ANTECEDENTS OF SELF-EFFICACY OF SOFTWARE DEVELOPERS

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ABSTRACT

Software development companies are vital for driving economic growth and societal advancement in Myanmar. Their success heavily depends on the creativity and performance of software developers, which is influenced by their self-efficacy. This study primarily aims to identify the factors that contribute to self-efficacy. This study adopted a quantitative methodology, focusing on a sample of 242 software developers from the leading four software firms in Yangon, chosen through proportionate random sampling. Data was collected through online surveys using a 5-point Likert scale questionnaire, followed by regression analysis to fulfill the study's objectives. The investigation indicated that factors such as successful collaboration, an adaptable culture, transactional leadership, and ambidextrous leadership significantly enhance self-efficacy. Conversely, elements such as organizational learning, transformational leadership, enactive learning, and vicarious learning were identified as inadequate predictors of self-efficacy. These findings are crucial for software firms aiming to improve their developers' self-efficacy, which is vital for achieving organizational success. To capitalize on these results, companies in Myanmar can include ambidextrous and transactional leadership styles, foster collaboration, and endorse change efforts designed to enhance developers' self-efficacy. This strategic emphasis is expected to unveil substantial professional development opportunities inside Myanmar's software sector. The research provides essential insights for many stakeholders, including individual developers, software firms, the wider ICT sector, and government efforts for ICT progress.

Keywords: Organizational Culture, Leadership Styles, Individual Learning Orientation, and Self-Efficacy.

INTRODUCTION

In the current environment, technology is essential for the survival and expansion of enterprises worldwide, including those in Myanmar. Technological advancements empower firms to use creativity and innovation to fulfill client demands and expectations. In this setting, software engineers are crucial for fostering innovation across several industries, especially in the IT industry. As demand for customized software solutions rises, the need for skilled developers capable of tackling complex challenges and fostering innovation becomes increasingly urgent. A crucial psychological factor that impacts a developer's capacity for innovative work is self-efficacy. Self-efficacy, a notion created by Albert Bandura, denotes an individual's confidence in their capacity to do activities necessary for attaining desired outcomes. This belief plays a crucial role in influencing creativity and problem-solving skills.

Organizations may encourage individual creativity and encourage staff members to experiment with and implement creative ideas they believe will improve their job in order to boost self-efficacy. Businesses may benefit greatly from this rise in self-efficacy. Therefore, it's critical for Myanmar's software development companies to identify the factors influencing their developers' self-efficacy. While self-efficacy is inherent to the individual, both organizational and individual factors can play significant roles in enhancing self-efficacy related to innovation and overall performance. IT-driven initiatives require strong computer self-efficacy due to their reliance on extensive technology use. This self-efficacy is shaped by various internal and external influences, including personality traits and organizational elements. Specifically, factors such as organizational culture, leadership styles, and learning orientation are key to fostering self-efficacy.

The IT industry in Myanmar is experiencing rapid growth, fueled by a vibrant start-up ecosystem and increasing investments in technology.

However, this sector faces significant challenges. The fast pace of technological change creates an urgent

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need for innovation. Moreover, software development firms vary widely, each possessing distinct requirements and approaches to innovation. This diversity arises from the intangible nature of software, its inherent adaptability, and the relatively easy access to market entry. While there is extensive literature on the impact of psychological and sociological factors on self-efficacy, little research has focused on how organizational and individual factors might influence employees' computer self-efficacy. As a result, investigating how Myanmar's software companies can effectively manage these factors to boost self-efficacy and stimulate innovation among their developers offers a significant opportunity to enhance overall task performance.

This research is to investigate the function of organizational context elements as predecessors to developers' self-efficacy within the ICT sector, given the importance of self-efficacy for software developers in Myanmar's software development businesses. Gaining knowledge of these antecedents and the processes behind self-efficacy will help software businesses become more competitive, advance the ICT industry, and eventually support Myanmar's economic development. This study's main goal is to find out how individual and organizational variables affect software developers' growth and improvement of self-efficacy. The particular goals of the research include:

- To investigate the influence of antecedent factors—organizational culture, leadership styles, and individual learning orientation-on the self-efficacy of software engineers.
- To determine which factor (s) has the most significant effect on the self-efficacy of software developers.

