors such as the employer brand, the job position, the recruitment budget, and the resources allocated for hiring the team. Companies often experiment with different channels and figure out which one suits them most. Each recruitment channel has its advantages and constraints, and the most suitable channel for an organization can be identified based on previous recruiting data [8].

Many firms are seeking new ways to improve the performance and efficiency of their human resources in today's competitive business climate [9].

Organizational effectiveness refers to the efficiency with which a firm achieves its outcomes by using its resources effectively. It encompasses the organization’s ability to meet its objectives and societal expectations in the short term, adapt and develop in the near future, and sustain itself in the long run. The main measures that are used to evaluate the effectiveness of an organization involve several key measures, including its profit generation in comparison to estimated profit and growth indicators. Factors, such as maximizing production, minimizing costs, and achieving technological excellence contribute to organizational effectiveness [10]. In addition, organizational effectiveness is influenced by factors such as clear authority and discipline within the organization. Employee satisfaction, which correlates positively with productivity, also plays a significant role in determining organizational effectiveness [11].

1.2. Research Gap

Numerous studies have been carried out on human resource management using system dynamics, but these studies have primarily focused on various aspects of recruitment. For instance, Aburawi, et al. [12] conducted a study on workforce planning, where they presented a system dynamics model to examine the impact of changes in workforce planning problems related to staff recruitment, staff shortages, recruitment, and surplus. While this study examined the recruitment process within the system, it did not focus on the impact that this recruitment has on the effectiveness of the organization. While other researchers have examined the relationship between recruitment and selection and organizational profitability, there is a dearth of research covering the comprehensive aspects of recruitment within a dynamic system, particularly in the context of Pakistan. Therefore, this study is conducted to review the impact that recruitment has on organizational effectiveness in the Pakistani context.

1.3. Research Problem

This study investigates the consequences of recruitment in the Pakistani context and discusses this strategy under system dynamics by using a causal loop diagram, stock, and flow process to assess its impact on the effectiveness of the organization. The study analyzes the interrelationships between various variables associated with recruitment and their ultimate effects on organizational effectiveness. Additionally, it investigates the factors that contribute to these influences. The findings of this study will assist organizations in gaining a better understanding of how recruitment significantly affects their enterprise effectively.

1.4. System Dynamics

After World War II, various kinds of social issues started to become increasingly serious due to progress in industrialization, urban population, employment, resources, and other factors. Consequently, there was a need for comprehensive research to solve these problems by using new techniques and methods. Several years later, in 1955, when electronic computer technology matured and gained popularity, Professor Forrester from the Massachusetts Institute of Technology introduced a research system called System Dynamics (SD). System dynamic behaviors is a computer simulation technology that allows for the study of dynamic behaviors within complex systems.

System Dynamics was developed in 1956 and is basically concerned with how things change with the passage of time [13]. The System Dynamics Model is based on the philosophy to understand how the dynamic behavior of a system is affected by its structure, organizational policies, and decisions [14]. The System Dynamics approach helps to review and manage complex feedback systems by testing different scenarios. Traditionally, a System Dynamics Model is built using "Causal Loop" and "Flow Diagram" methodologies. The effective alignment of different HRM practices with organizational performance is depicted through causal loops and presented in the flow diagram.

System dynamics is an approach to understanding the complex behavior of social, economic, technological, dynamic, and political systems. It aims to describe how the behavior of a system is governed by the system's policies and structure, which influences decision-making processes. Researchers employ various tools, such as causal loop diagrams, stock and flow diagrams, and computer simulations, to study complex systems and their nonlinear behavior.

System dynamics helps in understanding complex structures and provides evidence to make decisions across various domains. System dynamics help in understanding the relationship among dynamic systems and various other factors that influence them. While conducting typical research, we often make assumptions and extract results within a controlled environment. However, it does not reflect the complexities of the real world. In the real world, many other factors also influence, which are considered and incorporated in system dynamics modeling by showing various effects using a feedback loop. The major benefit of using system dynamics is its ability to elucidate the behavior of interconnected factors, including the positive or negative effect they have on one another, and the multiple connections that shape the behavior of the overall network. Human resource management is all about managing human beings within the organization, treating them as a valuable resource. To make effective decisions, it is essential to have a proper system in place that helps in the forecasting of key factors like recruitment and provides evidence to support the decision-making process. Obtaining accurate forecasts is of paramount importance for organizations. System Dynamics plays a crucial role in this regard by offering insights into the long-term consequences of policy implementation. It helps organizations understand the potential outcomes and impacts resulting from the implementation of specific policies over an extended period.

The methodology of system dynamics consists of two phases, as shown in Figure 1: the qualitative and quantitative phases. These two phases can be used to figure out the underlying issues or causes of problems. The qualitative phase of the research involves system input-output analysis, conceptual modeling, and diagram creation. Once the conceptual model is established, it can be converted into a block diagram and used as the basis for the quantitative phase. The quantitative phase involves the development and analysis of a simulation model.

