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Precision in Learning:
Harnessing Targeted Training to Unlock Talent Development

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Abstract

Organizations needs to provide continuous relevant training to their employees for long-term skills development. Employers can upskill and retrain personnel through targeted training (formal and informal learning) to fill in unique skills to reduce attrition. Talent development is very crucial, as there is a need for competent employees that provide their services in firms such as business consulting, software companies, and IT. Due to covid-19, need of software developers at global level has boosted. Remote working even in post-pandemic period is becoming new normal as software companies are interacting globally. This study is conducted to analyse the effectiveness of targeted training in talent development. This study is based on qualitative research, in which interviews were conducted with upper management of software companies from Islamabad and Rawalpindi. Later, themes were generated and data was coded using NVIVO version 12.2 software. The results highlighted that companies need to explore skills gap, develop goals about training concerning objectives, understand needs of individual learning through cultural diversity, geographical location, specific to their knowledge, skills, expertise, learning styles, skills set, and technology access. It is concluded that targeted training is the need of the hour and one of the most efficient tactics in software companies for adopting modern development technologies, transformation in digital channels, accelerating for bridging skill gaps, increasing team performance and managing resources effectively. As this is qualitative research, so further quantitative research needed to be conducted in future with a conceptual framework to highlight importance of this new approach.

Keywords: *Targeted training and Learning, talent development, software companies, post-pandemic.*

1. Introduction:

Due to technological improvements, learning and growth in digital age become more real-time, personalized, contextual, as well as easily quantifiable (Ilyas, Khan, Khan, & Rashid, 2024; Ilyas, Ud Din, Haleem, & Ahmad, 2023). Today's employers are well-known and well-recognized that constant learning and development are essential facets in being successful and gaining competitive edge from other companies (Iqbal et al., 2023). Therefore, employees' training is perquisite by which organization can attain growth and sustain for long-term development. However, businesses frequently fail to give their staff members the right resources for learning and through which it adversely impacts on the long-term skill development of the employees. Targeted training assists

businesses in retraining and upskilling people in the most important areas to boost retention and achieve the end goals (Smid, Karbach, & Steinbeis, 2020; Stojanoski, Lyons, Pearce, & Owen, 2018). Targeted Training is the process through which required skills of the employees are updated through the training process by the employers (Kim & Roberson, 2022). Organizations must make sure that a considerable amount of committed and targeted efforts going into workforce-specific training results in a return on investment, irrespective of their unique stakeholders (i.e., in the form of individual and organizational benefits). Participants and trainees' must integrate the training by using the required and updated skills, and techniques on the job to ensure their career growth and development and employers must ensure to provide the targeted training to their employees in the effectiveness of the talent development (Ford, Baldwin, & Prasad, 2018). The factors linked with successful training transfer have been established through research on the process like retention, absorptive capacity, personality development and other potential outcomes (Kraiger & Ford, 2021).

An organization employs targeted training, a collection of both formal and informal programs, to upskill and uplift its staff members so they can accomplish its objectives. In today's business environment, upskilling is essential. The World Economic Forum claims that skill has a five-year half-life (Ford et al., 2018). In other words, the value of an employee's talents in five years will be only half what it is now. Therefore, it is crucial to continually train staff members regularly through targeted training to avoid negative effects that hinder the organization's performance and cause it to fall behind its rivals (Salamon, Blume, Orosz, & Nagy, 2021). Due to a lack of resources before and even after post-pandemic, the employees are feeling psychological distress and anxiety as employees had low interaction with each other and they do not get the opportunity to enhance their skills. Employees worked online for that duration and still, different companies are following the process of working remotely (Russell et al., 2022). Therefore, due to a lack of resources, less face-to-face interaction, a low level of social activities, and a lack of facilities provided for training and development, there is a need for targeted training for organizations to enhance the required skills and training (Van den Berg, Dauth, Homrighausen, & Stephan, 2023).

