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Impact of Transformational Leadership on Innovation among Managerial Employees in the Banking Sector in Cambodia

Sopheak Chea[1], Sarom Mok[2], Sarin Chey[3], Sereyrath Em[4]
[1]Asia Euro University, Phnom Penh, Cambodia
[2,3]The Ministry of Education, Youth and Sport, Phnom Penh, Cambodia
[4]The University of Cambodia, Phnom Penh, Cambodia

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ABSTRACT

Transformational leadership is recognized as a critical factor influencing creativity. This strategy should be executed to create an environment, procedure, and framework that fosters innovation in the banking sector. The current study aims to examine how transformational leadership (TL) influences product and process innovation within ACLEDA Bank Plc. in Cambodia. A total of 262 branch managers from ACLEDA Bank Plc. participated in this study, representing all branches of the bank across Cambodia. A quantitative design was employed in this study. Inspired by the Multi-Factor Leadership Questionnaire (MLQ), the first author of this study created and distributed a Transformational Leadership (TL) questionnaire. To minimize errors and ambiguity, the questionnaire forms were translated into Khmer and back-translated into English by experts, and the instruments were examined to confirm their validity by the field experts, too. The Khmer versions of the questionnaires were deployed in the field for testing, yielding a reliability coefficient of 0.93. The correlation between transformational leadership and innovation was examined using quantitative and explanatory analysis. This study employed structural equation modeling (SEM) using AMOS 20 software. The collected data were analyzed using descriptive and inferential statistics via computer software methods. The findings indicated that transformational leadership is crucial in fostering innovation within ACLEDA Bank Plc. The primary finding reached was that Intellectual Stimulation exerts minimal influence on the originality of products and processes. Individualized Consideration emerged as the foremost predictor of both aspects, succeeded by Idealized Influence and Inspirational Motivation, respectively. The study indicated that a transformational leadership style improves the overall performance of ACLEDA Bank Plc. by encouraging employee participation in creative processes and products. These findings enhance our comprehension of the mechanisms through which TL fosters creativity. Furthermore, they emphasize the benefits of generating more innovative findings and achievements.

Corresponding Author:

Sopheak Chea
Asia Euro University, Phnom Penh, Cambodia
Email: sopheak36@gmail.com

1. INTRODUCTION

For emerging and underdeveloped nations to make progress in areas such as social and grassroots development, sustainable economic growth, and climate change mitigation, they must make long-term investments in infrastructure, implement sustainable industrial innovations, and adopt innovative techniques. The three pillars of Industry, Innovation, and Infrastructure (Sustainable Development Goal 9) are described below. Industrialization is essential for the attainment of sustainable economic growth and the improvement of societal welfare [1]. In addition, there is a strong emphasis on the latest technological advances and cutting-edge talents. The infrastructures for transportation, information, and communication are fundamental aspects of development that are in accordance with these aims [2]. In addition, the banking industry is currently confronting global challenges as a result of the rapid changes in the business environment [3], [4]. To ensure its survival, the banking sector is being compelled to become more creative as a result of these changes [5], [6]. Since innovation is critical to the existence of any firm and a major factor in gaining a competitive advantage [7], managers consider increasing their employees' creative behavior to be their primary priority. Academic academics were extremely interested in determining what factors stimulate and sustain creativity [8]. One of the most significant elements that has the potential to either encourage or hinder the process of innovation is the approach that is taken by those in leadership positions [9].