System dynamics include the following series of steps:

- Causal loop diagram.
- Stock and flow maps.
- Stimulation.
- On-field data collection and finding the gap between simulation and filed data collection results.

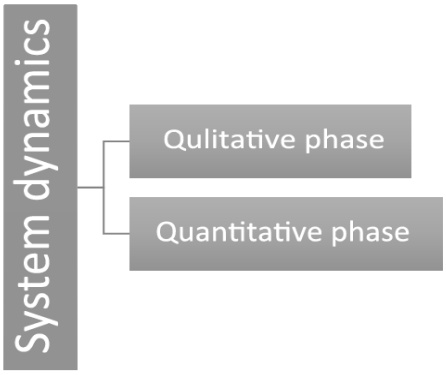

Figure 1.
System dynamics methodology.

1.4.1. Causal Loop Diagram

The system dynamics methodology involves presenting a problem in a causal loop diagram (CLD) as the first step. CLDs provide a straightforward representation of the system, including its components and their interactions, while capturing feedback loops and revealing the system's structure. This helps in the qualitative analysis of the system [14].

One of the major advantages of using CLDs is the simplicity of the methodology involved in creating these maps. It is not necessary to have extensive quantitative training in engineering or mathematics to develop such diagrams, which are designed to capture the complexities of a multifaceted issue [15]. Various authors have provided detailed methods for constructing CLDs, including Coyle [15], Sterman [14], Andersen, et al. [16], and Cavana and Mares [17].

To create a CLD, a mapping legend with two basic features is used. Firstly, CLDs are made up of variables and directional links represented by arrows that depict causal interactions. The directional links indicate a cause-and-effect relationship, where the originating variable influences another variable. Secondly, causal links have two polarities: positive and negative [17, 18]. A positive causal link implies that two linked variables will rise or fall together (in the same direction), while a negative polarity indicates an inverse or opposing relationship (in the opposite direction). In this case, an increase in one variable leads to a decrease in the other variable, and vice versa. By linking variables that are causally related in this manner, a CLD is created.

1.4.2 Stock and Flow Map

Stock and flow diagrams are graphical representations of a system's structure that are frequently used in system dynamics modeling to simulate dynamic processes [19]. According to Sterman [14], these diagrams assist in analyzing the system's behavior over time by identifying variables that accumulate or deplete resources. Stock variables are resources that accumulate over time, whereas flow variables are rates of change that determine the speed at which resources flow into or out of a stock variable. The relationship between stocks and flows is represented by arrows linking them, indicating the direction and magnitude of the flow. A comprehensive guide to creating stock and flow diagrams has been provided by Robinson, et al. [20]. Computer software such as Cavana and Maani [21], Andersen, et al. [22], and Tako and Robinson [23] can be used to create stock and flow diagrams and implement system dynamics simulations.

1.4.3. Simulation

In the last few decades, there has been a significant advancement in technology, accompanied by a growing need for tools to support decision-making and policy analysis in complex and dynamic domains. As a result, Computer-aided simulation has acquired a greater degree of applicability [19]. According to Robinson, et al. [20], computer simulation makes it possible to experiment on a computer model of a real-world system, leading to a better understanding and improvement of the real world [21].

Based on tools and a core set of methodological principles and the ability to support decision-making in business domains of complex models and developing and implementing long-term strategies, among the most extensive techniques [22, 23] of computer simulation, System Dynamics [15, 24-26] has achieved a greater interest in the academic community.

2. Literature Review

The system dynamics methodology is suitable for modeling and simulating business performance because it helps decision-makers understand dynamic and complex social systems and develop sustainable development strategies. Simulation models are built by identifying causal relationships between key performance variables, performance drivers, and strategic resources within the relevant system. By understanding the relationship between structural design and resulting system behavior, the SD methodology helps to manage leverage points and improve performance. Its purpose is not to predict precise outcome values, but rather to design and analyze a feedback structure based on causal relationships between variables to comprehend how a system might respond to different strategies. SD allows analysts to apply a model to social contexts, conduct "what-if" analyses, and challenge managerial intuitions. Through qualitative conceptualization and simulation of SD models, managers' understanding of social and business dynamics can undergo radical shifts. Consequently, there is no universal model that can be applied across different organizations. Instead, the same methodological approach can be used to design customized models that support performance management and measurement by taking into account the peculiarities of each organization [27-30].

This review is based on the theory of Human Capital and the Resource-Based View concept. According to this theory, Human Capital, as suggested by Aspromourgos [31] and Teixeira [32], is a valuable asset, similar to tangible resources, because it encompasses the abilities and valuable skills of individuals, which have tangible value and provides benefits. Within the human capital framework, as explained by Armstrong [33], individuals and their overall abilities, capabilities, and experience, along with their ability to apply them within the context of an organization, are recognized as contributing significantly to organizational success and serving as a crucial source of competitive advantage.

