Driving Employee Proactivity: Investigating the Underlying Self-Efficacy Mechanisms of Transformational Leadership

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Abstract. By analysing survey data from Malaysian public sector employees, this study examines how transformational leadership influences self-efficacy motivation and proactive behaviour. The SmartPLS-SEM results demonstrate a significant mediating effect of self-efficacy motivation. It contributes new empirical evidence that enriching transformational leadership practices can foster employee self-belief and positive workplace actions. From a practical perspective, the research also offers recommendations tailored to the organisational context, focusing on coaching skills and motivation building.

Keywords: Self-Efficacy Motivation, Proactive Behaviour, Transformational Leadership.

1. Introduction

Decision-making has recently been recognised as crucial in leadership behaviour research (Torlak, Demir & Budur, 2022; Motloung & Lew, 2023). Effective leaders usually integrate strategy and leadership in formal and informal decisions (Motloung & Lew, 2023; Dubey, Pathak & Sahu, 2023). In a formal decision-making style, leaders use authority to make a formal discussion by controlling employees' career progress, improving management, establishing communication, and emphasising directives and hierarchical protocol-driven relationships (Motloung & Lew, 2023; Dubey, Pathak & Sahu, 2023). Conversely, in informal decision-making, leaders use authority to develop and strengthen good relationships with group members by engaging them in all organisations' specific requests and ad-hoc matters. Both leadership styles are equally important and complement each other to handle stable and uncertain situations by building and reinforcing positive task relationships, enhancing personal and professional credibility, adapting to the environment, and meeting future expectations (Torlak, Demir & Budur, 2022; Motloung & Lew, 2023).

In a rapidly changing economic and technological environment, contemporary businesses and organisations must adapt to various challenge-oriented approaches to achieve increasingly complex strategic goals (Morgan & Anokhin, 2020; Taghvaee & Talebi, 2023). It refers to leading one's thoughts, leading other individuals, and leading a balanced life (Speranza & Pierce, 2019). This situation shows that management philosophy in the leadership context is critical to manifest the improvement trend in leadership practices continuously, improve the ability and efficiency of individuals in an organisation, improve organisational success, support new problem-solving approaches, freedom to make decisions and increase organisational competitiveness (Speranza & Pierce, 2019).

Comprehensive leadership practices increase self-awareness, lived moral perspective, balanced life processing, and relational transparency (Walumbwa, Avolio, Gardner, Wensing, & Peterson, 2008). For example, careful observation reveals that the success of 500 US companies results from the willingness of their CEOs' leadership to invest sufficient budget, time, and energy in designing and implementing training programmes to develop and empower talented employees. As a result, these employees' abilities can help companies achieve, maintain, and improve their competitive advantage in the global market of the 21st century (Mohamad et al., 2020; Nino, 2023). Furthermore, 83% realised that leadership development in training programmes at every level of the organisation is critical and can improve the efficiency of employee task performance (Forbes, 2023). This situation shows that effective leadership will increase employee motivation and self-efficacy, create creative ideas, foster employee involvement in tasks and provide positive added value.

A detailed review of leadership literature in training programmes reveals those various elements of training design influence formal and non-workplace training success. These elements, carefully planned and implemented, include aspects such as training content design, training facilities and training delivery methods (Mohamad et al., 2020). Additionally, the characteristics of trainers, encompassing their ability to deliver training and their knowledge of effective learning principles and concepts, play a significant role (Royakkers, Biyani & Van Cleynenbreugel, 2022; El Hajjar & Alkhanaizi, 2018; Krampitz et al., 2023). These elements have been widely accepted and are commonly practised by most organisations at home and abroad. Although these elements are essential and vital in making a leadership-based training programme successful, there is limited discussion on exploring these elements to ensure the sustainability of the training programme can be improved (Lacerenza et al., 2017; Krampitz et al., 2023).

Many conceptual and empirically based literature studies on the philosophical transformational leadership in training programmes concur that merely identifying crucial elements in a training programme is insufficient for organisational success. Transformational leadership in the training programme must be effectively practised within the organisation. This practice is deemed essential to assist employers and top leadership achieve objectives in an increasingly competitive organisational

environment (Bakker et al., 2022; Mohamad et al., 2023). In a philosophical context, transformational leadership in training programmes is often associated with a leader's motivation to pursue organisational group goals through various means. These include ideal influence, involving followers' excitement towards a leader serving as a role model, inspirational motivation, where the leader provides high motivation and inspiration to achieve goals, intellectual stimulation, where the leader inspires followers intellectually, and/or individual consideration involving leader support, guidance, positive interactions, and assistance to followers to maximise their potential (Bass, 1985; Bakker et al., 2022). Similarly, the competencies acquired and mastered by leaders can be used to change employees' negative attitudes and behaviours by motivating them in the task environment.

Interestingly, a study carried out in the philosophical leadership context reveals that the nature of the relationship between transformational leadership in training programmes is influenced by self-efficacy motivation and proactive behaviour (Yafi, Tehseen & Haider, 2021; Abid et al., 2020; Chaudhary, 2019). Self-efficacy is frequently associated with an individual's belief and confidence in their ability to perform proactive behaviour (Bandura, 1977; 1986). Meanwhile, proactive behaviour is associated with best practices for cultivating a positive environment.

