An Actionable Framework for Understanding and Improving Talent Retention as a Competitive Advantage in IT Organizations

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ABSTRACT

In the rapidly evolving global business landscape, the demand for software has intensified competition among organizations, leading to challenges in retaining highly qualified IT members in software organizations. One of the problems faced by IT organizations is the retention of these strategic professionals, also known as talent. This work presents an actionable framework for Talent Retention (TR) used in IT organizations. It is based on our findings from interviews performed with 21 IT managers. The TR Framework is our main research outcome. Our framework encompasses a set of factors, contextual characteristics, barriers, strategies, and coping mechanisms. Our findings indicated that software engineers can be differentiated from other professional groups, and beyond competitive salaries, other elements for retaining talent in IT organizations should be considered, such as psychological safety, work-life balance, a positive work environment, innovative and challenging projects, and flexible work. A better understanding of factors could guide IT managers in improving talent management processes by addressing Software Engineering challenges, identifying important elements, and exploring strategies at the individual, team, and organizational levels.

1 INTRODUCTION

In the contemporary global business scenario, the demand for software among companies to fulfill their objectives is increasing rapidly. This growing need for software has led to a significant increase in the number of software development companies, thus intensifying the competition for highly qualified IT members, as reported by Gartner Inc.[1] However, this scenario is challenging due to the scarcity of individuals with specific technical skills, which represents a significant obstacle for organizations seeking to build highly proficient software development teams .

One of the problems faced by IT organizations is the retention of their highly qualified IT members, also known as "talent" [10]. Fierce competition in the job market and a shortage of talent with specific technical skills lead to a high turnover rate in these companies. Moreover, it is important to point out that talent retention can become a significant competitive advantage for IT organizations, according to Resource-Based View (RBV) theory [1].

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[1] http://tinyurl.com/mr3s5tcz

In this challenging context, talent management has become a critical factor for IT organizations [7]. Talent retention is not just limited to the initial attraction but also involves the adoption of efficient strategies and practices to keep highly qualified IT members engaged and satisfied in their work environment in software organizations. The job challenges and the continuous search for learning are specific factors for retaining talent in the area of Software Engineering (SE). These professionals are often driven by intellectual curiosity and a desire to tackle complex problems [4]. The study of Beecham et al. [2] argues that software engineers are distinguishable from other occupational groups due to motivating factors such as characteristics (need for variety), internal controls (personality), and external moderators (career stage).

To address this challenge, we developed an actionable framework on talent retention in IT organizations called TR Framework. It seeks to understand and guide IT managers in the improvement of the talent management process. The TR Framework is grounded in data collected through interviews with 21 IT managers across different software industries, from small to large multinational corporations.

The outcome of our work is a practical framework that accomplishes the following: i) presents a set of **factors** that may influence talent retention; ii) explores the **contextual characteristics** that may moderate the impact of the factors on talent retention; iii) identifies the **barriers** that cut across these factors and impede IT managers from improving their talent retention experience; and iv) documents the **strategies** and **coping mechanisms** employed by IT managers to overcome these barriers and enhance one or more dimensions of their talent retention experience.

2 APPROACH

We conducted a field study as a research strategy to identify specific characteristics of the talent retention process in IT organizations, such as culture, hierarchical structure, workload, human resource policies, and benefits with 21 IT managers. Although the subject of talent retention has been widely studied in management literature, we sought to obtain clarification through interviews on what makes software engineers different from any other employee [2]. The participants were composed of a diverse set of IT managers in terms of role, industry, and experience [8].

Through semi-structured interviews with 21 IT managers, we set out to gather opinions on i) the factors that affect the permanence of talent in the organization; ii) the organizational environment characteristics that can modify the importance of a factor in the talent retention experience; iii) the barriers and challenges that managers face in retaining talent; iv) the strategies that managers use to retain talent; and v) the turnaround mechanisms that managers use to ensure talent retention actions. The "saturation" was reached when

we performed a new set of interviews and did not come up with any new emerging data, as recommendation of Guest and colleagues [6].