According to the Resource-Based View (RBV), as explained by Barney, et al. [34], a sensible, high ground is conceivable when firms have a human asset pool that can't be imitated or supplanted by adversaries. In line with the Resource-Based view, firms should ceaselessly evaluate their workforce to ensure that they have the ideal people with the right capacities in the right spots to ensure bolstered high ground [35]. When this is not the case, firms should address the shortfall by using appropriate recruitment and selection criteria. The theory suggests that a significant portion of an organization's strength or weakness stems from the caliber of the individuals employed and the quality of their working relationships. Boxall [36] further highlighted that organizations that recruit and retain exceptional individuals have the potential to develop a competitive advantage through human capital. According to Budhwar and Sparrow [37], innovation

and capital can be acquired by most organizations at any time, albeit at a cost. However, obtaining a ready pool of highly qualified and motivated employees is challenging. Therefore, to stand out, organizations must exercise great caution in their recruitment and selection processes.

Finding capable workers is an essential organizational challenge [38], with the difficulty of concentrating on recruitment and selection efforts towards employees with the right skills to help achieve goals [39]. As argued by Priyanath [39], this issue is increased by the lack of deliberate strategies for recruitment and selecting employees. An effective recruitment process, as indicated by Gamage [2], involves identifying vacancies, conducting job analysis, creating job descriptions, individual selection, and advertising. In contrast to an informal approach to recruiting and selecting employees, a deliberate selection process involves the recruitment method, gathering information about qualified candidates, assessing the competence of each candidate, and making employment decisions.

Enlistment and determination are vital components of human asset administration for a business association. These terms refer to the process of attracting and selecting candidates for employment. The effectiveness of these two functions significantly impacts the quality of the organization's human resources. Recruiting and selecting unqualified candidates entail a substantial cost that companies cannot afford. Therefore, the general purpose of enlistment and determination within the organization is to acquire the required number and quality of employees, while minimizing costs [3].

One of the key strategies for an organization involves recruitment and selection, which aim to identify and secure individuals needed within the organization for short and medium-term benefits and investment [40]. The primary purpose of recruitment is to attract a growing number of suitably qualified candidates to ensure the selection of the best candidates for the organization. Similarly, the main objective of selection is to choose the best candidate to fill various positions within the organization [2]. For interesting, sustaining and emerging an effective workforce is becoming a key challenge for the organizations for sustainability [41]. Particularly, after the outbreak of the coronavirus disease 2019 (COVID-19) pandemic, many organizations across the global business sectors have been eager to explore new ways to enhance the efficiency and effectiveness of productivity of their operations [42].

Diverse reviews show that there is a positive connection between recruitment and selection and project performance [2]. Ekwoaba, et al. [43] provide evidence that there is a sure relationship between recruitment and selection and business performance. Similar positive outcomes were also found in other studies, including [44]. As indicated by Ekwoaba, et al. [43] recruitment and selection processes are equally important and have a positive effect on hierarchical execution.

With proof from Omolo, et al. [45] on recruitment, selection criteria, and organizational performance, it is shown that recruitment and selection involve sourcing candidates through advertising, agencies, or other methods, screening potential candidates using standardized tests and interview processes, selecting candidates based on the results of tests and interviews, and onboarding to ensure effective fulfillment of new roles. The recruitment process is the one that gives the organization a qualified pool of applicants consistent with a valid and reliable selection scheme that has a significant impact on the type and quality of skills possessed by new employees [46].

The concept of employee engagement is considered one of the most important concepts that has recently emerged in the literature on organizational behavior. Employee engagement is a term used to characterize employees who want to play a key role in improving their organizations' value-generating processes [47]. Employees who are engaged are more likely to invest a significant amount of time and effort to enhance the success of the companies for which they work. As a result, it's tough for businesses to come up with new strategies to get employees involved in the workplace [48].

The use of proper recruitment and selection processes ensures that qualified and suitable candidates are chosen for employment, whose skills align with the job requirements. Appropriate selection and recruitment criteria increase the likelihood of selecting the right individual. When qualified candidates are chosen, organizational productivity increases. According to Terpstra and Rozell [49], there is a positive relationship between recruitment, utilization of formal selection procedures, and company profits. Similarly, Ekwoaba, et al. [43] have discovered that recruitment and selection have a positive association with organizational performance.