However, the size of the mediating effect of self-efficacy motivation has not been thoroughly discussed (Lacerenza et al., 2017). There are several factors identified based on the transformational leadership literature review. First, most previous studies have concentrated on the external nature of self-efficacy motivation, which is the definition, benefits, purpose, and challenges of this variable in various organisational designs. Second, most previous studies have developed hypotheses and research models based on literature and theoretical studies to measure self-efficacy motivation; for example, the relationships between a) self-efficacy motivation and proactive behaviour, b) transformational leadership and self-efficacy motivation, and c) transformational leadership and proactive behaviour. These relationships were often tested using simple statistical methods (mean, median, standard deviation, bivariate, and regression). The measurement results could only report the correlation between the study constructs' nature and degree of robustness. As a result, the statistical measurement method could not explain the effect size ratio and self-efficacy as a crucial mediating variable in the relationship between transformational leadership and proactive behaviour. Third, most previous studies were based on an objectivist thinking approach, emphasising the role of non-human factors, such as policies, standards, and work procedures, and their impact on organisational potential and efficiency (Bakker et al., 2022). Although this philosophy of thought has made such a significant contribution, it was not sufficient to explain the importance of the role of self-efficacy that needs to be present in employees (Yafi, Tehseen & Haider, 2021; Abid et al., 2020; Chaudhary, 2019).

The findings of this test were only able to evaluate the strength and characteristics of the variable thoroughly. They could not detect the size of the mediating effect in a complex study model. As a result, the outcomes of this statistical approach produced simple, general, and predictable findings. This situation could not offer sufficient guidelines to help employers and practitioners understand the paradigm of the multidimensional nature of the self-efficacy motivation construct in maintaining and improving organisational sustainability in the future.

This study makes four significant contributions. First, this study proves the importance of transformational leadership literature in training programmes, introducing the variable as a significant predictor in increasing self-efficacy motivation and proactive behaviour. This study expands the literature on employee attitudes and behaviour by detecting self-efficacy motivation as a strong determinant compared to personal variables in increasing the effect of proactive behaviour. Third, this study tries to prove that self-efficacy motivation can mediate the relationship between transformational leadership and proactive behaviour (Yafi, Tehseen & Haider, 2021; Abid et al., 2020; Aboramadan, 2022). Thus, this study investigates the relationship between transformational leadership in training programmes, self-efficacy motivation, and proactive behaviour.

2. Literature Review

In the philosophical context, transformational leadership in training programmes refers to the capabilities extended by the leaders to employees in providing professional assistance to help them enhance their ability to manage and perform diverse organisational tasks (Khan et al., 2020; Cohrs et al., 2020). In successful organisations, leaders often provide management support through internal and external factors, such as motivation, empathy, care, and encouragement. It aims to foster the development of new ideas, build trust among organisational members, and strengthen the relationship between subordinates and employers (Khan et al., 2020; Cohrs et al., 2020; Bakker et al., 2022). Meanwhile, leaders typically provide professional leadership assistance through ideal influence (practising behaviours that inspire and emulate subordinates), inspirational motivation (instilling inspiration among workers through actions and words), intellectual stimulation (exploring new ideas and approaches and facing any situation in new ways), and individual consideration (respecting individual differences) (Khan et al., 2020; Cohrs et al., 2020; Bakker et al., 2022). These skills are interconnected and contribute to effective leadership in fulfilling organisational roles and understanding task performance in the workplace. Therefore, recent studies on transformational leadership in training programmes emphasise that management support and professional guidance are equally essential and complement each other in achieving positive outcomes, particularly in the context of self-efficacy motivation and proactive behaviour (Krampitz et al., 2023; Mohamad et al., 2023; Yafi, Tehseen & Haider, 2021).

Self-efficacy motivation is often associated with an individual's belief in their capacity and high motivation to achieve their goals. Those with high self-efficacy usually exhibit strong motivation in managing and performing tasks (Tai, 2006; Xinyuan Zhao & Karthik Namasivayam, 2009). On the other hand, those with low self-efficacy motivation often display weak motivation in managing and executing organisational tasks. It is a behavioural response of individuals that stems from their overall formulation or expectation of their ability to perform a task (Gist & Mitchell, 1992; Bandura, 1977). This existing belief will lead individuals to act more effectively and appropriately, thereby helping to enhance employee performance in their tasks. For example, previous research on transformational leadership in training programmes has shown that employees with solid self-efficacy motivation tend to have clear goals, allocate more significant effort, work diligently, persevere in the face of task challenges, strive to complete difficult tasks, seek to acquire new competencies, and are willing to take on significant responsibilities within the organisation (Yafi, Tehseen & Haider, 2021; Karatepe, Hsieh & Aboramadan, 2022). On the other hand, employees with weak self-efficacy motivation lack clear goals and are less inclined to take proactive actions to become successful workers (Herzberg, Mausner & Snyderman, 1959). Furthermore, studies on leadership in training programmes highlight that self-efficacy motivation is an essential outcome within the nature and relationship between transformational leadership and proactive behaviour and can act as an effective mediating variable in that relationship.