Transformational leadership is the leadership style that is most widely recognized and commonly employed. It is related to innovation in leadership literature [10], [11], [12] and is considered to be the most important leadership style due to the nature of its impact. This method is essential for the development of the environment, structure, and process that enable companies to become innovative, as stated by Chan et al. [13] and Yuki [14]. As stated by Zheng et al. [12], transformational leadership promotes a feeling of unity and collaboration among those taking part, which increases the generation of new ideas. The transformational leadership approach has the potential to motivate employees to perceive the new task as a challenge that can foster creativity and help to establish a work environment that encourages innovation [15]. Creativity is stimulated by TL in an organization by fostering Idealized Influence (IIN), Inspirational Motivation (IMO), Intellectual Stimulation (IST), and Individualized Consideration (ICO) among the members of the organization [16]. As one of the most important strategic instruments available, transformational leadership has been highlighted as an essential component in facilitating innovation in order to achieve the desired outcomes [17]. Leadership that is transformational and innovative has been related in several studies that have been conducted in the past [18]-[12]. The majority of empirical research that has examined the relationship between innovation and transformational leadership has focused on developed countries such as the United States of America [19], [20], Taiwan [23], China [24], and Australia [21], [22]. Nevertheless, studies are scarce regarding similar occurrences in countries that are still developing [25]. As a result, it is strongly recommended that this research be expanded to include developing nations [25]. Cambodia, a country that is a member of the Association of Southeast Asian Nations (ASEAN) and is experiencing rapid growth, is a significant example or paradigm.

The banking sector in emerging countries, such as Cambodia, has dynamic challenges that necessitate innovative solutions. The banking sector, which is responsible for a very active 6.2% of the country's total gross domestic product (GDP) [25], is the central pillar of the Cambodian economy. Before the civil war, the banking industry in Cambodia was the most well-developed in the country; nevertheless, the civil war has had a significant impact on the banking industry, much like it has on every other industry in the country. This indicates that, in order to survive and prosper in today's extremely competitive marketplaces, banks must make use of innovation as a motivating element [25]. ACLEDA Bank Plc is one example of a bank that must do this. ACLEDA Bank Plc. was founded as a public limited company, as stated in the Banking and Financial Institutions Law of the Kingdom of Cambodia. In January 1993, it started out as a national non-governmental organization (NGO) with the goal of encouraging the growth and funding of micro and small companies. The National Bank of Cambodia issued ACLEDA Bank Limited a license to operate as a Specialized Bank on October 7, 2000. ACLEDA Bank Plc. is the first financial institution in Cambodia to receive ratings from two of the world's most prominent rating agencies: GIIRS and Standard & Poor's.

Unfortunately, empirical research on this area is rare in the Cambodian context. To address that gap in the literature, ***this study examines how transformational leadership dimensions (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration) affect product and process innovation in the Cambodian financial services industry in the case of ACLEDA Bank Plc***. In the context of this study, product innovation in the banking sector refers to the adoption, creation, and application of new goods. It refers to how staff members look for cutting-edge solutions, create new services, and implement the newest technologies to suit client needs. Process innovation is defined as implementing new, significantly altered production techniques and distribution channels through modifying technical equipment or software.

According to a number of studies, TL is a crucial facilitator of process and product innovation. The four dimensions of TL (IIN, IMO, IST, and ICO) have been examined explicitly in relation to one another. According to a review of the literature, the majority of the research to date has focused on the relationship between TL and various forms of innovation, including exploitative and exploratory innovation [12], technical and administrative innovation [26], and radical and incremental innovation [27]. However, there has not been a thorough investigation of the connection between TL and innovations in products and processes [28], [29]. Thus, a thorough investigation into how each element of TL affects innovation, especially in the areas of product and process innovation, is required. The research conceptual framework is provided below:

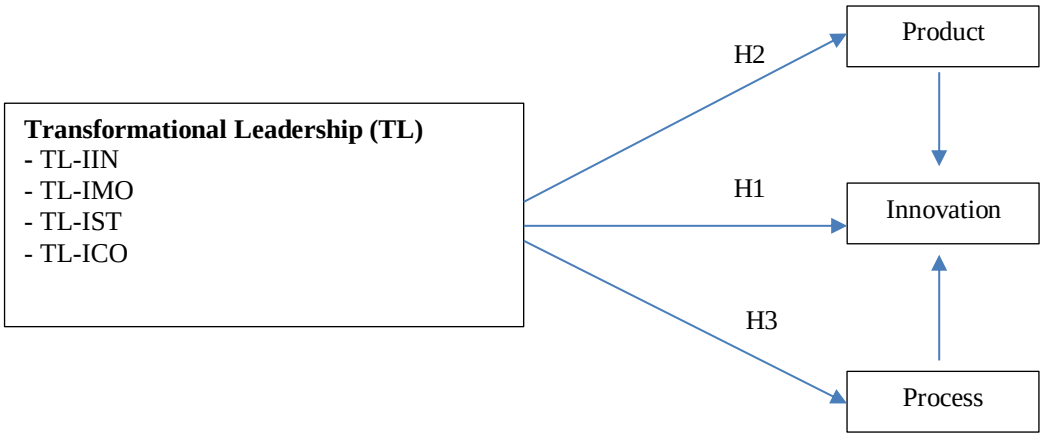

Figure 1. Research Conceptual Framework

2. RESEARCH METHOD

This section outlines the methodological framework utilized in the investigation. The text outlines the research design, tools, sample size, data collection methods, data analysis, and ethical concerns that informed the study on the correlation between transformational leadership and innovation at ACLEDA Bank Plc. in Cambodia.

2.1. Design

This study utilized a quantitative design to investigate the correlations between transformational leadership practices and organizational creativity. The inquiry concentrated on the fundamental aspects of transformational leadership: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, and their possible benefits to product and process innovation. The study aimed to produce empirical insights into how transformational leadership techniques might improve inventive skills and promote organizational growth by including these constructs within a quantitative framework.

2.2. Research Instrument

This study utilized a self-administered questionnaire using five-point Likert scales, with 1 indicating “strongly disagree” and 5 indicating “strongly agree.” A total of 262 surveys were disseminated via email to ACLEDA Bank branch managers, all of which were successfully returned, resulting in a 100% response rate. The study utilized the Multi-Factor Leadership Questionnaire (MLQ, Form 5X), created by Bass and Avolio, to assess transformational leadership. The MLQ is acknowledged as the most validated tool for evaluating transformative leadership and has been extensively utilized in prior empirical research, ensuring both reliability and comparability of findings across studies.

The four structures were covered by 21 items in total: (1) Idealized Influence (six-items) is about feeling proud of the leader, fostering respect for one another, putting others before oneself, behaving with confidence and authority, acting in accordance with values and beliefs, and taking the moral and ethical implications of every choice into consideration; (2) The five elements of Inspirational Motivation include presenting a compelling vision,

encouraging enthusiasm for the tasks at hand, demonstrating confidence in the accomplishment of objectives, cultivating a sense of teamwork, and speaking positively about the future; (3) Five-item Intellectual Stimulation involves encouraging subordinates to think differently about difficulties, suggesting fresh approaches to tasks, finding out different perspectives while solving problems, rethinking ideas, and promoting rechecking ideas; and (4) Individualized Consideration (five elements) focuses on how leaders teach and coach, treat each group member as an individual, recognize their unique needs, skills, and abilities, help them improve their capacities, and assist them in achieving their goals.

In this study, innovation was measured using 20 criteria that spanned both the product and process dimensions, which is rather remarkable. These criteria provided a comprehensive framework for analyzing how firms introduce novelty and improvement in their operations. The research study sought to convey the multidimensional nature of innovation as it applies to organizational development and competitiveness by concentrating on both facets of the concept.

The criteria included developing new ideas for products and processes through the use of the newest technologies, bringing new products and services to market, seeking cutting-edge solutions to organizational problems, utilizing advanced technologies to improve processes, implementing unique process management strategies, adopting flexible management approaches, introducing changes to management structures, practices, and techniques, as well as applying new marketing strategies in promotions and services. Together, these indicators reflect the diverse aspects of innovation that are critical for sustaining growth and adaptability in dynamic environments.