To analyze the interviews, we performed an open coding approach where we coded the interviews inspired by the initial procedure for the grounded theory of Strauss and Corbin [9]. Two researchers conducted and coded the interviews over an average of three iterative cycles. During the coding process, the points of disagreement between researchers were resolved through consensus in a new review meeting. Three other researchers with more than 15 years in Empirical Software Engineering double-checked the results and ensured the compliance of the final dataset. Next, we formed axial coding as described by Charmaz [3], to group the codes into categories. We also perform three iterative cycles with discussions among the researchers to build relationships across the codes, forming a logical network to a higher degree.

3 RESULTS

The **TR Framework** is our main research outcome, as shown in Figure 1. The core concept is characterized by **satisfaction** and **motivation** as mind dimensions: i) factors, such as salary and benefits, professional growth and development, organizational culture, and balance between work and personal life are directly related to the satisfaction of IT professionals. When employees are satisfied with these aspects, they are more likely to stay with the organization and be committed to their work; and ii) factors, such as recognition and rewards, challenging projects, and collaborative work environment can motivate IT professionals and play a crucial role in retaining talent. The other two parts of the framework are called *understanding* (left side) and *improvement* (right side).

The TR Framework consists of five core categories inspired by the work of Greiler *et al.* [5]: 1) **factors** that influence the retention of talent in organizations; 2) **contextual characteristics** that encompass the particularities of the environment and moderate the importance of factors; 3) **barriers** that identify the obstacles that prevent IT managers from improving talent retention; 4) **strategies** that address the actions of IT managers to improve talent retention; and 5) **coping mechanisms** that IT managers resort when they face difficulties in improving the talent retention experience in the organizations.

While a competitive salary is certainly an important factor in retaining talent in an IT organization, it is not necessarily the main factor. Talent retention is influenced by a combination of several factors, which vary according to the individual preferences and needs of IT professionals. Our results are aligned with RBV theory [1] and revealed that, despite a competitive salary, other relevant factors for retaining talent in IT organizations can be considered a competitive advantage, such as **psychological safety**, **work-life balance**, **positive work environment**, **professional growth opportunities**, **innovative and challenging projects**, and **flexible work**.

Our TR Framework can be useful in the daily lives of industry professionals: **i) IT managers** could use the framework as a guide to identify the key factors that affect talent retention in the IT teams; and **ii) human resources analysts** could use the framework as a diagnostic tool to assess the effectiveness of existing talent retention practice. To instantiate the TR Framework, we propose a guide grounded in the PDCA cycle (Plan-Do-Check-Act), a widely used management model for continuous improvement.
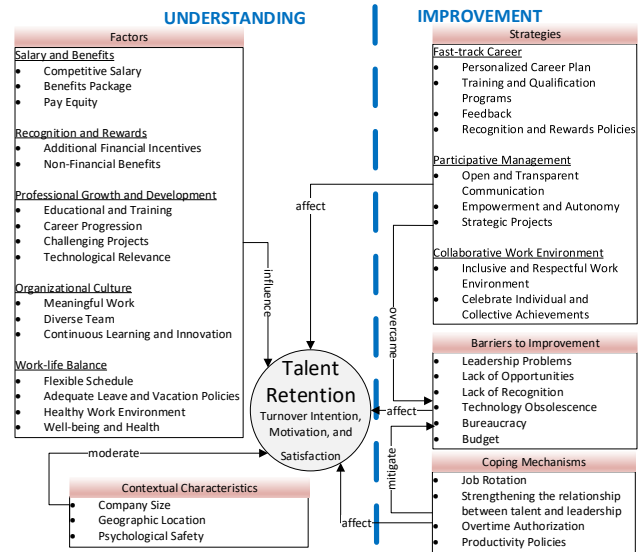

Figure 1: TR Framework.

4 CONCLUSION AND FUTURE WORK

Based on our findings, we conclude that retaining talent is especially relevant for SE professionals, whose motivation is driven by technical challenges, continuous pursuit of learning, an environment that promotes innovation and collaboration, and valuing the well-being of personal life with flexible schedule policies and remote work options. As *future work*, we intend to perform some participative case studies across different IT organizations to illustrate how the TR framework is applied in practice.

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