Proactive behaviour involves practising good attitudes, adapting to tasks, understanding organisational objectives and tasks, collaborating with others, accepting new ideas, showing respect towards colleagues, and being responsible. In organisations, training programmes are typically designed to equip employees with proactive attitudes and the skills and knowledge to carry out tasks effectively (Ellinger, Ellinger & Keller, 2003; Karatepe, Hsieh & Aboramadan, 2022). These training programmes aim to enhance overall knowledge in their respective fields of work, provide meaningful experiences, increase employee awareness and motivation, and ensure their relevance to the workplace and labour market. This approach is precious in promoting effective behaviour to achieve organisational goals (Ellinger, Ellinger & Keller, 2003; Karatepe, Hsieh & Aboramadan, 2022). Furthermore, recent studies on guidance in training programmes demonstrate that proactive behaviour is an essential outcome deserving appropriate attention in such guidance (Yafi, Tehseen & Haider, 2021; Karatepe, Hsieh & Aboramadan, 2022) and serving as a crucial factor in fostering proactive behaviour in the workplace.

2.1. Transformational Leadership and Proactive Behaviour

The relationship between transformational leadership and proactive behaviour is consistent with the Leader-Member Exchange Theory by Graen and Uhl-Bien (1995). This theory suggests that a leader will develop an exchange relationship over time with each subordinate (Dienesch & Liden, 1986; Graen & Uhl-Bien, 1995). The Social Exchange Theory explains how exchange relationships develop gradually as a leader interacts with each subordinate. In a high-exchange relationship, there is high trust and respect. Leaders provide desired outcomes for subordinates (e.g., interesting tasks, additional responsibilities, more rewards), and in return, subordinates are expected to be committed to the work and loyal to the leader. On the other hand, in low-quality exchange relationships, subordinates are only expected to perform the formal requirements of their jobs, and the leader does not provide additional benefits. Applying this theory in organisations is often referred to as transformational leadership present within individuals.

Empirical studies have found a positive correlation between the quality of transformational leadership and some indicators of leadership effectiveness on proactive behaviour. Among them are the perceptions of 305 samples of different public and private universities located in Malaysia (Yafi, Tehseen & Haider, 2021), 221 samples from employees working in both public and diverse private industries (Abid et al., 2020), 91 employees working at various hierarchical levels in the organisations at Indian automobile industry (Chaudhary, 2019), 37 managers rated by 538 subordinates in northern Sweden (Tafvelin, von Thiele Schwarz & Stenling, 2019) and 475 officers of the Ministry of Law and Human Rights (Adhyke et al., 2023). These studies have confirmed that leadership based on transformation practised within an organisation, such as leaders' ability to demonstrate a high level of concern, inspire, solve problems, offer professional guidance, and actively support their employees, can enhance proactive behaviour within the respective organisations. Even though most of these studies were more focused on external dimensions only, such as management guidance, which is measured based on leaders' expectations (Yafi, Tehseen & Haider, 2021), this element is not sufficient to measure the strength of transformational leadership in the organisation studied.

Leadership is more effective when consistently practised within the organisation by providing specific feedback, introducing new ideas, developing effective networks, open assistance, motivation, and spirit, enhancing employees' social skills, providing guidelines, and explaining through good examples. The leaders' willingness to swiftly undertake these responsibilities has led to a rise in proactive behaviour (Yafi, Tehseen & Haider, 2021; Abid et al., 2020; Chaudhary, 2019). Therefore, based on the theory supporting exchange relationships develop gradually and empirical study findings, the following hypotheses are formulated:

H1: Transformational leadership is positively associated with proactive behaviour.

H2: Transformational leadership is positively associated with self-efficacy motivation.

2.2. Self-Efficacy Motivation and Proactive Behaviour

The influence of macro theories based on motivation, development, personality, and well-being in the workplace is often associated with the Theory of Self-Determination (Deci, Olafsen & Ryan, 2017). This theory emphasises a high focus on enhancing individuals' spirit, motivation, and positive willingness to achieve well-being. In managing and executing tasks, individuals with a positive spirit can enhance proactive behaviour, such as efficiency, performance, perseverance, and creativity. Applying this theory in organisations is often referred to as self-efficacy motivation present within individuals. Literature studies on self-efficacy motivation strongly support the role of this variable as a critical determinant in enhancing proactive behaviour within organisations. Many previous studies have used different sample sizes to evaluate the effect of self-efficacy motivation and proactive behaviour, such as the perceptions of 305 samples of different public and private universities located in Malaysia (Yafi, Tehseen & Haider, 2021), 221 samples from employees working in both public and diverse private industries (Abid et al., 2020), 215 staff working in Palestinian higher education institutions

(Aboramadan, 2022), and 370 survey questionnaires from employees at different divisions/departments in the Malaysian public sector (Mohamad et al., 2023). These studies have reported that high self-efficacy motivation (such as individuals' belief in their capacity to achieve task goals, high aspirations, and positive self-motivation) can influence employees' proactive behaviour within the organisation. Overall, the study on self-efficacy motivation and the effect on proactive behaviour is still less discussed. The research results based on previous studies found that most studies only focused on the impact on work performance. Therefore, based on the theory of enhancing individuals' spirit, motivation, and positive willingness to achieve well-being and empirical study findings, the following hypothesis is formulated:

H3: Self-efficacy motivation is positively associated with proactive behaviour.