Jobs have dominated the structure of work for more than a century, dictating how it is carried out, from whom, the way it is supervised and commanded, and how employees are encouraged by all HR procedures, such as recruiting, compensation, or remuneration, career advancement, and performance appraisal (Kim & Roberson, 2022). However, limiting work to standardized tasks carried out in an operational job and basing all decision-making regarding employees on their position within the organizational hierarchy inhibits some of the most important organizational goals of the current scenario regarding digital transformation, post-pandemic era and e-HRM, organizational agility, expansion, and entrepreneurship; diversity, integration, inclusion, innovation, and fairness; and the capacity to provide people with a positive working environment. Developing on Social Cognitive theory (Bandura, 1986; San Juan et al., 2022), it is highlighted that targeted training focuses on the specific skills, expertise, and knowledge of individuals in organizations, and thus if the training process achieves the required outcome, then it positively impacts on the talent development. Targeted training is crucial in organizations such as telecom, software companies, and those based on new technologies (Ahmad, Ahmad, & Qayum, 2024). In the social cognition process, the sharing of ideas, knowledge and skills would update the expertise of the other employees and through which the talent can be develop further.

A motivated software industry exists in Pakistan, but one that faces many different obstacles. The fact that Pakistan only makes up 1% of the worldwide information technology market raises serious concerns because this is completely insufficient given the country's growing demand for

development and expansion of its IT sector (Hamid & Ikram, 2024). A growing percentage of software companies lack the capacity to fully harness this potential due to the obstacles that surround them, even if it has plenty room to grow and expand.

Pakistan offers enormous potential for software development companies because there are so many talented and highly skilled locals working in the industry. The nation's IT business is expanding quickly because to a sizable population of educated and motivated young people who want to work in the computer field (Ahmad et al., 2024; Iqbal et al., 2023). The accessibility of a substantial and highly skilled labor is one of the industry's main advantages within Pakistan for the development of software. Numerous colleges and technical institutions across the nation provide both engineering and computer science programs, which means that there is a constant supply of students with the know-how needed to operate in the industry of software development. The following software tools in 2024 needs to be trained to employees including cypher learning, Talent LMS, Absorb, iSpring, Docebo, Blackboard learning, 360 learning, Adobe and other software tools based on the company requirement (Arshad & Ali, 2023; Raza, Fatima, Nazir, & Amin, 2023). The issue relating to that as numerous universities are providing updated technical skills and expertise to their students after analyzing the demand of market place, but still employers fails to provide the targeted training in updated skills which are need of the hour to the employees, by which they can't focus on the talent development.

Based on such areas, this study is based on targeted training and tends to work on talent development. Therefore, this research focused on the following questions.

Q1. What is the impact and importance of targeted training and how it enhances the talent of the organization?

Q2. How the organizations learn the importance of targeted training and work on the shortcomings to improve the process of talent development, particularly after the post-pandemic era?

2. Literature Review:
2.1 Targeted Training and talent development

The term "targeted training" refers to a strategic series of activities aimed at increasing staff competencies and attitudes that the leadership and management need to realize their overarching corporate objectives. Employees can execute their existing jobs better or get prepared for taking on a more challenging work role by increased skill and worth. Through targeted training, businesses may demonstrate to workers that value their development and well-being (Doufexi & Pampouri, 2022).

Organizations are increasingly trying out what they believe to be a superior approach. People can be liberated from becoming identified by their professions but rather be regarded as entire individual people with capabilities and skills which can be adeptly implemented to work that matches their preferences, as well as to shift company objectives (Ubfal et al., 2022). Additionally, firms can continue to employ a sustainable, efficient, and fair method of functioning by hiring decisions on skills rather than occupations. This new approach to employment and the employees is referred to as "the skills-based organization." And this skill-based organization is focused on targeted training (Dammert & Nansamba, 2023).