LITERATURE REVIEW

The social cognitive theory, which stresses the idea of self-efficacy, serves as the foundation for this investigation. This theory states that people have two kinds of expectations about their behavior: outcome expectancies, which deal with the expected outcomes of certain activities, and self-efficacy, which represents their belief in their capacity to carry out particular acts. Self-efficacy indicates the level at which an individual feels capable of executing a task. In the software industry, social cognitive theory is frequently utilized to investigate self-efficacy, offering valuable insights into individual beliefs and perceptions about their ability to successfully undertake software development tasks. Social cognitive theory plays a crucial role in the software industry by illuminating key elements like observational learning, self-efficacy, feedback, and outcomes. When software developers learn from seasoned colleagues and industry experts, they can greatly improve their abilities, gaining insights into coding methods, problem-solving skills, and effective project management approaches.

Self-efficacy

The self-efficacy theory, rooted in social cognitive theory, was first introduced. Self-efficacy is a distinct set of beliefs that shape how effectively an individual can implement a plan in various situations. Scholars have emphasized self-efficacy's crucial role in fostering innovation. Self-efficacy is understood as a person's belief in their capability to succeed innovative outcomes, particularly in executing novel work behaviors. In the realm of software development, self-efficacy plays a vital role, significantly impacting developers' productivity, motivation, and resilience. When software developers possess high self-efficacy, they are more likely to take on challenging tasks, persist through obstacles, and exhibit greater creativity and problem-solving abilities. For this study, self-efficacy is defined as the belief in one's capabilities to complete tasks, influencing innovative work behavior in line with social cognitive theory.

Factors influencing self-efficacy

In this research, the factors influencing self-efficacy include organizational culture, leadership approaches, and personal learning preferences. These elements can significantly impact an individual's self-belief, ultimately influencing their motivation and performance in the workplace.

Organizational Culture

In the software development firm, distinctive cultural characteristics emphasize collaboration, promote continuous

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learning, and support innovative transformation. These elements highlight how a strong company culture boosts self-efficacy, which in turn enhances employee performance. A positive workplace culture plays a vital role in shaping employees' abilities to collaborate, learn, and adapt-key components for achieving success and driving innovation in the software development sector.

Teamwork culture and self-efficacy

Teamwork is a harmonious blend of coordinated efforts, collaborative interactions, and open dialogue that effectively resolves problems. Scholars emphasized the relationship between self-efficacy and teamwork, suggesting that individuals who recognize their skills in a group setting are more attuned to the contributions of others, boosting their social self-efficacy. Collaboration is crucial in the software development sector, especially within cross-functional teams where members engage in active communication and information sharing to produce cohesive software solutions.

Organizational learning culture and self-efficacy

Organizational learning is a continuous process of enhancing knowledge to improve performance, whereby individuals address challenges for the benefit of the company. The dynamic nature of the software development business makes this expertise particularly crucial for software development firms. Organizational learning positively impacts individual self-efficacy by fostering skill development, knowledge gain, and effective problem-solving. Software development organizations may adeptly adapt to the industry's dynamic nature, continually refine their processes, and achieve superior outcomes and enhanced organizational performance by actively fostering and implementing organizational learning.

Creating Change Culture and Self-Efficacy

For software development companies, embracing change is vital to meet evolving consumer demands, shifting markets, and advancing technologies. Improving self-efficacy involves understanding the behaviors and experiences tied to adapting to these changes. This is particularly important for employees in organizations experiencing transformation, as they must acclimate to new tools, processes, policies, programs, and systems. Therefore, nurturing a culture of change can enhance self-efficacy by promoting adaptive behaviors and effective responses.

Leadership styles

In addition to organizational culture, leadership styles are also recognized as key factors affecting self-efficacy. Effective leadership styles that impact employee self-efficacy include transactional, transformational, and ambidextrous leadership.