2.3.   Transformational Leadership, Self-Efficacy Motivation, and Proactive Behaviour

The mediating effect of self-efficacy motivation in the relationship between transformational leadership and proactive behaviour is consistent with the essence of the Social Cognitive Theory by Bandura (1986). The main idea of this theory discusses individual behaviour that is influenced by learning produced through research on other individuals or individuals who are considered models. This social learning involves the relationship of the influence of three elements: environment (other individuals, peers, and closest leaders), cognitive (language, imagination, and logic), and behaviour (cheerful, angry, patient, and other behaviours). Usually, this learning process involves four main processes. First is observing a particular behaviour or work movement you want to emulate. Second is retention, which is recalling an observed behaviour and the results of the observation being stored in memory. Third is reproduction, which is doing it again based on something observed before. This behaviour can also be used as practice and implementation in the future. Fourth is reinforcement and motivation, the reward to strengthen the new behaviour practised (Bandura, 1986). Applying this theory in organisations is often referred to as self-efficacy motivation present within individuals.

Some further studies have applied an indirect effect model to assess the influence of self-efficacy motivation using different sample sizes. These include studies based on the perceptions of 305 samples of different public and private universities located in Malaysia (Yafi, Tehseen & Haider, 2021), 221 samples from employees working in both public and diverse private industries (Abid et al., 2020), 215 employees of different SMEs in Pakistan (Khan et al., 2022), 215 staff working in Palestinian higher education institutions (Aboramadan, 2022), and 370 survey questionnaires from employees at different divisions/departments in the Malaysian public sector (Mohamad et al., 2023). These surveys discovered that the ability of leaders to implement supportive management and professional guidance in formal and informal training activities integrates the individual within the organisation's social systems, strategies, and goals, which strongly stimulates self-efficacy motivation. Consequently, this sense of empowerment was found to lead to improved proactive behaviour within the organisations studied (Mohamad et al., 2023; Yafi, Tehseen & Haider, 2021; Abid et al., 2020; Aboramadan, 2022). Most previous studies directly discussed the relationship between self-efficacy motivation and proactive behaviour. However, there is still a lack of research proving the role of self-efficacy motivation as a mediating variable, especially in transformational leadership. Consequently, drawing upon the principles of Social Learning Theory and insights from empirical research, the hypothesis is formulated as follows:

H4: Self-efficacy motivation acts as a mediating variable between transformational leadership and proactive behaviour.

2.4.   Research Model and Hypothesis

Theoretical and empirical evidence has been used to formulate a study model, as exhibited in Figure 1.
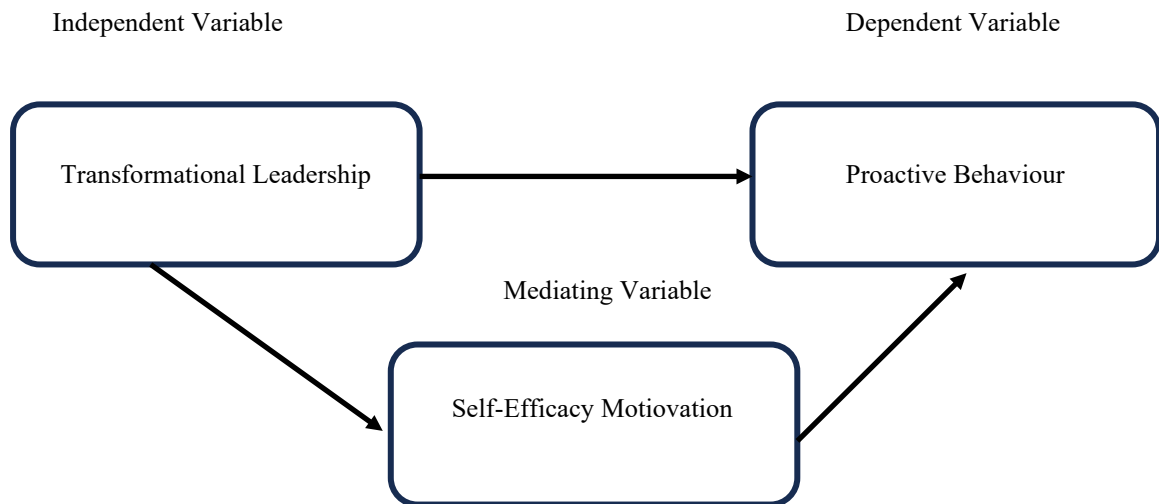
Independent Variable

Dependent Variable

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┌────────────────────────────┐                    ┌────────────────────────────┐
│                            │                    │                            │
│ Transformational Leadership│ ─────────────────▶ │    Proactive Behaviour     │
│                            │                    │                            │
└────────────────────────────┘                    └────────────────────────────┘
                    Mediating Variable
              ┌────────────────────────────┐
              │                            │
              │  Self-Efficacy Motiovation │
              │                            │
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Fig. 1: Research Model