The "skills" identified by targeted training include "hard" or professional talents (like coding, data processing, and budgeting), human assets or skills (like creative reasoning and emotional competence), and aptitude (including abilities, latent qualities, or adjacent skills that may be developed and which tends to motivate talented employees) (Doufexi & Pampouri, 2022). Targeted training for "skills" eventually came to be used as a shorthand for more precisely describing workers as distinct, full people, each with a unique set of abilities, desires, interests,

and drives as well as professional or cultural orientations, geographical inclinations, and priorities (Chiang, Shang, & Qiao, 2022).

The COVID-19 outbreak and other recent worldwide unrest have had a big influence on software suppliers. They have struggled with staffing reductions, project delays, and budget cuts, which has caused negative growth rates in the industry as a whole (Raza et al., 2023). In 2021, there was a favorable change as the IT industry resumed its development trajectory. Small and large businesses alike realized that they had to change to a largely digital environment where software solutions shaped everyday life and business activities (Doufexi & Pampouri, 2022). Accelerated Strategies Group found that 63.3% of company respondents said that speeding up the adoption of digital technologies for their organizations was a top priority (Iqbal et al., 2023). The development of software market is expected to grow to $698.80 billion in sales by 2024, surpassing its pre-pandemic level (Hamid & Ikram, 2024). According to Statista, the number of developers of software globally will reach up to 28.7 million approximately this year.

Targeted training can focus on the specific skills that are required by the software companies and by which talent development can be managed (Neycheva & Baltov, 2024; Shah, Bano, Saraih, Abdelwahed, & Soomro, 2023). A lack of research has been conducted so far based on the importance of targeted training for talent development (Capretz & Gilal, 2022). Therefore, this study tends to highlight the importance of targeted training in organizations and examine the gaps in targeted training which cannot be implemented effectively to maintain talent development. The different software companies can focus on their required tools for enhancing the competencies of their employees such as time tacking, project management, customer relationship management, communication, website building, payment transaction, sales/ promotion and public relations software, so every software company requires particular business needs in software for gaining competitive edge, therefore training of employees is necessary part of talent development. The software development tools include Jira, GitHub, Kubernetes, Jenkins, Eclipse, Cloud 9, Trello, J Unit, Microsoft Teams and Docker (Rauf et al., 2023). The software tools in 2024 needs to be trained to employees including cypher learning, TalentLMS, Absorb, iSpring, Docebo, Blackboard learning, 360 learning, Adobe and other software tools based on the company requirement (Arshad & Ali, 2023).

Targeted training consists of the following steps by which its impact can be made more effective (Kirkpatrick & Kirkpatrick, 2022). Always begin with the ultimate goal in mind, Examine the starting point. Make a relevant learning strategy. Measure outcomes accurately. First point is start with ultimate goal in mind (Khattak et al., 2024), before commencing staff training, the firm's objectives and requirements must be established. This is known as starting with the purpose in mind. Knowing the company's mission and the abilities its employees will require to accomplish its objectives is important. When an organization is aware of its goals, employers have a better understanding of how to train their workers (Kim & Roberson, 2022). It is important to understand the company's present skill level by analyzing the benchmark. This will make it easier to comprehend the difference between employees' professional abilities and targeted talents.

Employers are in a position to decide what sort of action plan is required to address this gap (Kaliannan, Darmalinggam, Dorasamy, & Abraham, 2023). Managers can close a narrow gap between staff members' existing abilities and desired skills by creating short action plans. However, if the skills gap is substantial, the whole training and learning process must be overhauled to upskill people. Giving employees talent tests is the most effective technique to assess their present ability levels (Hongal & Kinange, 2020). Testing employees' skills is an impartial way to assess their existing talents. It's time to create individualized learning strategies for each

employee after the employers have determined the intended endpoint and evaluated their existing abilities (Donevska-Todorova, Dziergwa, & Simbeck, 2022).