The items measuring product and process innovation were adapted from prior studies conducted by Birasnav et al. [30], Easa [31], Kim et al. [32], Prajogo and Sohal [33], Obeidat [34], Tan and Nasurdin [35], and Tsai et al. [36]. The dependability and credibility of the findings of this study were bolstered by the fact that the measurement of innovation in this study was both empirically valid and conceptually grounded. This was accomplished by drawing from these previous publications.

2.3. Research Sample Size

To gather a representative sample from the population of interest, or what is known as the targeted population, researchers might use numerous approaches [37]. According to Majid [37], all of these tactics are referred to as sampling approaches. The population of interest, the significance level, and the research questions are the three factors that determine which procedures are used in a study. Due to its significance, the study's target population consisted of all bank branch managers employed by ACLEDA Bank Plc. in Cambodia, which included 263 branch offices spread throughout all 25 provinces and cities.

In this study, only 262 bank branch managers who work for ACLEDA Bank Plc. Across Cambodia, the first author was excluded as a bank branch manager. The surveyed samples were selected using convenience sampling due to the fact that they were affiliated with ACLEDA Bank Plc. Numerous intrinsic advantages of this sampling technique include its affordability, ease of use, and reduced time commitment. These managers varied in age, position, education, and years of experience.

2.4. Data Collection Procedures

The study approval was requested from Asia Euro University (AEU) before starting the procedure. After obtaining AEU approval, the first author asked the top management of ACLEDA Bank for an approval letter to grant permission and facilitate the study. This letter informed branch managers of the study's purpose and asked for site consent. ACLEDA sent a study announcement to the designated branch offices after gaining clearance. The first author gave the survey respondents a chance to evaluate the purpose of the study and discussed it. The informed consent forms were willingly read and signed by the survey samples. The first author also provided answers to every query posed by the research samples. A week later, the follow-up process was carried out over the phone to increase the response rate. In Cambodia, two hundred sixty-two branch managers from ACLEDA Bank Plc. participated in the survey.

2.5. Data Analysis and Interpretation

Analysis of Moment Structures (AMOS) 20 and structural equation modeling (SEM) were used to investigate how intellectual stimulation, idealized influence, inspiring motivation, and personalized attention affect the development of new products and processes. Measurement models assess the constructs' validity and reliability, while structural models investigate the causal links between variables [38], [39]. Drawing on the aforementioned notes, the following hypotheses are the focus of this study:

H1: TL positively impacts product and process innovation in ACLEDA Bank Plc. in Cambodia.

H2: TL-IIN, TL-IMO, TL-IST, and TL-ICO positively impact product innovation in ACLEDA Bank Plc. in Cambodia.

H3: TL-IIN, TL-IMO, TL-IST, and TL-ICO positively impact process innovation in ACLEDA Bank Plc. in Cambodia.

2.6. Ethical Consideration

Ethics must be considered in any study that uses human data collection. When conducting research, researchers must consider obtaining agreement, access to people, and confidentiality. The researcher submitted an application to the AEU for ethical approval. The AEU's top administration gave final consent to begin data collection. Along with other relevant details, such as the study's voluntary nature and the confidentiality of research samples, the informed consent form contained the purpose of the current investigation. Furthermore, research subjects have the right to withdraw from the study at any time.

3. FINDINGS

This study utilized a quantitative methodology to investigate the correlation between transformative leadership and innovation at ACLEDA Bank Plc. The subsequent subsections delineate the research design, instruments, sample size, data collection methodologies, data analysis techniques, and ethical considerations implemented in the study.

3.1. Validity and Reliability of the Measurement Model

Response items (observed variables) and their underlying latent variables are related, according to the measurement model. The two primary evaluation criteria are the measurement model's goodness of fit and the construct's validity and reliability. Confirmatory factor analysis was performed on all variables using AMOS 24 to determine the validity and reliability of each construct and goodness-of-fit (GOF). Factor loadings and average variance extracted (AVE) are evaluated to examine convergent validity; a value of 0.5 or greater is considered significant [38].