3. Methodology

3.1. Context of the Study

This study evaluates the practice of transformational leadership implemented in public sector organisations in Malaysia. It is a people-oriented leadership style that enhances knowledge-based productivity (delivering transparent services and acting promptly). Leaders actively lead employees to enhance their expertise, develop knowledge, and exhibit proactive behaviour while working in organisations. The new findings suggest that leaders who can boost their self-confidence by guiding subordinates through discussions, human relations, social skills, leadership skills, communication skills, and goal-setting can encourage employees to improve their self-efficacy motivation through motivation, skills, knowledge, and attitude. Most employees perceive that their level of self-efficacy motivation can generate the motivation to carry out their daily tasks and responsibilities earnestly. This motivation can be translated through commitment, responsibility, motivation, and effort. Although this relational aspect is imperative, the role of self-efficacy motivation as a mediating variable has not been thoroughly studied in the public sector organisations in Malaysia. Therefore, the circumstances mentioned above motivate researchers to address the gap in the literature by examining the role of self-efficacy motivation as a mediating variable between transformational leadership and proactive behaviour. This study has three objectives: to examine the relationship between transformational leadership and proactive behaviour, to examine the relationship between transformational leadership and self-efficacy motivation, and to examine the relationship between transformational leadership, self-efficacy motivation, and proactive behaviour.

3.2. Research Design

A survey method was employed as the research strategy, enabling the researchers to utilise a cross-sectional research design for collecting survey questionnaires in this study. This approach proves beneficial in gathering relevant data, reducing bias, and improving data quality (Bougie & Sekaran, 2019). The study was conducted at five government organisations in Malaysia. The actual names of the government organisations were kept anonymous to ensure confidentiality. In the initial data collection stage, the survey questionnaire items were adapted from the existing literature on philosophical leadership. A back-to-back translation technique was utilised to translate the questionnaires into English and Malay languages, enhancing the quality of the study instrument (Lomand, 2016).

3.3. Reflective Measurement Model Assessment Procedure

Evaluating the reflective measurement model involves examining the reliability of measures at both the indicator level (indicator reliability) and the construct level (internal consistency reliability). Validity assessment centres on the convergent validity of each measure, utilising the average variance extracted (AVE) (Hair et al., 2017). Additionally, the heterotrait–monotrait (HTMT) ratio of correlations enables the evaluation of discriminant validity for a reflectively measured construct compared to other construct measures within the same model (Hair et al., 2017). Figure 2 illustrates the reflective measurement model evaluation process.
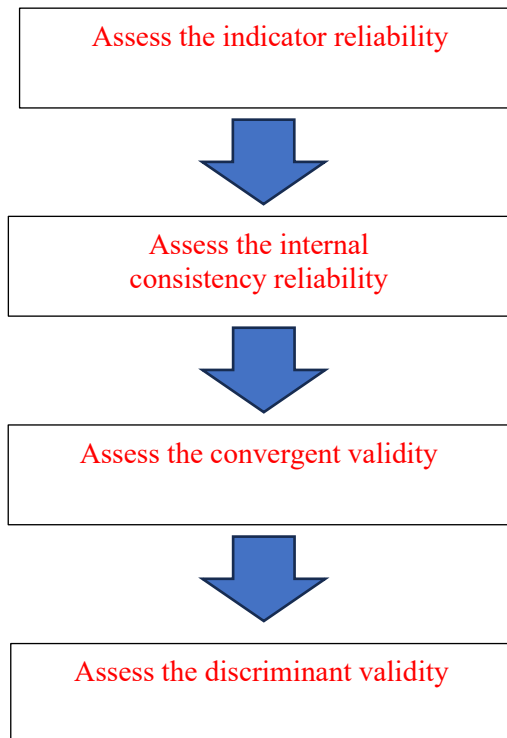
Assess the indicator reliability

Assess the internal
consistency reliability

Assess the convergent validity

Assess the discriminant validity

Fig.2: Reflective measurement model evaluation process

3.4. Instrument

A seven-item scale of transformational leadership was adapted from Chiaburu and Tekleab (2005), Burke and Baldwin (1999), and Dermol and Cater (2013) to measure transformational leadership. Transformational leadership is defined as an "approach that causes change in individuals and social systems, it's creating valuable and positive change in the followers with the end goal of developing followers into leaders". A sample element includes discussion, human relations, social skills, leadership skills, communication skills, and setting goals. All the items meet the instrument's composite reliability criteria (CR) of 0.86.

The five items of self-efficacy motivation were adapted from Parker (1998) and Podsakoff, Ahearne and MacKenzie (1997). Self-efficacy motivation is "belief in their own capacity to achieve and motivation is based on the individual's desire to achieve'. A sample dimension includes "committed, responsibility, motivation and effort. All the items meet the instrument's composite reliability criteria (CR) of 0.86.

The six items of proactive behaviour were adapted from William and Anderson (1991). Proactive

behaviour is defined as "being proactive, motivating". A sample dimension includes "motivation, skill, knowledge and attitude. All the items meet the instrument's composite reliability criteria (CR) of 0.86.

All 18 items were responded using a seven-point Likert scale ranging from "strongly disagree/dissatisfied" (1) to "strongly agree/satisfied" (7). Additionally, before collecting the primary data, the questionnaire underwent a pretest phase to identify any questions that might be awkward, confusing, or offensive (Memon et al., 2017). Demographic variables are used only as controlling variables as this study emphasises student attitudes.

3.5. Sampling and Data Collection

The study included all employees from different units of the organisation. Six hundred forty survey questionnaires were distributed among the employees using a random stratified sampling to gather data. Of the distributed questionnaires, 439 (68.59%) usable questionnaires were collected successfully.