Furthermore, HRM practices also include training and development, employee motivation, compensation and benefits, employee relations, and health and safety at the workplace [50]. Effective HRM practices are critical for the success of an organization because they can improve employee performance, productivity, and job satisfaction, which in turn can lead to higher levels of customer satisfaction and profitability [51]. HRM practices also play a crucial role in attracting and retaining talent, as well as promoting diversity and inclusion in the workplace [52]. Additionally, HRM practices need to be aligned with the organization's overall strategy and goals to ensure that they support the achievement of those objectives [53]. Overall, HRM practices are essential for creating a positive work environment, fostering employee engagement, and ultimately contributing to the success and sustainability of the organization.

Since organizations are made up of people, in order to achieve their goals, organizations must effectively recruit, select, and train their employees. Organizations must maximize output by developing employees' skills, knowledge, and abilities. Organizations can motivate employees by providing health and safety benefits, incentives, and rewards, which increase their commitment to the organization [51]. The performance of organizations is heavily reliant on the performance of their employees. Employees who are satisfied and motivated are more likely to perform well, ultimately improving the organization's performance. It is therefore critical that the success or failure of organizations is dependent on their employees, regardless of whether the organization is private or public, in the education or health sector, or classified as SMEs or non-profit Arthur [54]. Huselid [46] stated that HRM practices play an important role in improving organizational performance. He emphasized that HRM practices can improve employees' skills and attitudes, by making them more competent, thereby increasing the profitability of organizations. In today's competitive environment, HRM practices are critical for gaining a competitive advantage among organizations. Organizations are working to retain employees by

satisfying them with necessary benefits in order to achieve organizational objectives. Organizations design an HRM system to align it with HR practices in order to achieve the best possible results in order to retain employees and motivate them to perform well [52]. Furthermore, employee commitment is critical, because if employees are committed to their work, they will be more psychologically attached to the organizations. The psychological attachment is essentially employee loyalty, which leads to lower employee turnover and is regarded as the most important factor in keeping employees in the organization for an extended period of time.

The human resource department plays a crucial role in identifying the right person for the right position at the right time to achieve excellent employee performance and boost the organization's efficiency and effectiveness. With a high staff turnover rate, information has become portable, leading to the loss of the organization's vital business understanding. Having qualified human resources have practical implications for managing staffing and training dynamics. As a result, market pressures pose significant competition in retaining key personnel to remain competitive, as many firms are currently experiencing [53].

To enhance the literature review, further data should be added to provide a comprehensive analysis.

3. Methodology

System dynamics is a methodology and modeling technique for visualizing various variables. It demonstrates how various variables are linked to one another [13]. System Dynamics is a relatively new concept that is used to frame, draw, understand, and discuss complex problems and issues. This methodology was proposed in order to assist managers in gaining a better understanding of the processes and in data analysis The goal of using this model in this study is to recognize the relationship between various HRM practices and their impact on employee and organizational performance in developing countries' organizations. I think Software, which was introduced, was used for this modeling. This software is used for modeling, presentations, and professional simulations, as well as to build, design, and simulate estimation models. Coefficient estimation was measured by using SPSS under the heading of simulation. Above each graph, the explanation is given. For Further explanation, you can see Annexures.

3.1. Causal Loop Diagram

A causality diagram is used to reflect the system of recruitment and organizational effectiveness, illustrating the main factors that influence each other and the causal relationships, as shown in the figures drawn below. Figures 2, 3, and 4 indicate the individual loop diagrams, while Figure 5 represents the integrated loop diagram.

Figure 2.
Individual loop diagram 1.

The loop drawn above represents that recruitment positively affects organizational effectiveness, by keeping into account other factors as well. This is a reinforcing loop that shows how if one thing increases, it will keep on increasing over time.

The individual loop drawn above represents a balanced loop diagram, which indicates that it will decline and maintain balance. This loop is a reinforcing loop because if one thing increases, it will eventually decrease to maintain balance, rather than continuously increasing.