All employees ought to be treated properly by their employers, but just not equally rather equity kinds of help. Employers have a responsibility to ensure that workers have access to all necessary resources to move from position A (the beginning) to point B (the end goal) (Chiang et al., 2022). Consider the following employee differences when developing individual learning plans since they may impact the kind of assistance that employers should offer to them: cultural differences, geographical boundaries, dialect and language, the existing level of skills concerning the required skills (senior, newbie, or junior), technology access. People can learn visually, aurally, or kinesthetically. To accommodate each of the three learning styles, think about using several training methods (Alqahtani, Siddique, Aseere, Alasiry, & Naveed, 2024) Some of the training programs that an employer might offer include the following (Gary, 2019). Learn by experiment is carrying out the role's actual responsibilities, one is gaining experience on the job.

Informal learning can also take place away from the workplace, employees can learn new skills by volunteering with other organizations, reading educational articles, or watching movies (Manuti, Pastore, Scardigno, Giancaspro, & Morciano, 2015). For instance, Employees who participate in firms' training programs e-learning courses and online training, etc. Employers might hire instructors to conduct training sessions on-site. The implementation of workshops takes a lot of effort and planning, it could be one of the best options to upskill professionals (Li, 2022). That's because the majority of workshops utilize simulations that accurately reflect the actual activities that participants will be required to complete (Padmaja & Mukul, 2021).

Analyzing the effectiveness of the training is the final step in upskilling employees. The majority of firms have trouble here. The workers participate in a training seminar that the employer arranges, and that's all. The issue is that the employees learned anything or that the training was successful in giving employees the necessary skills (Leon, 2023). Thus targeted training can be made effective to enhance talent development process in the organizations (Fachrunnisa, Gani, Nurhidayati, & Adhiatma, 2022).
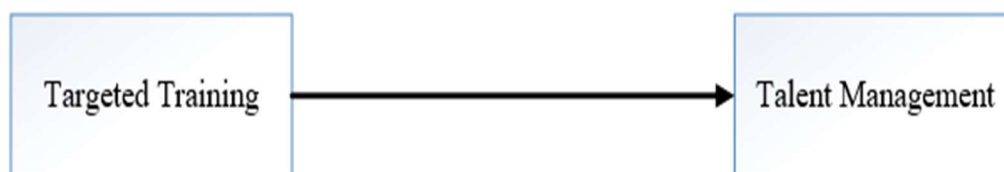
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Figure 1. Conceptual framework