Data analysis was conducted using SmartPLS, following the guidelines outlined by Hair et al. (2017). The data screening involved removing missing values, straight-lining answers, extreme values, and non-normally distributed data (where Skewness and Kurtosis values were below +/-2.0) from the questionnaire data. Additionally, the adequacy of the study sample was evaluated based on the rule of thumb, suggesting that the number of formative indicators in the survey questionnaire should be at least ten times the sample size. The items for measurement models should have outer loadings higher than the standard threshold of 0.70 (Hair et al., 2017). In this study, the transformational leadership constructs had seven items for formative indicators. The rule indicates a minimum sample size of 70 respondents, indicating that the sample size in this study was sufficient.

3.6. Common Method Bias

Further analysis involved examining response bias using Harman's single-factor test (Saxena, Bagga & Gupta, 2022). The test results showed that the variance percentage for all items was 41.743, which is less than 50% of the variance, suggesting that response bias did not significantly impact the survey data. The measurement model of latent constructs was assessed using confirmatory factor analysis (CFA), and the hypotheses for direct effects and mediating models were tested using structural equation modelling (SEM). Finally, various aspects, such as the overall predictive strength of the model, mediating effect size, effect size of the predicting variable, model fit, predictive relevance, predictive performance of the research model, and important-performance map analysis (IPMA), were evaluated.

4. Data Analysis and Results

4.1. Respondents' Profile

The majority of respondents are aged 34 to 39 years old (36.7%), Islam (94.5%), female (71.29%), and have bachelor's degree education (33.02%).

Table 1: Respondent Profile

Profile	Sub-Profile	Frequency	Per cent
Age	Less than 27 years	52	11.8
	28 to 33 years old	106	24.1
	34 to 39 years old	161	36.7
	40 to 45 years	74	16.9
	Over 46 years	46	10.5
Religion	Islam	415	94.5

	Christian	9	2.1
	Buddha	10	2.3
	Hindu	4	.9
	Others	1	.2
Sex	Male	126	28.7
	Female	313	71.29
Education	Lower Secondary Evaluation	2	.5
	Malaysian Certificate of Education	97	22.1
	The Malaysian Higher School Certificate	131	29.8
	Degree	145	33.02
	Masters	55	12.5
	Doctor of Philosophy	9	2.1

4.2. Assessment for Measurement Model

Convergent validity refers to the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2017). It can be assessed by examining the indicator reliability of the indicators and their AVE (Hair et al., 2017). A high indicator reliability indicates that the indicator is highly representative of the construct. Table 2 reveals that all the study constructs have outer loadings greater than 0.708 (Henseler, Ringle & Sinkovics, 2009) and AVE values exceeding 0.5 (Hair et al., 2017), indicating that the results meet the criteria for convergent validity. Additionally, all the study constructs exhibit composite reliability values above 0.8 (Hair et al., 2017), indicating a high level of internal consistency.

Table 2: Convergent validity analysis

Constructs	Indicator Reliability	Composite Reliability	Average Variance Extracted (AVE)	Cronbach's Alpha
Transformational Leadership		0.944	0.709	0.931
A1:	0.752			
A2:	0.852			
A3:	0.871			
A4:	0.857			
A5:	0.848			
A6:	0.867			
A7:	0.839			
Self-Efficacy Motivation		0.930	0.726	0.905
B1:	0.876			
B2:	0.864			

B3:	0.848			
B4:	0.862			
B5:	0.809			
Proactive Behaviour		0.937	0.711	0.919
C1:	0.840			
C2:	0.872			
C3:	0.812			
C4:	0.852			
C5:	0.872			
C6:	0.810			

Discriminant validity refers to the extent to which a construct is truly distinct from other constructs by empirical standards (Hair et al., 2014). In the present study, the dependent variable (proactive behaviour) was assessed using the HTMT criterion, which is often considered the most conservative method compared to other methods (Henseler et al., 2015). The HTMT criterion calculates the ratio between-trait and within-trait correlations (Hair et al., 2017). The HTMT value should not exceed 0.85 to establish a dependent variable. Table 3 shows that all the study constructs have been assessed using the HTMT ratio of correlations. This analysis indicates that all study constructs have values below 0.85 (Hair et al., 2017), suggesting that they have successfully met the criterion for discriminant validity.

Table 3: Results of discriminant validity and HTMT confidence interval values

Constructs	Transformational Leadership	Self-Efficacy Motivation
1. Transformational Leadership		
2. Self-Efficacy Motivation	0.646 (0.528, 0.658)	
3. Proactive Behaviour	0.636 (0.190, 0.350)	0.762 (0.447, 0.610)

Table 4 presents the results of the cross-loading analysis. The findings suggest that all indicator values for each construct are higher than those for other constructs. It indicates that the items in the study have met the required level of discriminant validity.