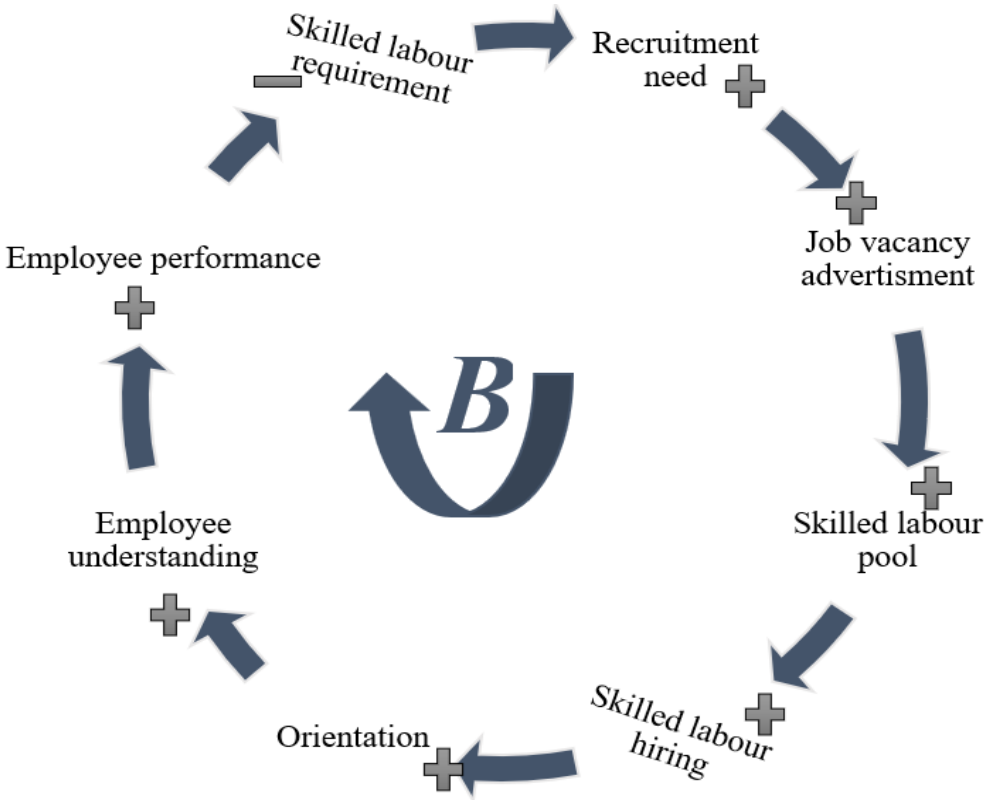

Figure 3.
Individual loop diagram 2.

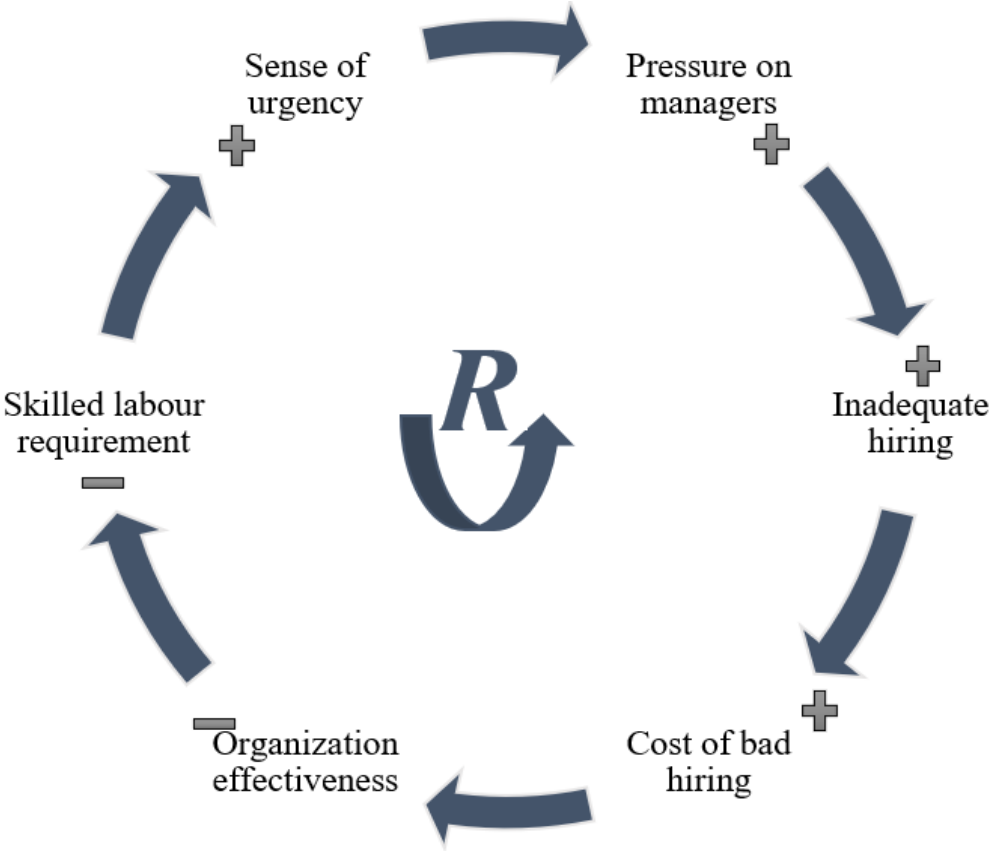

Figure 4.
Individual loop diagram 3.

Figure 5 shows the causal loop diagram. It uses positive and negative signals to represent the nature of the contact. The plus (+) marks imply that as the variable at the arrow tail increases, so does the variable at the source head. Conversely, the negative sign suggests that the variable at the arrowhead will drop as the variable at the arrow tail increases, indicating that the two variables have an inverse relationship.