Table 1. The Internal Reliability and Convergent Validity of ACLEDA Bank Plc. (N=262)

Factors	Code	FL	AVE	Alpha	CR
Idealized Influence (IIN-F1)	TL-IIN1	0.74	0.59	0.85	0.83
	TL-IIN2	0.77			
	TL-IIN3	0.73			
	TL-IIN4	0.67			
	TL-IIN5	0.60			
Inspirational Motivation (IMO-F2)	TL-IMO1	0.65	0.58	0.81	0.72
	TL-IMO2	0.51			
	TL-IMO3	0.50			
Intellectual Stimulation (IST-F3)	TL-IST1	0.56	0.63	0.79	0.70
	TL-IST2	0.69			
	TL-IST3	0.53			
	TL-IST4	0.59			
Individualized Consideration (ICO-F4)	TL-ICO1	0.57	0.61	0.78	0.71
	TL-ICO2	0.67			
	TL-ICO3	0.71			
	TL-ICO4	0.52			
Product Innovation (PIN-F5)	TL-PIN1	0.67	0.59	0.90	0.85
	TL-PIN2	0.72			
	TL-PIN3	0.74			
	TL-PIN4	0.66			
	TL-PIN5	0.70			
	TL-PIN6	0.71			
Process Innovation (PrIN-F6)	TL-PrIN1	0.65	0.71	0.91	0.82
	TL-PrIN2	0.62			
	TL-PrIN3	0.57			
	TL-PrIN4	0.68			
	TL-PrIN5	0.67			
	TL-PrIN6	0.77			

Note: TL= Transformational Leadership, AVE= Average Variance Extracted, FL= Factor Loading, CR= Composite Reliability

As indicated by Table 1, which is seen above, there were 28 items utilized in the testing of six elements, which included intellectual stimulation, individualized consideration, idealized impact, inspiring motivation, product innovation, and process innovation. Reliability was evaluated using Cronbach's alphas and Composite Reliability (CR), both of which should be greater than 0.7. In this regard, both the convergent validity and the internal

dependability were deemed to be acceptable. The critical ratio (CR), average error (AVE), and all factor loadings were large and acceptable.

Table 2. Factors and AVEs Correlation Analysis of ACLEDA Bank Plc. (N=262)

Factors	1	2	3	4	5	6	7	8
TL-IIN	0.60							
TL-IMO	0.06	0.49						
TL-IST	0.07	0.06	0.63					
TL-ICO	0.05	0.08	0.02	0.61				
TL-PIN	0.08	0.07	0.03	0.21	0.59			
TL-PrIN	0.23	0.03	0.05	0.23	0.12	0.71		

In order to assess the discriminant validity, the rule of [40] was utilized, as can be observed in Table 2. According to their claim, the average variance extracted (AVE) ought to be more than the squared inter-construct correlations, and it ought to be higher than 0.5. The constructs produced variances that were greater than the squared correlations between all of the items considered. It ought to be pointed out that the square roots of the average variance extracted (AVE) are represented by the bolded numbers in the diagonal row of the matrix. All of the correlations that exist between the variables have a significance level of 0.01 in a two-tailed test.