Transactional leadership and self-efficacy

Transactional leadership focuses on clearly defining team members' roles and goals while monitoring their progress. The effectiveness of transactional leadership can be assessed using three indicators: contingent reward, which involves acknowledging employee achievements and clarifying expectations; management-by-exception-active, where leaders promptly address problems and highlight mistakes made by team members; and management-by-exception-passive, in which leaders intervene only when issues become significant or persistent. Research suggests that transactional leadership fosters a future-oriented mindset, as it has been shown to enhance self-efficacy.

Transformational leadership

For a business to acquire and maintain a competitive edge, employee creativity is essential (Janssen, 2000). Overcoming self-interest is the goal of transformational leadership. The goals of this leadership approach are to

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foster dedication, emotional fortitude, teamwork, and internal drive. Trusted and appreciative of their environment, transformational leaders inspire their colleagues to go beyond their own limits in the quest for organizational excellence. "Idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration" are the four key components that define this leadership style. As a result, the special qualities linked to transformational leadership may raise self-efficacy.

Ambidextrous leadership and self-efficacy

Leaders must embody ambidexterity, which allows them to pursue multiple strategies simultaneously, including "exploration and exploitation, incremental and radical, and flexibility and control". Ambidextrous leadership is a blend of transformational and transactional leadership styles, where these two components interact dialectically in a unified direction. Scholars emphasize that ambidextrous leadership helps organizations navigate conflicting demands using a "both/and" approach instead of an "either/or" mindset. Leaders establish frameworks that inspire the organization to meet its challenges, exemplifying desired behaviors while encouraging adaptability through clear communication, training, and acknowledgment. Strong cognitive flexibility is essential for connecting ambidextrous leadership with individual self-confidence, which in turn boosts innovation effectiveness. This underscores the pivotal role leaders have in nurturing both exploratory and exploitative actions within their teams, emphasizing their significance in fostering self-efficacy and driving innovation.

Individual learning orientation

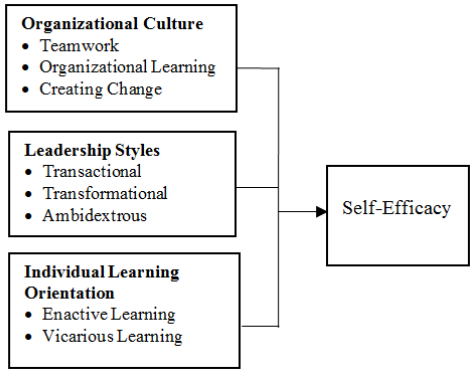
One of the most important sources of intrinsic motivation for mastery is a learning orientation, which is an internal perspective that propels people to improve their abilities. The development of self-efficacy is significantly influenced by an individual's learning orientation. In order to develop self-efficacy, learning is essential. There are two types of learning: vicarious learning, which happens via modeling and observation, and enactive learning, which includes learning through direct experience.

Enactive Learning

Enactive learning emphasizes the value of hands-on experience and experiential learning. By immersing people in their environment, this approach allows them to face results and relate them to constructivist ideas and cognitive development. Additionally, enactive learning is consistent with the idea of "learning through action," which calls for self-management, goal-directed activities, active participation, and self-evaluation.

Vicarious Learning

A substantial amount of human learning occurs vicariously, which means it takes place without the learner directly engaging in the task. Vicarious learning expands our understanding beyond the confines of direct experience, enabling individuals to gain insights without having to perform every action themselves. This method also protects individuals from the potential negative outcomes associated with direct involvement. Consequently, observational learning plays a key role in shaping knowledge acquisition. Based on the literature review, the conceptual framework of the study is established, as illustrated in Figure 1.



Source: Own Compilation based on Previous Studies (2024)

FIGURE 1

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CONCEPTUAL MODEL OF THE STUDY

METHODOLOGY

This research employed a quantitative methodology. According to the Myanmar Computer Industry Association (MCIA) (2022), the Yangon Region Computer Industry Association has registered a total of 62 software development firms. The research specifically targeted the four largest firms, each employing over 100 individuals, due to their prominent role and impact on the growth of e-commerce and the digital economy in Myanmar. The respondents comprised software developers from these companies, totaling 610 according to MCIA data from 2022. The sample size was calculated, aiming for a 95% confidence level.