In this figure, it is indicated that an increase in employee training and rewards leads to an increase in organizational effectiveness. However, the cost incurred during the training of new employees will contribute to cost-cutting initiatives, which ultimately leads to a decrease in rewards. Those cost-cutting initiatives also have a negative impact on employee performance, causing it to decline to some extent.

A proper recruitment process that attracts a qualified pool of skilled laborers helps in increasing the hiring of skilled labor within the organization. Additionally, with the help of orientation, the level of understanding among new employees improves, resulting in enhanced employee performance within the organization.

However, the requirement for skilled labor within an organization sometimes creates a sense of urgency for managers to hire employees, leading to inadequate hiring. This inadequate hiring increases the cost of bad hiring for the company, which includes reduced productivity, lost time for training and recruiting new workers, cost to recruit and train replacement workers, negative impact on employee morale, and a negative impact on client satisfaction. All these factors collectively have a negative impact on the organization and result in decreased effectiveness.

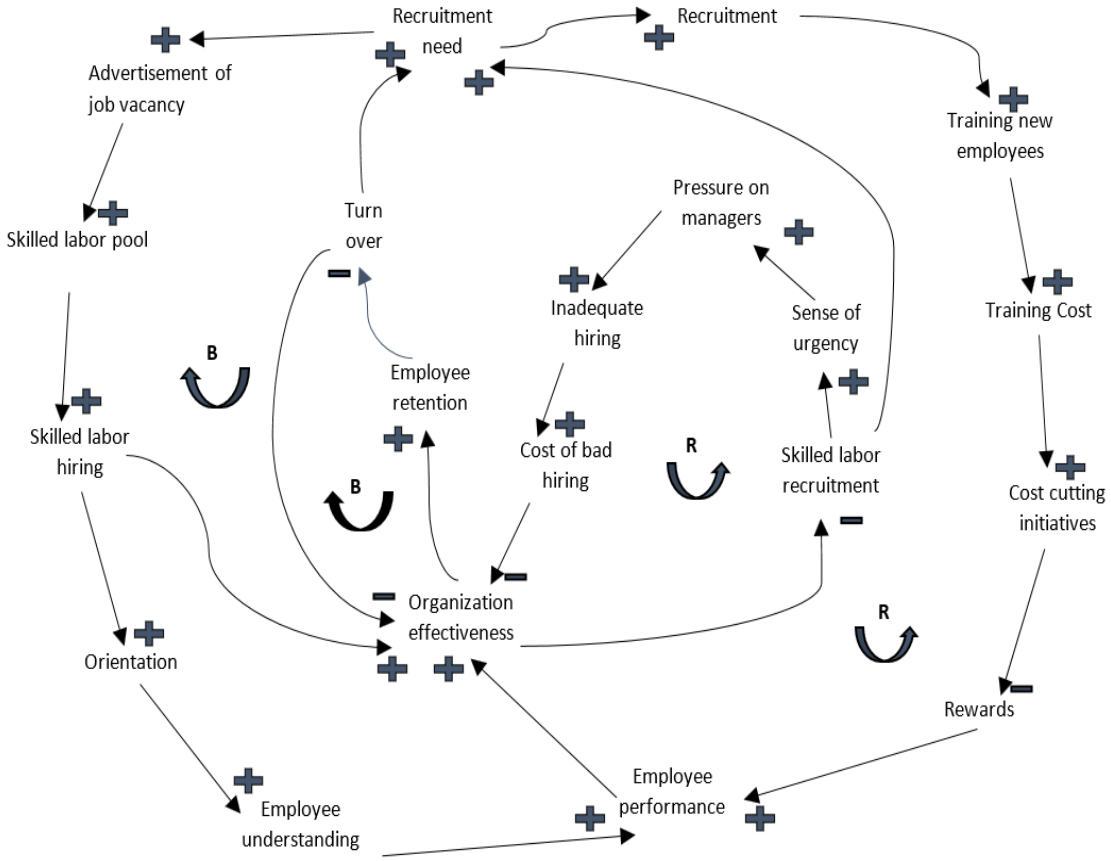

Figure 5.
Integrated causal loop diagram 4.

3.2. Stock and Flow

Based on the causal-loop diagram and the stock and flow diagram, Figure 6 has been implemented using Stella. According to the principle of Accumulation, the dynamic behavior of a system arises in system dynamics. Precisely, dynamic behavior occurs when different flows accumulate and cause an increase or decrease in the stock.

Figure 6 presents two stocks: recruitment and organization effectiveness. Employee performance is considered an inflow for organizational effectiveness, as it has been analyzed in the literature that organizational effectiveness is affected by the performance of the employees within the organization.