Table 3. The Levels of Goodness of Fit for the Measurement Model of ACLEDA Bank Plc, (N=262)

Fit Indices	Transformational Leadership (TL)	Innovation	Criteria
GFI	0.91	0.93	≥ 0.85
RMR	0.02	0.02	< 0.05
AGFI	0.88	0.90	≥ 0.80
RMSEA	0.06	0.06	< 0.05-0.10
CFI	0.94	0.97	≥ 0.90

As presented in Table 3, the measurement model's goodness of fit was evaluated and determined to be satisfactory, indicating that the hypothesized model adequately represents the observed data. The assessment was based on a range of widely accepted indices, including absolute fit measures such as the Goodness of Fit Index (GFI), the Root Mean Square Residual (RMR), and the Root Mean Square Error of Approximation (RMSEA); incremental fit measures such as the Adjusted Goodness of Fit Index (AGFI); and comparative measures such as the Comparative Fit Index (CFI). For the TL constructs, the indices were GFI = 0.91, RMR = 0.02, AGFI = 0.88, RMSEA = 0.06, and CFI = 0.94. Similarly, the model fit indices for originality were GFI = 0.93, RMR = 0.02, AGFI = 0.90, RMSEA = 0.06, and CFI = 0.97. These values fall within the recommended thresholds in structural equation modeling literature, where GFI, AGFI, and CFI values above 0.90 suggest good fit, RMR values below 0.05 indicate acceptable residual levels, and RMSEA values less than 0.08 reflect reasonable error of approximation. Taken together, the findings confirm that the measurement model demonstrates an acceptable to good fit to the ACLEDA

Bank sample data, thereby supporting the reliability and validity of the constructs used in this study.

3.2. Validity and Reliability of the Measurement Model

The primary goal of this study is to investigate how the four TL components affect process and product innovation in ACLEDA Bank Plc. in Cambodia.

Table 4. Result of the Structural Model Fits for the Direct Relationship of ACLEDA Bank Plc. (N=262)

Fit Indices	TL-Innovation	Criteria
GFI	0.86	≥ 0.85
RMR	0.03	< 0.05
AGFI	0.83	≥ 0.80
RMSEA	0.05	< 0.05-0.10
CFI	0.93	≥ 0.90

According to the findings of the SEM, which are shown in Table 4, the model has a satisfactory level of fit, and the fit indices are good. The model fit indices are as follows: CFI = 0.8,69 RMR = 0.027; AGFI = 0.844; RMSEA = 0.051; CFI = 0.948.

Table 5. Testing Hypotheses for the Direct Effect of TL on Innovation of ACLEDA Bank Plc. (N=262)

Research Hypothesis	Correlational Variables	β	CR	Sig.	Null Hypothesis
H1	TL ➡ Innovation	0.80	9.45	***	Accepted
H2	IIN ➡ Product	0.13	3.36	***	Accepted
	IMO ➡ Product	0.16	2.87	*	Accepted
	IST ➡ Product	-0.21	-3.22	**	Rejected
	ICO ➡ Product	1.10	8.61	***	Accepted
H3	IIN ➡ Process	0.05	1.05	-	Rejected
	IMO ➡ Process	0.15	2.20	*	Accepted
	IST ➡ Process	-0.17	-2.33	**	Rejected
	ICO ➡ Process	1.33	8.74	***	Accepted

Note: *p* <0.05, p** < 0.01, p*** < 0.001, CR=Critical Ratio, - =Insignificance.*

The findings of the study, as can be shown in Table 5, indicate that TL has a major impact on the process of innovation, as well as on the goods that are developed. The findings of the study, which go against what was anticipated, demonstrate that there is a negative relationship between intellectual stimulation and innovation in products (β=-0.21, CR=-3.22). At these levels, the path coefficients indicating the impact of TL are confirmatory. Product innovation is strongly and positively correlated with IIN, IMO, and ICO (β=0.13, CR=3.36; β=0.16, CR=2.87; β=1.10, CR=8.61). Based on this, it can be said that invention is negatively impacted by IST (β = -0.210), but ICO (β = 1.10) makes the greatest contribution to product innovation. The H2 is accepted, whereas the H2-IST is refused, as a result of which the product innovation grows as IIN, IMO, and ICO increase.