The sample comprised 242 software developers, representing approximately 40% of the total population from the selected companies. These developers were proportionally distributed among the firms, and a random number generator was used to select 242 developers from the companies' lists. The results of the research were made more statistically valid and reliable by sending an email to the chosen respondents asking them to participate in the online survey. The MCIA and the websites of the corporations contributed more insights, while secondary data was collected from academic publications, government reports, and existing literature. To show the participants' demographic characteristics and perspectives, descriptive statistics were used. The impact of organizational and personal characteristics on software engineers' self-efficacy was also examined using multiple regression analysis. A structured questionnaire with 5-point Likert scale questions—1 being "strongly disagree" and 5 being "strongly agree"—was the study tool. There were two sections to the survey: While Part B concentrated on the three main elements affecting developers' self-efficacy—organizational culture, leadership styles, and personal learning orientation—Part A collected information on the respondents' personal and professional histories. The variables, the number of questions related to each, and the sources from which the questionnaire was modified are shown in Table (1).

Variables	Number of Items
Teamwork	5
Organizational Learning	5
Creating Change	5
Transactional Leadership	5
Transformational Leadership	5
Ambidextrous Leadership	10
Enactive Learning	5
Vicarious Learning	5
Self-Efficacy	10

Table (1) The Development of the Items in the Questionnaire

Source: Own Compilation (2024)

ANALYSIS AND RESULTS

First, the demographic data of the respondents was analyzed to better understand the characteristics of those who participated in the survey from the software development companies. According to the survey findings presented in Table (2), among the 242 participants, 78 (32.2%) were female, while 164 (67.8%) were male. The age analysis showed that the majority, comprising 132 developers (54.5%), fell within the 25 to 35-year age range. Additionally, 89 developers (36.8%) are under 25, while only 16 (6.6%) fall within the 35-45 age range. The oldest group, aged 45-50, comprises just 5 developers (2.1%). In terms of educational background, the majority of respondents, 156 (64.5%), hold bachelor's degrees, indicating that this level of education is quite common among them. Additionally, 37 participants (15.3%) reported having master's degrees, while 6 individuals (2.4%) hold various qualifications, including IT courses, training certifications, and diplomas. Notably, 43 respondents (17.8%) completed undergraduate degrees. Regarding work experience, the distribution varies among employees in the

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selected companies. A significant majority, 191 respondents (78.9%), have less than five years of experience. A different segment of the workforce includes 36 employees (14.9%) who have been with their organization for 5 to 10 years. Additionally, a lesser group of 15 individuals (6.2%) boasts over a decade of experience. The demographic details of the respondents are outlined in Table (2).

Characteristics		No. of Respondents	(%)
Gender	Male	164	67.8
	Female	78	32.2
Age (Years)	< 25 years	89	36.8
	25-35 years	132	54.5
	35-45 years	16	6.6
	45-50 years	5	2.1
Educational Qualification	Undergraduate	43	17.8
	Bachelor's Degree	156	64.5
	Master's Degree	37	15.3
	Others (e.g., IT certifications/ Training/Diploma)	6	2.4
Tenure at the Current Company (Years)	< 5 years	191	78.9
	5-10 years	36	14.9
	≥ 10 years	15	6.2
Total		242	100

Source: Survey Data (2024)

Table (2) Demographic Characteristics of the Respondents

In this study, all variables were evaluated using a Likert scale. To validate the accuracy and dependability of the assessments for every construct, reliability and validity tests were performed. Internal consistency was assessed. The results of these assessments are shown in Table (3). As noted, every variable achieved Cronbach's alpha scores exceeding 0.7, with the exception of the "creating change" variable, showcasing a strong degree of reliability and coherence within their respective item categories. The "creating change" variable had a Cronbach's alpha of 0.69, which is slightly below the threshold of 0.7. Nevertheless, this value is still considered acceptable for reliability, and variables close to 0.7 can be deemed reliable. Therefore, all variables, including "creating change," can be relied upon for analysis. Regarding the KMO test, all variables scored above 0.5, indicating adequate sampling adequacy for each variable.