The diagram shown in Figure 6, depicting the stock and flow, indicates that as the recruitment needs increase due to higher turnover and the requirement for skilled labor within the organization, it leads to an increase in recruitment. Following the recruitment, various activities such as orientation, training, and rewards affect the performance of employees within the organization, ultimately resulting in an increase in organizational effectiveness.

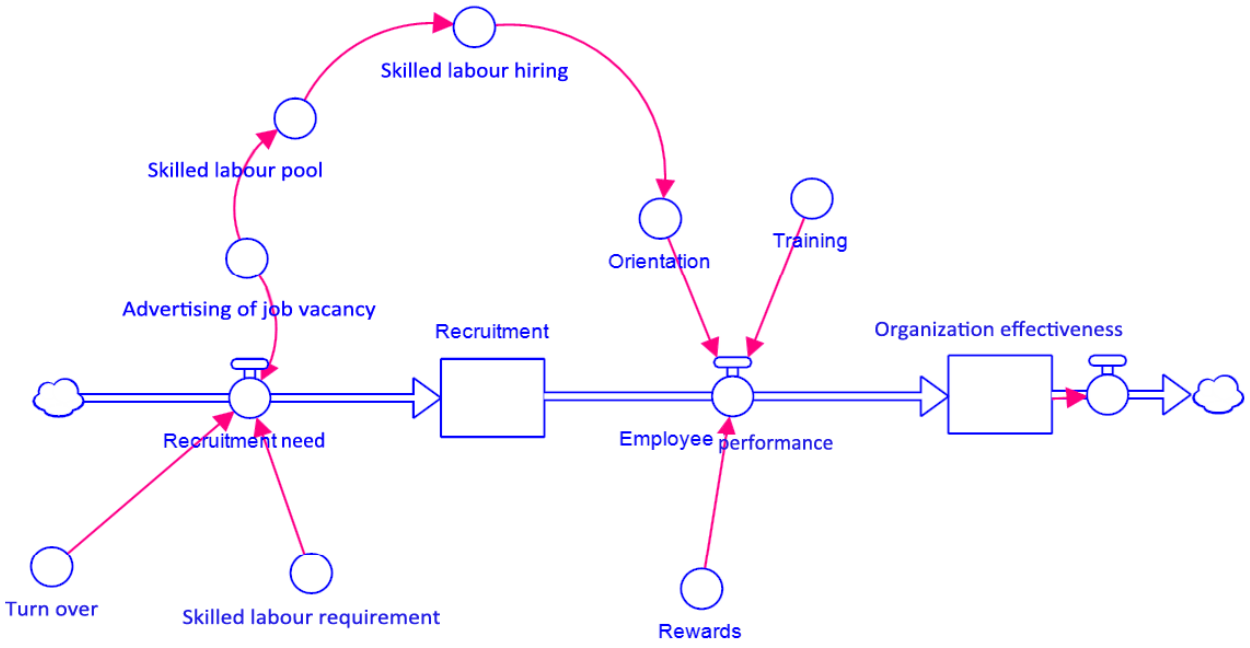

Figure 6.
Stock and flow map for impact of employee recruitment on organization effectiveness.

3.3. Simulation

The simulation is run based on the stock and flow diagrams, and the results for recruitment that are drawn from the simulation are shown below in Figure 7.

3.3.1. Recruitment

The graph shows that as the turnover and recruitment needs increase, the recruitment requirement also increases. However, once it reaches the desired level, it starts to decrease and reaches a stagnant stage. The graph shows the behavior of recruitment over a period of thirteen months, almost a year. It represents a linear trend in recruitment [55]. This linear behavior indicates that after a certain period, recruitment will stabilize. Once the recruitment process fills organizational requirements, it will decline and eventually reach a stagnant state [56].

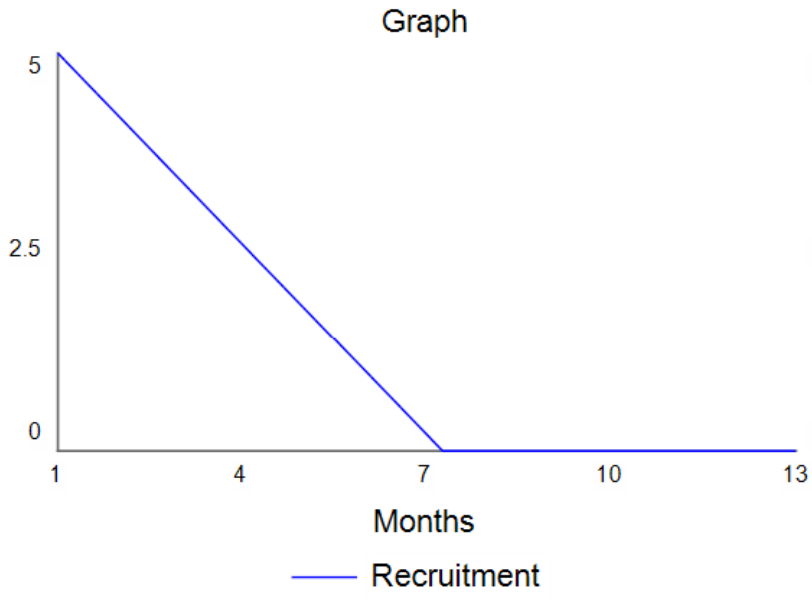

Figure 7.
Behavior of recruitment.