Table 4: Cross-loading

ITEMS	Transformational Leadership	Self-Efficacy Motivation	Proactive Behaviour
A1	0.752	0.456	0.451
A2	0.852	0.485	0.493
A4	0.871	0.449	0.455
A5	0.857	0.537	0.525
A7	0.848	0.498	0.496
A8	0.867	0.535	0.535
A9	0.839	0.540	0.511

ITEMS	Transformational Leadership	Self-Efficacy Motivation	Proactive Behaviour
G10	0.537	0.876	0.629
G5	0.497	0.864	0.568
G7	0.518	0.848	0.590
G9	0.476	0.862	0.567
H1	0.508	0.809	0.608
L1	0.463	0.578	0.840
L2	0.530	0.578	0.872
L3	0.506	0.571	0.812
M1	0.516	0.589	0.852
M2	0.523	0.636	0.872
M3	0.446	0.571	0.810

Table 5 presents the means for the study constructs, ranging from 5.920 to 6.049. These values suggest that participants' perceptions of transformational leadership, self-efficacy motivation, and behaviour range from a high level (4) to the highest level (7). Furthermore, the variance inflation factor (VIF) values for the associations between the study constructs are all below 5.0. It indicates that collinearity issues do not significantly influence the data (Hair et al., 2017).

Table 5. Results of VIF and descriptive constructs analysis

Construct	VIF Values		Mean	Std. Deviation
	Self-Efficacy Motivation	Behaviour		
1. Transformational Leadership	1.000	1.552	5.920	.6447
2. Self-Efficacy Motivation		1.552	6.045	.5680
3. Proactive Behaviour			6.049	.5675

4.3. Structural Model

The structural model assessment involves testing the causal relationships between the constructs. Several criteria were used to evaluate the structural model, including path coefficients, coefficient of determinations (R^2), effect size (f^2), and predictive relevance (Q^2) (Chin, 1998; Hair et al., 2017). R^2 represents the overall predictive accuracy of the model (Hair et al., 2017). According to Cohen (1988), R^2 values of 0.26, 0.13, and 0.02 are considered large, medium, and small, respectively. Table 6 reports the structural model results—a large R^2 (0.354) for self-efficacy motivation and proactive behaviour (0.531). Next, f^2 measures the change in R^2 when a specified exogenous construct is omitted from the model, indicating whether the omitted construct has a substantive impact on the endogenous variable (Hair et al., 2017). Cohen (1988) suggested that f^2 values of 0.02, 0.15, and 0.35 indicate small, medium, and large effect sizes, respectively. The f^2 results indicate that transformational leadership (0.552) significantly affects self-efficacy motivation. Next, transformational leadership (0.102) has a medium effect on proactive behaviour. Furthermore, self-efficacy motivation (0.394) significantly affects proactive behaviour. Blindfolding was conducted to generate Q^2 values. Blindfolding is a sample reuse technique that involves omitting every dth data point in the indicators of the endogenous constructs (Hair et al., 2017). A Q^2 value above 0 indicates the predictive relevance for the dependent constructs of a model (Fornell & Larcker, 1981). The Q^2 values for self-efficacy motivation (0.225) and proactive

behaviour (0.376) demonstrate acceptable predictive relevance.

Table 6: R^2 and Q^2 of endogenous constructs

Constructs	R^2	Predictive Accuracy	Q^2
Transformational Leadership			
Self-Efficacy Motivation	0.354	Large	0.225
Proactive Behaviour	0.531	Large	0.376

The bootstrapping technique (5,000 subsamples, one-tailed significance) was employed to estimate the statistical significance of the parameter. As presented in Table 7, the results first report that transformational leadership is positively and significantly associated with proactive behaviour (H1, β=0.596; t=18.215). Second, transformational leadership is positive and significant with self-efficacy motivation (H2, β=0.660; t=23.35). Third, self-efficacy motivation is positive and significant with proactive behaviour (H3, β=0.535; t=12.283). Therefore, H1, H2, and H3 are supported. Furthermore, the model fit test shows that the standardised root mean square residual (SRMR) value is 0.048, below the threshold of 0.1. The results demonstrate that this model is a good fit.

Table 7: The results of direct hypothesis testing

Hypothesis	Beta	t-value
H1: Transformational Leadership $\longrightarrow$ Positive Behaviour	0.596	18.215
H2: Transformational Leadership $\longrightarrow$ Self-Efficacy Motivation	0.660	23.35
H3: Self-Efficacy Motivation $\longrightarrow$ Proactive Behaviour	0.535	12.283

Table 8 indicates the results of indirect hypothesis testing. The results show that transformational leadership and self-efficacy motivation positively and significantly correlate with proactive behaviour (H4, β=0.319; t=9.790). Therefore, H4 is supported. The mediating effect of self-efficacy motivation is partially mediated, indicating that both the direct and indirect effects models are significant and align in the same direction (Zhao, Lynch & Chen, 2010). Furthermore, the model fit test shows that the SRMR value is 0.048, below the threshold of 0.1. The results demonstrate that this model is a good fit.

Table 8: The results of indirect hypothesis testing

Hypothesis	Direct Relationship		Indirect Relationship	
	Beta	t-value	Beta	t-value
H4:Transformational Leadership $\longrightarrow$ Self-Efficacy Motivation $\longrightarrow$ Proactive Behaviour	0.596	18.215	0.319	9.790

The findings of the IPMA are presented in Table 9. The IPMA test shows that self-efficacy motivation achieves the highest performance, with a score of 84.103 and a total effect of 0.533. Conversely, transformational leadership demonstrates the lowest performance, scoring 82.003 and a

total effect of 0.518. These results suggest that practitioners should focus more on enhancing transformational leadership to promote self-efficacy motivation and proactive behaviour.