Table (3) Reliability and Validity Test for Variables

Sr. No.	Variables	No. of Items	Reliability	Validity	
			Cronbach's Alpha	KMO	Significance
1	Teamwork	5	0.782	0.781	.000
2	Organizational Learning	5	0.766	0.772	.000
3	Creating Change	5	0.698	0.770	.000
4	Transactional Leadership	5	0.810	0.782	.000
5	Transformational Leadership	5	0.842	0.803	.000
6	Ambidextrous Leadership	10	0.953	0.692	.000
7	Enactive Learning	5	0.875	0.760	.000
8	Vicarious Learning	5	0.829	0.801	.000
9	Self-Efficacy	10	0.969	0.798	.000

Source: Survey Data (2024)

Prior to the main regression analysis, the average scores of software engineers were analyzed in order to assess their perspectives of the elements impacting self-efficacy. To make things clear, these scores were divided into three categories: poor perception is indicated by a mean score of less than 2, while moderate perception is represented by values between 2 and 3.5. A high perception of a given variable is indicated by a score of 3.5 or above. The results indicate that software engineers consider these variables to be crucial for their companies since the average scores for all self-efficacy-related categories are quite high, reaching 3.50. Interestingly, with an average score of 4.06, ambidextrous leadership achieved the highest grade. Furthermore, the average self-efficacy score is 3.97, indicating that respondents had a comparatively high degree of self-efficacy. Table (4) displays the outcomes for these important factors.

Table (4) Mean Values of Antecedents of Self-Efficacy

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Sr. No.	Items	Mean
1	Teamwork	3.89
2	Organizational Learning	3.90
3	Creating Change	3.92
4	Transactional Leadership	3.93
5	Transformational Leadership	3.95
6	Ambidextrous Leadership	4.06
7	Enactive Learning	3.93
8	Vicarious Learning	3.91
9	Self-Efficacy	3.97

Source: Survey Data (2024)

A multiple regression analysis was conducted to accomplish the study's goals, and the findings are shown in Table (5). The substantial beneficial impacts of ambidextrous leadership, transactional leadership, change efforts, and collaboration culture on self-efficacy are seen in this table. The most significant variable was ambidextrous leadership, which outperformed the other significant components with the greatest standardized coefficient (0.413). Nevertheless, the study results indicated that self-efficacy was not substantially influenced by corporate learning culture, transformational leadership, enactive learning orientation, or vicarious learning orientation.

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta (β)		
(Constant)	-0.213	0.298		-0.714	0.476
Teamwork	0.157*	0.089	0.129	1.772	0.078
Organizational Learning	0.039	0.113	0.029	0.340	0.734
Creating Change	0.203*	0.118	0.132	1.717	0.087
Transactional Leadership	0.363***	0.116	0.265	3.125	0.002
Transformational Leadership	0.033	0.102	0.026	0.323	0.747
Ambidextrous Leadership	0.489***	0.076	0.413	6.471	0.000
Enactive Learning	0.109	0.103	0.091	1.060	0.290
Vicarious Learning	0.124	0.104	0.100	1.186	0.237
R				0.714	
R^2				0.510	
Adjusted R^2				0.493	
F- test				30.350***	

Source: SPSS Outputs (2024)

Table (5) The Effect of Antecedent Factors on Self-Efficacy

The symbols ***, **, and * represent significance levels of 1%, 5%, and 10%, respectively.
Figure 2 displays the summary results derived from the data analysis, illustrating the relationships between the variables included in the study.