3. Research Methodology
3.1 Study Selection

The research methodology adopted in this research is based on three main phases which are determined in Figure 2 given below. In the first phase, the importance of targeted training, its importance and need, ways of conducting this training program, and failures to adopt this study has been analyzed. Secondly, thematic analysis was formulated based on targeted training for enhancing talent development. The qualitative data gathered from the interview was examined based on a thematic analysis procedure with the help of NVIVO-12 software. For designing thematic analysis, five steps were analyzed based on (Braun & Clarke, 2006), including data familiarization, generation of initial codes, identification of themes, describing and recognizing themes, and then at last, preparing the final report. In the last phase, determining and collecting the main themes for targeted training and enhancing talent development were analyzed. In this section, the data collection method, study sample, and data analysis tool were discussed.
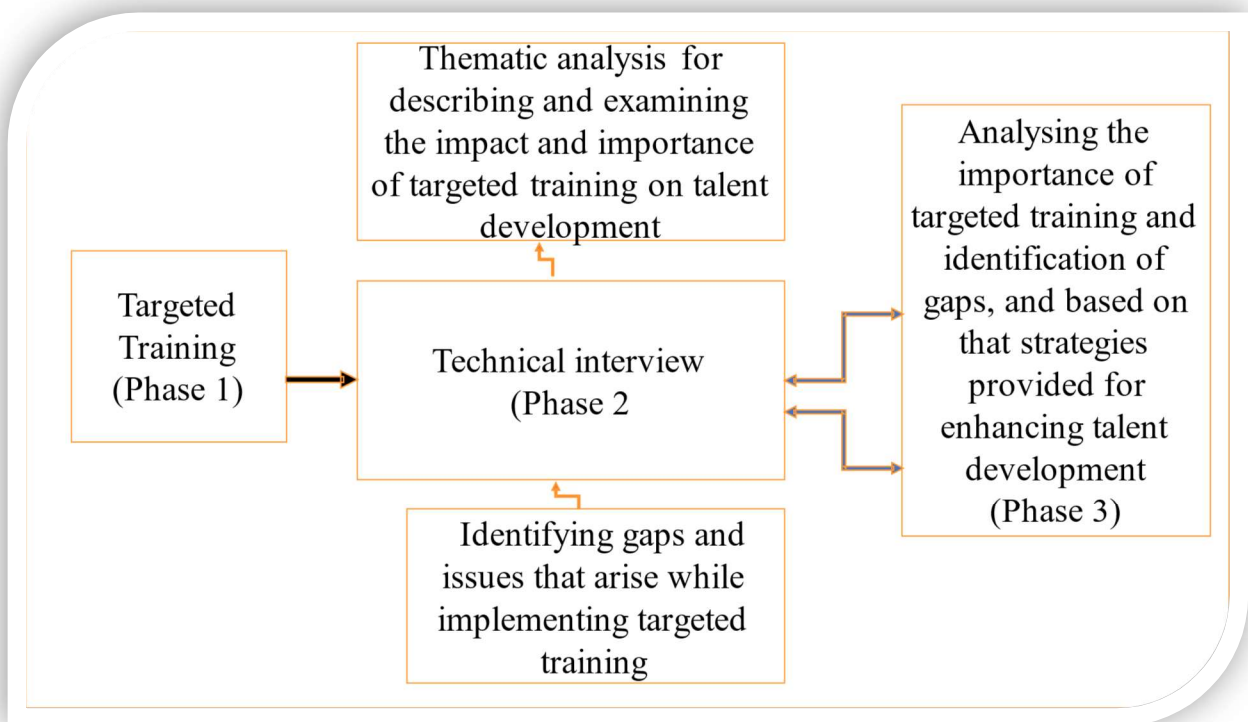

Figure 2. Study Approach

3.2 Data Collection Techniques

For this specific research, qualitative research is administered focusing on semi-structured interviews for obtaining and analyzing data. The qualitative technique is formulated to favor the researchers for understanding the targeted training concerning various perspectives, which is very arduous in quantitative aspects (Myers & Avison, 2002). Since it views facts as a subjective experience connected to individual differences rather than as an external reality, the qualitative technique is the most effective way to study participants' emotions, attitudes, and beliefs in greater detail (Creswell, 2021). Additionally, it is a useful strategy for smoothly achieving the study goals, as indicated. One benefit of the qualitative approach in this study is that it explores participant information to produce the actual response rather than merely collecting quantitative statistics. Because of this, the researchers were able to engage with managers, HR professionals, and

employers who are currently supporting and executing the focused training and its effects on talent development.

The data for this study were gathered using a semi-structured interview method. The core research questions were followed by further detailed questions that continued to follow the same pattern during the semi-structured interviews with the chosen participants in this research. The researchers used an interview guide, a list of general topics, rather than a codified set of questions during the semi-structured interview. Additionally, the semi-structured interview involved two-way communication because the interviewer and interviewees interacted through questions throughout the interview. To obtain additional data, the researchers were able to have more conversational contact using this strategy.

3.3 Population and Sample

The interviews were conducted with 30 employers and it is highlighted that 5-50 samples are enough for qualitative research (Sharma et al., 2024). As the targeted training is the basic factor in this study, so employers were contacted who are the main contributors for implementation of the targeted training and retention of talented employees. Therefore, managers, and HR officers like Systems Limited, AWK technologies (Pvt) Ltd, Averox, Elixir Technologies, and Koncept Solutions from Islamabad and Rawalpindi of software companies (houses) of Pakistan are considered as the main participants of this study and convenient sampling was selected. The interviews were conducted online and focused on the various questions originating from the research objectives. The age of the participants was above 40 and there were 24 males and 6 females. For minimizing the potential biasness, the interview questions were sent to interviewees earlier, so they can understand the questions and then answer effectively.