Table 9: IPMA Analysis

Construct	Proactive Behaviour	
	Importance (Total Effect)	Performance (Total Index)
1. Transformational Leadership	0.518	82.003
2. Self-Efficacy Motivation	0.533	84.103

5. Discussion

This study demonstrates that self-efficacy motivation is a significant mediating variable in the relationship between transformational leadership and proactive behaviour. Most respondents perceived high transformational leadership and behaviour levels in the study context. It suggests that leaders' ability to engage in discussions, foster human relations effectively, exhibit social skills, demonstrate leadership skills, communicate effectively, and set goals will greatly enhance self-efficacy motivation within their organisation. As a result, this motivation may contribute to increased behavioural outcomes within the organisational context studied. This finding aligns with previous studies highlighting that the leaders' ability to practice transformational leadership (such as management support and professional guidance) can increase self-efficacy motivation. As a result, this result of empowerment was found to lead to an increase in proactive behaviour in the organisation studied (Mohamad et al., 2023; Yafi, Tehseen & Haider, 2021; Abid et al., 2020; Aboramadan, 2022).

The study's findings have provided three major implications: theoretical contribution, the robustness of the research methodology, and practical contribution. In terms of theoretical contribution, these findings report that the leaders' willingness to practice transformational leadership in the organisation (providing specific feedback, introducing new ideas, developing effective networks, supportive management and giving professional guidance) can increase self-efficacy motivation (high aspirations and positive self-motivation). Next, this situation can also increase proactive behaviour in their organisation. These findings are consistent with the Social Cognitive Theory by Bandura (1986) and supported by empirical studies (Yafi, Tehseen & Haider, 2021; Abid et al., 2020; Khan et al., 2022; Aboramadan, 2022; Mohamad et al., 2023). Regarding the robustness of the research methodology, the measurement scale utilised in this study has successfully met the criteria for validity and reliability analyses.

Regarding practical contributions, IPMA findings indicate that transformational leadership is essential in increasing self-efficacy motivation. Management should prioritise the following aspects to influence employee self-efficacy motivation. First, leaders with guidance skills engage in collaborative efforts with their employees to foster self-efficacy motivation and form a stronger sense of commitment in carrying out tasks. Second, adaptability allows leaders to accept new challenges and solve problems as they arise. When coaching employees, leaders can demonstrate flexible thinking by remaining adaptable to change. Employees may be inspired to take a similar approach if they observe leaders managing change effectively. According to Bandura, individuals will learn and observe the observed person's behaviour as modelling to increase self-efficacy motivation. Third, training programmes should be made available to help leaders improve employee performance and promote their psychosocial and career development. Leaders, for example, should be educated on the significance, objectives, types, and benefits of emotional and instrumental support. Therefore, various techniques for employees (such as observational and experiential learning, blended learning, and active learning through both face-to-face and online modes) should be used to effectively inspire, facilitate, guide, and

exemplify social concepts. This integration will help employees increase self-efficacy motivation (such as optimism and confidence in their abilities). Fourth, leaders need to use discussion strategies in various situations. This situation can create the mission and vision of an organisation and can increase self-efficacy motivation to be achieved.

6. Conclusion

This study makes essential empirical and practical contributions by revealing the mediating influence of self-efficacy motivation. It enriches scholarly understanding of the social cognitive mechanisms driving transformational leadership's positive organisational impact. Additionally, the specific guidance around improving leaders' motivation-enhancing practices and competencies can inform evidence-based management initiatives towards nurturing employee self-belief and proactivity.

7. Limitations and Future Recommendations

This study acknowledges certain methodological and conceptual limitations. Firstly, a cross-sectional research design provides a snapshot of participants' general perceptions regarding the correlation between latent constructs rather than capturing dynamic changes over time. Secondly, this study focuses solely on examining the association between the independent and dependent latent constructs, potentially overlooking other relevant variables. Thirdly, the study's scope is limited to the public organisation sector, potentially limiting the applicability of the findings to other sectors. Lastly, using random stratified sampling may not capture a sufficiently diverse range of data to represent the study population fully. These limitations may restrict the generalisability of the study outcomes to diverse types of organisations.

This study proposes several recommendations to enhance future research. Firstly, it is recommended to explore important participant characteristics, such as gender, age, education, and marital status, to gain insights into their perceptions of the study model and understand any similarities or differences. Secondly, further exploration of diverse types of public organisations can provide meaningful perspectives on how participants' similarities and differences influence transformational leadership. Thirdly, employing a longitudinal study design in future research can help identify patterns of change and the direction and extent of causal relationships among the study constructs over time. Fourthly, comparing different types of public organisations can reveal the effect sizes of the study constructs. Fifthly, future research should consider other specific elements of transformational leadership, such as communication, participation, and rewards, as they are widely recognised as significant predictors of outcomes. Sixthly, using a larger sample size would improve the representativeness of the study population. Lastly, other outcome components, such as job performance, maintenance, generalisation, and organisational commitment, should also be considered, as they are often emphasised in various workplace literature relating to work motivation and behaviour. These suggestions aim to advance future studies in the field.

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