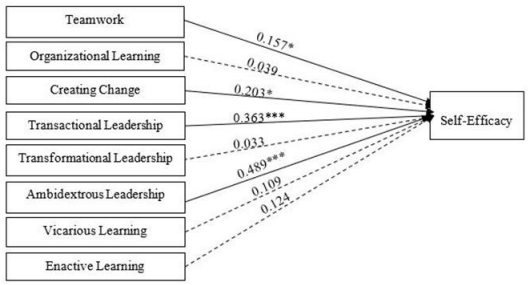

FIGURE 2
SUMMARY OF THE RESULTS

Source: Survey Data (2024)
Notes: Significant Insignificant

The dotted lines in Figure (2) make it abundantly evident that organizational learning, transformational leadership, enactive learning, and vicarious learning have no effect on self-efficacy. On the other hand, the solid

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lines show that ambidextrous leadership styles, transactional leadership, collaboration culture, and fostering a culture of change all significantly and favorably affect self-efficacy.

DISCUSSIONS

The study revealed a higher participation of males than females, likely due to greater male interest in IT and software development careers. This gender imbalance aligns with industry trends in Myanmar, which also tends to have a younger workforce driven by creativity. Most software developers possess Bachelor's degrees, emphasizing the importance of education in the field. The increasing demand for fresh talent is also reflected in the fact that many developers have fewer than five years of experience. With mean scores over 3.5, software engineers often have favorable opinions about leadership philosophies, corporate culture, and individual learning orientation—all of which are critical to their sense of self-efficacy. According to survey results, developers also see their self-efficacy favorably.

This study investigates how various antecedent factors influence self-efficacy in relation to the research objectives. The analysis indicates that software developers typically favor transactional leadership, especially in environments that follow the waterfall model, where detailed planning and structured workflows are emphasized. This leadership style clarifies roles and responsibilities, thereby enhancing the self-efficacy of developers by providing clear directions. Additionally, ambidextrous leaders play a crucial role by fostering innovation and efficiency. They navigate both incremental innovations through agile practices and long-term strategies, which helps maintain competitiveness and adaptability in the dynamic software landscape. The study also found that a teamwork culture significantly boosts developers' self-efficacy. Collaborating within teams provides motivation and resources to tackle challenges, reinforcing confidence in their abilities. Team leaders confirmed that supportive, collaborative environments enhance their members' self-confidence, with diversity being recognized as a crucial catalyst for innovation and change within the industry. Trust remains a fundamental value essential for success in software development. The study found a link between a culture of change and increased self-efficacy among software developers. A proactive culture that emphasizes adaptability, productivity, and continuous improvement enhances developers' confidence by viewing challenges as growth opportunities.

Interestingly, transformational leadership did not significantly boost self-efficacy, possibly because software development relies more on clear instructions than inspirational guidance. While transformational leadership can be beneficial in some contexts, transactional and ambidextrous leadership styles are more effective in aligning with the technical aspects of software work. Leadership effectiveness is context-dependent, suggesting that a blend of styles may be most impactful at different project stages. The study also indicated that an organizational learning culture may not effectively enhance self-efficacy. A lack of resources and misalignment between learning methods and developers' needs can hinder skill acquisition and motivation. Timely feedback is essential for monitoring progress and fostering confidence. From an individual learning standpoint, neither hands-on nor observational learning had a notable impact on enhancing self-efficacy. Enactive learning's limited impact may stem from a lack of real-world application opportunities. Similarly, vicarious learning alone often fails to translate into practical skills, especially if observed experiences do not align with individual goals. Overall, self-efficacy in software developers is best supported through active learning, practical experiences, and meaningful guidance, which together can significantly boost confidence.