A considerable negative predictive capability on process innovation is demonstrated by IST (β=-0.17, CR=-2.33), while IMO (β=0.15, CR=2.20) and ICO (β=1.33, CR=8.74) exhibit strong positive correlations with process innovation. Nevertheless, because only IIN (β=0.05, CR=1.05) is seen, the impact on process innovation is insignificant. As per this, IST (β=-0.21) has a negative predictive influence on innovation, while ICO (β=1.33) has the greatest impact on process innovation. As a result, H3 is approved, and product innovation grows in tandem with the International Maritime Organization (IMO) and the International Coffee Organization (ICO), except for the case of H3, which supports the dimensions of the International Institute of Nutrition (IIN) and Information Security Technology (IST).

4. DISCUSSION

The SEM findings show strong proof that transformational leadership (TL) had a favorable impact on ACLEDA Bank Plc's innovation process and product. That means that TL practices accounted for almost 75% of innovative behavior. The relationship between each of the TL dimensions and innovation is covered in greater detail in the section that follows.

Accordingly, the quantitative data revealed that H2 exhibited a positive correlation between IIN and product innovation; however, H2 indicated that IIN had no significant impact on process innovation at ACLEDA Bank Plc. in Cambodia. This indicates that when employees have confidence in their leaders, they are more inclined to employ innovative strategies for product launches, including generating novel ideas, developing new services, embracing alternative methodologies, and adopting advanced technologies. The findings substantiate the assertion that idealized leaders cultivate robust networks with their subordinates and articulate a coherent vision, resulting in enhanced product innovation and organizational transformation [41], [42], [43], [44], [45]. Nonetheless, the data indicated that employees regard their leader's role modeling conduct as significant. Nonetheless, it is inadequate for them to adopt new process innovations, including the implementation of novel marketing tactics, the utilization of advanced technology to improve operations, and the adherence to a formalized procedure to elevate customer service. The findings corroborate the assertions of Orabi [46] and Tharnpas and Boon [47] that respect and trust do not invariably motivate followers to adhere to their leader's directives; thus, leaders exhibiting idealized influence adversely affect process innovation.

Innovation in banking processes and products is favorably correlated with Inspiring Motivation (IMO). This showed that inspirational leaders will inspire bank employees and help them reach their full potential, which will help their bank pursue innovation, including coming up with new ideas, creating new services, embracing new solutions, and implementing new technology. They will also employ adaptable tactics to handle unforeseen changes. These findings contradict those of Rafferty and Griffin [48], who demonstrated that clearly expressing a vision does not always positively impact innovation. Nonetheless, the findings of this study support the claim that inspirational leaders foster an atmosphere that encourages organizational members to be creative and inspired, which can then provide them with guidance for effectively creating new goods and procedures [40], [42], [12].

Innovation in products and processes was negatively impacted in terms of Intellectual Stimulation (IST). This indicated that the employees of ACLEDA Bank who participated in the survey felt that their managers' intellectually stimulating and novel approaches to completing tasks did not inspire them to be creative, generate fresh concepts, or use innovative methods at work. According to the study, ACLEDA Bank management should foster an innovative work environment, support employee creativity, and let workers make their own decisions to boost productivity, empower, and educate workers. This would increase intellectual stimulation. To put it another way, staff are urged to look for alternative viewpoints when addressing issues, reinterpret existing problems from fresh angles, and reconsider concepts that have never been challenged before, but this does not aid in creating new goods or innovative processes. Therefore, they are unwilling to try new things, such as coming up with new ideas, creating new services, accepting new solutions, implementing new technologies, and using adaptable tactics to deal with unforeseen developments. These findings align with those of Li et al. [49], who found that intellectual stimulation did not create a favorable environment for individual innovation, and Jaussi and Dionne [50], who demonstrated that intellectual stimulation leadership has a detrimental effect on innovation. However, prior research by Jia et al. [51], García-Morales et al. [52], and Paulsen [53] has indicated that intellectually stimulating leaders are essential for innovation, especially in product and process. These findings contradict those findings.