The interview questions consist of various parts such as the importance of targeted training, how it needs to be conducted, what the potential gaps are highlighted as targeted training do not implement effectively, and what is the impact of this specific training after the post-pandemic era, and do this era impact this training, and what is the way forward for the implementation of this strategy and what steps can be taken by managers to highlight its importance so that it can be managed effectively. The interview questions were designed for the collection of data from upper management, the context of the study, which is currently applying the following techniques in their software houses. Therefore, these software companies can help the researchers to find out the strategies and knowledge for achieving the objectives of this research.

Moreover, for explaining a more meaningful and detailed-oriented understanding of the problem of the research, the relevant employees were selected and they were the right persons for answering the questions that were asked to them during interviews, as they were well-familiar with the specific training and its impact on talent development. Based on Quick and Hall (2015), qualitative research with a range from 4-50 is sufficient and more data needs to be collected to determine appropriateness. Adding to this, participants need to be well- knowledge and they need to be the best representative and have the best knowledge of the area.

4. Results

The qualitative data obtained with the help of the interview was examined with the help of the thematic analysis technique using the NVIVO version 2.2v software. The basic purpose of this research is to analyze something significant from the collected data based on research questions. This helps to generate better findings and insights. While conducting thematic analysis, five steps were identified.

Step-1. Familiarization with Data & Generation of Initial Codes

First is the familiarization of data, generation of initial codes, then searching of the themes, describing and giving names to these themes, and then representing the final report, using NVivo 12. The process of coding started with this software with the help of the descriptive coding technique (Allsop, Chelladurai, Kimball, Marks, & Hendricks, 2022) through the words, phrases, and sentences with the data transcription process, and they were labeled through the relevant words based on targeted training and its impact.

Step-2. Creation of nodes and Sub-themes in NVivo
In NVivo, the process of coding is also called "nodes" which represents a gathering of references concerning the particular theme, area, and category of interest. Different sub-themes are then classified into further themes, based on the research area.

Step-3. Recording Interviews & Maintaining Confidentiality
The interviews were recorded on audio after taking the permission of the participants and then their identity was kept confidential, is an essential part of qualitative analysis.

Step-4. Debriefing Practitioners for Feedback
After the interview, the next process of debriefing was given to practitioners asking questions, and then they make comments or added any suggestion that did not get into a discussion in the session the interview.

Step-5. Transcription and Final Coding
Analyzing themes through transcription followed by coding is typical, themes were analyzed based on the transcription process. Review codes and themes iteratively to confirm consistency

5. Discussion
5.1 Findings
5.1.1 The role of targeted training in enhancing talent development
This section is based on the thematic findings which lead to the exploration of the impact and importance of targeted training. The figure given below shows the findings of the analysis in concern to definition, impact, importance, and challenges of targeted training.

5.1.2 Targeted training focusing on developing skills align with organizational goal
Businesses may avoid disruptions by providing employees with career routes through tailored training providing employees with career routes through tailored training, businesses may avoid disruptions. Employers and managers should work together to create these pathways, which include distinct benchmarks and goals for skill development and promotion. This career pathfinding approach not only aids in succession planning but also raises employee commitment to the organization and their jobs. One of the interviewees highlighted that *"targeted training provides the forum for the employees to manage their skills and work on the development of their talent"*.

It is highlighted that skill sets needed to be reformed and must cover the trends of the new activities of the organizational system so that they need to manage the change in the organizations. Based on that, the interviewees stated that *"skills sets are the different training techniques that aid in improving employees' skills so they can perform and produce at higher levels while also upskilling them to anticipate the future. Any business that makes targeted staff training investments benefits from increased success".* The targeted training needs to be real-time and customized according to the need of the hour and based on current trends of the organization. It is depicted by the interviewees that the learner's intellect will develop the ability to identify the components that can modify without influencing the demand to complete if we chose the appropriate situations. This offers instances that illustrate how to apply the skill in various contexts in which it remains