RECOMMENDATIONS

To enhance the self-efficacy of software developers, organizations should adopt several interlinked strategies. Firstly, prioritizing transactional leadership styles is essential, particularly in structured environments like the waterfall model, where clear roles and responsibilities can enhance developers' self-efficacy through well-defined guidance. Furthermore, leveraging ambidextrous leadership will encourage leaders who can effectively navigate both agile and waterfall methodologies; this dual approach not only fosters innovation but also maintains efficiency, enabling teams to adapt to changing demands. In addition, cultivating a teamwork culture through initiatives such as regular team-building activities can significantly boost motivation and resource sharing, thereby

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enhancing developers' confidence. Moreover, emphasizing diversity and inclusion is crucial, as a diverse workforce brings varied perspectives that drive innovation and problem-solving. To support these efforts, fostering a culture of trust and change allows developers to take risks and view challenges as growth opportunities, complemented by implementing change management training for effective adaptation to new processes. Active learning opportunities, such as hands-on training and real-world project simulations, should also be provided to align practical learning experiences with developers' roles. Additionally, enhancing feedback mechanisms through timely and constructive input enables regular progress monitoring and reinforces self-confidence. It is equally important to align learning resources with developers' specific needs, tailoring training programs to improve engagement and skill acquisition. Lastly, encouraging blended learning approaches that combine enactive and vicarious learning with mentorship can provide meaningful guidance and reinforce practical skills development. By implementing these interconnected recommendations, organizations can effectively boost software developers' self-efficacy, ultimately leading to improved performance and job satisfaction.

CONTRIBUTIONS OF THE STUDY

This research provides important perspectives for various stakeholders in Myanmar, such as individual software developers, tech firms, and the wider ICT ecosystem, tackling fundamental issues within the software industry. On an individual basis, it emphasizes the role of self-efficacy in driving innovative task performance, highlighting that effective team leadership fosters a supportive culture for developers to thrive. By understanding the cognitive processes and traits influencing creativity, developers can adapt better, enhance task proficiency, and become more proactive. For software companies, the study provides critical recommendations for cultivating a strong team culture that leverages developers' innovative capabilities to reduce defects and improve user experiences. It suggests that companies can enhance developers' self-efficacy by addressing security and privacy challenges, ultimately allowing them to develop proprietary software and export ICT products globally, thus bolstering their market presence. Additionally, the study highlights the importance of self-efficacy in driving innovation within the ICT sector, positioning it as a leader in technological advancements and enabling the development of tailored software solutions for various industries. The software industry's innovations can also benefit other sectors-like healthcare, finance, and manufacturing-by improving efficiency and scalability. Finally, on a national level, advancements in software development can accelerate Myanmar's digital transformation, enhance technological competitiveness, attract foreign investment, and spur economic growth, enabling the country to keep pace with other ASEAN nations.

FUTURE STUDIES

To improve the study on self-efficacy, more research is needed. Future studies should look at various factors that influence self-efficacy beyond those found in Yangon's software companies. The surprising link between transformational leadership and self-efficacy should also be reexamined, specifically how leaders show confidence in their teams. Additionally, since the findings differ from earlier research on organizational learning, it is important to reassess these connections through strong methods like long-term studies. This can help understand how ongoing training and leadership can boost self-confidence and creativity in Myanmar's software sector. Instead of just focusing on individuals, researchers should consider teams as whole units to better capture teamwork and collaboration. Using mixed methods can help reduce bias and provide a richer analysis by combining numbers from surveys with insights from interviews. Future research should cover different industries and newer software companies to make the findings more applicable. Comparing studies across developing nations can reveal factors affecting self-efficacy and innovation. It is also useful to look at how age and education impact self-efficacy.

CONCLUSION

This study offers valuable insights for leaders in software development, particularly in enhancing

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developers' self-efficacy. It emphasizes the necessity of creating a positive environment within development teams, where culture and leadership styles play a critical role in shaping developers' confidence and innovative behavior. Importantly, the research advocates for a holistic approach that goes beyond leadership alone; it highlights the significance of supporting factors such as mentorship programs, training opportunities, and collaborative teamwork. By implementing these strategies, organizations can foster a work culture that prioritizes growth, creativity, and success in software development, ultimately strengthening their teams and contributing to economic advancement in Myanmar's CT industry. Furthermore, the study identifies key areas for future research, pointing to the need for exploration of additional factors that can enhance organizational performance in the software sector, especially in developing countries like Myanmar. Ongoing research will be essential for cultivating a dynamic and innovative software landscape.

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