3.3.2. Organization Effectiveness

Figure 8, shown below, identifies the behavior of organization effectiveness over the course of a year. The results from the simulation indicate that the behavior of organizational effectiveness is non-linear. It initially increases, but over time, it starts to decline and eventually becomes stagnant. When the performance of an employee increases with more training and orientation, it causes an increase in the effectiveness of the organization. However, this impact is temporary, as after a certain period of time, the effectiveness reaches a plateau and does not continue to increase in the same pattern [57].

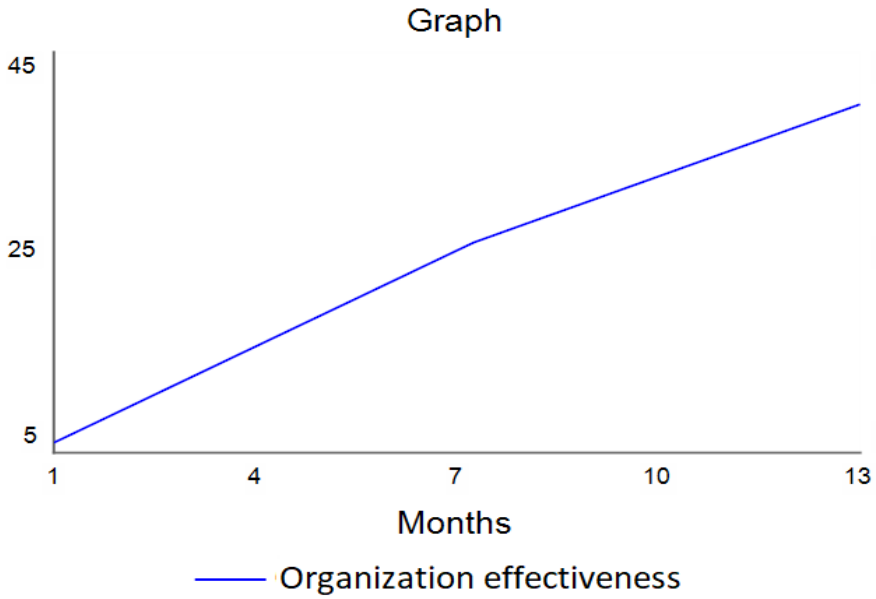

Figure 8.
Behavior of organization effectiveness.

4. Conclusion, Limitation, and Future Prospect

Human resource management serves as the foundation for building an effective and resourceful organizational structure to tackle global challenges. It enables the translation of organizational strategic objectives into alignment with the impact of employee recruitment on organizational effectiveness. In the competitive business world, many organizations are looking for innovative ways to enhance the performance and productivity of their human resources. Therefore, it is concluded that recruitment increases in response to employee turnover, which in turn leads to a decrease in organizational productivity, as new employees may be unfamiliar with the organization's procedures. To overcome the loss of organizational productivity and enhance organizational effectiveness following recruitment, the implementation of training, orientation, and rewards becomes crucial for improving employee performance [55, 56, 58].

In addition to the significance of HRM practices, a crucial challenge in developing countries is the obvious gap between the usefulness and application of such practices. It is necessary to create a framework that is compatible with the implementation of both soft and hard HRM practices. Developing countries like Pakistan require increased organizational output in order to compete with the developed world. Therefore, organizations need to recognize the advantages of systematic integration of various HRM practices in order to achieve the desired level of organizational performance. If more stakeholders become aware of the importance of effective HRM practices, it will encourage management to prioritize and align HRM practices with organizational performance This study faces a major limitation, which is the unavailability of a registered full version of Stella Professional. Due to its cost, we had to use a trial version of Stella, limiting our access to various features. Another limitation was the time constraints in conducting interviews with relevant individuals. By incorporating responses from HR managers and employees, this study can gain authenticity and contribute to the enhancement of the complex structure of recruitment organizations, thereby improving organizational effectiveness.

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Annexures.

Values that are assigned to variables while running the simulation are given below. These are hypothetical values.

Variables	Values
Turnover	0.2
Skilled labor requirement	0.2
Recruitment need	4
Advertisement of job vacancy	0.2
Skilled labor pool	0.2
Skilled labor hiring	0.2
Orientation	0.4
Training	0.4
Rewards	0.4
Employee performance	5
Organization effectiveness	6