applicable and it also needs to be real-time, which means it is based on reality, not the ambiguities and fascinating, but should focus on available resources. These companies are providing training to employees in following key areas such Microsoft (Teams, Excel), Cloud 9, Blackboard learning, 360 learning, HTML5 builder, Jira, Power BI, Tableau, SQL, security trainings regarding data and Cloud computing on which they provide trainings to their new employees after hiring and new versions are shared with them through training process formally or some videos are made and shared with the employees.
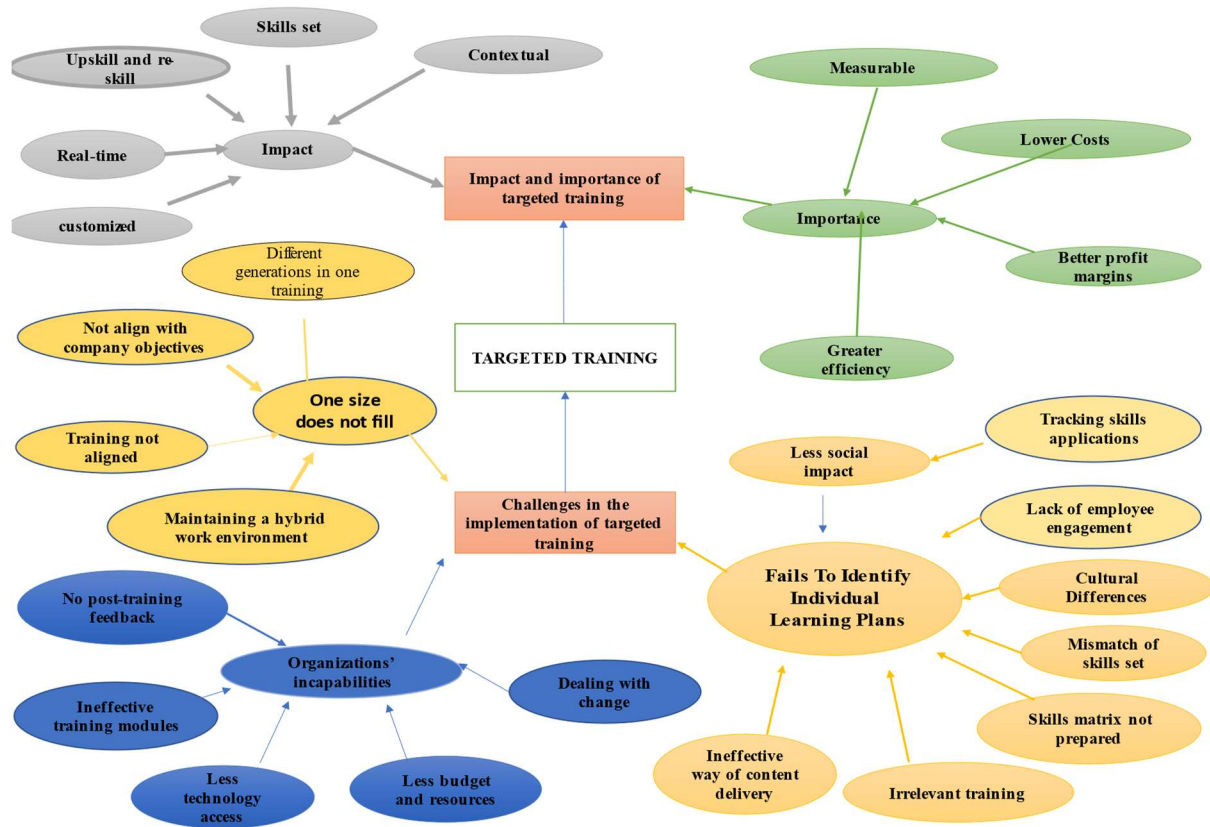