Individualized Consideration (ICO) has a good correlation with process and product innovation in ACLEDA Bank Plc. This implied that the staff from ACLEDA Bank who participated in the survey felt that their managers cared about them personally, encouraging them to be creative, think of new ideas, and use innovative methods at work. This included coming up with new ideas, creating new services, accepting new solutions, implementing new technology, and using adaptable tactics to deal with unforeseen changes. These findings contradict those of Mokhber et al. [54], who demonstrated that empowerment can also have detrimental effects on innovation when followers' objectives conflict with or are out of line with those of the organization. Nonetheless, these findings support earlier research that suggests leaders can encourage employees to generate and apply ideas by using consulting, delegating, and supporting behaviors [12], [52], [42].

5. CONCLUSION AND RECOMMENDATION

This section delineates the primary conclusions derived from the study and provides recommendations for subsequent research endeavors. The conclusions emphasize the theoretical and practical ramifications of transformational leadership on product and process innovation at ACLEDA Bank Plc., while the recommendations offer guidance for broadening the scope and depth of future studies.

5.1. Conclusion

1. This study has several theoretical and practical ramifications. This study examined how TL affected innovation in ACLEDA Bank Plc. in Cambodia. The study's conclusions are noteworthy and add to the knowledge on innovation and leadership. From a theoretical standpoint, earlier studies define TL as a single factor in general and associate it with various

forms of innovation. This study is the first to try to test the effects of the various TL dimensions on product and process innovation empirically; in particular, it looks into the effects of idealized influence, intellectual stimulation, inspirational motivation, and individualized consideration. The study's conclusions support the notion that the four key dimensions of TL (IIN, IMO, IST, and ICO) have an impact on both product and process innovation. They also contribute to a better understanding of how each of the four elements influences innovation independently.

2. This study discovered that using TL behaviors that are based on IST had a negative impact on process and product innovation. Banks must foster an innovative environment that encourages employees to take initiative, take chances, and be challenged to look for novel ways to do their jobs in order to allow all employees to participate in innovation. One such opportunity is brainstorming sessions. It has been proposed that by questioning the status quo and promoting problem reformulation, creativity, intellectual curiosity, and innovative approaches, employees will be inspired to look for diverse viewpoints while addressing issues and to think of fresh and innovative ways to complete tasks.

3. This study also revealed that TL styles have distinct roles in process and product innovation. According to this result, the bank should choose a branch manager with the right leadership style to accomplish its particular goals. For instance, if the bank wants to launch new goods or services, it needs a leader who possesses an intellectually stimulating style and pushes staff to think outside the box when addressing difficulties and to think of fresh and innovative ways to finish tasks. The bank would also want a leader who can develop a clear and consistent vision for the business's future objectives and has an inspiring and motivating approach.

5.2. Recommendations for Further Studies

1. It is important to acknowledge the limitations of this research, even though it offers valuable insights into the connections between TL and innovation in ACLEDA Bank Plc. in Cambodia. Since the TL style is the exclusive focus of this study, it is advised to investigate the effects of other leadership philosophies, specifically transactional and laissez-faire leadership, to determine which has the greatest influence on employee innovation in processes and products. Because this study was limited to banks in Cambodia, the findings cannot be extrapolated to other industries. However, as these and other studies push the limits of national and sector context, generalizability and influence of TL on product and process innovation only grow stronger.

2. Taking into account various administrative levels could help one better understand the subject of the study. The cross-sectional design of this study may cause the causal linkages to shift over time. A longitudinal study will overcome this restriction and prove the findings. It is advised to consider various forms of innovation, such as administrative, technological, radical, incremental, exploitative, and exploratory, as this study focuses on the influence of TL on product and process innovation.

NOTE

TL = Transformational Leadership
IIN = Idealized Influence
IMO = Inspirational Motivation
IST = Intellectual Stimulation
ICO = Individualized Consideration
MLQ = Multi-Factor Leadership Questionnaire

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