Figure 3: Thematic analysis

5.1.3 Importance of targeted training
Targeted training needs to be measurable, and as it is targeted, it just focuses on the main target areas, which helps to lower cost, greater efficiency, and better profit margins. It is stated by one of the interviewees that *"targeted training is effective as it has lower cost, due to just providing training on specific sources and it is significant impact during COVID-19, as due to lockdown, there was less interaction between employees, therefore, the organization just provide the required training and focused on the certain skills which reduce cost and impact on talent development"*

5.1.4 Challenges in implementing targeted training
It is highlighted that different challenges arise when implementing targeted training programs.

a) Fails to identify Individual Learning Plans
The best place to begin is with a skills inventory. *"The is a list of every certification, skill, and experience that each of your staff has but some certain are particularly requires more specific*

ones" it is highlighted that *"The information is often gathered through a combination of employee self-evaluations and business-conducted skills assessments. Software companies can determine if employees have the necessary abilities to satisfy the demands currently being placed on them and spot any skill gaps by using a skills inventory".* This approach also aids in the strategic decision-making process for HR professionals in the areas of training and development and recruitment. If the targeted training does not plan properly, then there will be a low social impact, less tracking skills applications, lack of employee engagement, cultural differences, mismatch of skills set, skills matrix not prepared, in relevant training, ineffective way of content delivery, factors highlighted by interviewees. It is also determined by interviewees that *"Targeted training ensures a state of readiness for individuals as they face the challenges of a changing marketplace. Software companies are providing training to develop the critical skills necessary to compete and grow as insurance professionals and trainers but if they are not managed properly, then leads to creates issues in learning skills".*

b) Organizational Capability

The targeted training can also be ineffective if the organization's capability is not sufficient and it may be due to the different factors identified by interviews such as post-training feedback, ineffective training modules, less technology access, less budget, and resources, and the company cannot manage the change properly. It is highlighted by interviews by a quote *Winston Churchill as he said once, " I'm always ready to learn, although I do not always like being taught."* And this is significant concerning that humans have different personalities and everyone has a different style of learning and also have different skills, and software companies must align these skills with the objectives of targeted training.

c) One size does not fit all

The third main challenge is one size does not fill all. The interviews have identified certain issues such as it is very hard to maintain a hybrid work environment, if training is not aligned properly with the objectives of companies, then training would not be successful. It is determined that *"different sets of people with various skills at present in the targeted training program"* as companies need to identify basic reasons.

5.2 Theoretical and practical implications

This study has theoretical and practical implications based on social cognitive theory. Targeted training can help the individual to improve their social skills while interacting with their colleagues and it helps to enhance the cognitive domain (San Juan et al., 2022). The practical implications of this research help to identify the software companies the importance of targeted training in the context of talent development and they work on different strategies to improve the skills of employees. The challenges are also identified and the employers and managers need to work on the skills of the employees, so that the actual target i.e., talent development can be enhanced. Targeted training in the software companies can provide employers with the direction to focus on the specific areas, updated technologies, software tools, particular technical skills and expertise (Leon, 2023). This type of training tends to focus on the talent such as employee's productivity and performance in the organizations.

5.3 Limitations, and Recommendations

This study has certain limitations in that it is qualitative in nature and the sample size is small. A program of this caliber will ultimately have a favorable financial impact on software companies.

this study has some limitations, that this is qualitative research, so furthermore quantitative research needed to be conducted in the future with a conceptual framework to highlight the importance of this new approach. The sample of the study is less, so this can be extended in other sectors for exploring the significant facets in the targeted training for developing talent in organizations.

5.4 Conclusion

It is concluded that software companies need to work on targeted training so that talent development can be more effective. Moreover, different strategies like measuring return on investment, building talent pool strategy, and identifying knowledge gaps, to make targeted training programs better. Targeted training is the need of the hour due to the lack of resources; and one of the most efficient tactics in software companies for cohesive software and business product strategy, robust, scalable, and secure cloud strategy, modern development methodology, Stepping up modernization and transformation efforts in supply chains and digital channels, accelerating cloud migration and modernization for bridging skill gaps, increasing team performance and productivity and managing resources effectively, and developing talented employees.

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