"LMX and Innovative Work Behaviour: A Conceptual Paper on Psychological Empowerment as Mediator"

Khairunnisa binti Rahman[1], Eta binti Wahab[2]

[1]Senior Lecturer, Faculty of Business Management, UiTM Johor, Malaysia

[2]Associate Professor, Faculty of Technology Management, Business and Entrepreneurship, UTHM, Parit Raja, Batu Pahat, Johor, Malaysia.

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ABSTRACT

In an increasingly challenging and dynamic educational context, teachers play an important role in producing innovations to improve the effectiveness of teaching and learning. This conceptual study proposes to examine the relationship between leader-member exchange and innovative work behavior with the mediation of psychological empowerment among teachers.

This conceptual study suggests that future empirical studies should be conducted to test the proposed model using the partial least squares structural equation modeling (PLS-SEM) analysis method. In addition, some control variables, such as age, teaching experience, and type of school (eg, public or private school), are also recommended to be included in the study to control for the influence of external factors that may affect the relationship between the main variables. Considering these aspects, this study has the potential to contribute significantly to the understanding of how leadership and psychological factors can drive innovation among educators.

Keywords: Leader Member Exchange (LMX), Psychological Empowerment, Innovative Work Behavior (IWB), teacher, control variable, PLS

INTRODUCTION

In an era of ever-changing and challenging education, teachers play an important role in ensuring the effectiveness of the teaching and learning process. They are not only responsible for imparting knowledge, but also need to be innovative as a change agents to address various challenges, such as diverse student needs, developments in educational technology, and increasing work pressure. Innovative work behavior among teachers is an important aspect that allows them to adapt teaching approaches and intervention strategies to current conditions and changing student needs. However, teachers' ability to innovate does not only depend on individual skills and motivation, but is also influenced by organizational factors, especially the relationship between teachers and school leadership.

Leader-Member Exchange (LMX) is a theory that emphasizes the quality of relationships between leaders and organizational members, which has major implications for the motivation, commitment, and work behavior of these members. Positive and high-quality LMX relationships can support teachers in being more courageous in trying new approaches and implementing innovations in their daily tasks. In the context of schools, good relationships between teachers and administration play an important role in creating a conducive work environment for increased innovation and teaching effectiveness.

Problem Statement

Although the importance of innovative work behavior among teachers is receiving increasing attention, the implementation of such innovation is often hindered by organizational factors, especially the quality of relationships between teachers and school leaders. The increasingly complex educational challenges and high teacher workload require teachers to be innovative in their approaches. Izzati (2018) reported that Malaysian school teachers are stuck in their comfort zone, preferring to use only conventional and familiar learning strategies and falling back on blanket solutions. Thus, the heterogeneity of students is not acknowledged, whereby different methods and approaches are much more suited. The diversity of students is unrecognized, necessitating the use of many methods and approaches that are more appropriate. However, not all teachers are able or have the opportunity to consistently demonstrate innovative behavior. Prior studies have empirically validated the predictive correlation between Leader-Member Exchange (LMX) and innovative work behavior. As a leader, it is important to foster group climates of innovation in an important psychological context. Leader-Member Exchange (LMX) as an important factor influencing employee behavior in various fields has not received sufficient attention in the context of education in Malaysia, especially among teachers. The lack of empirical studies examining the relationship between LMX and teachers' innovative work behavior raises the question of how leadership relationships influence teachers' work innovation in schools in the district.

Gap of Study

Previous studies on the relationship between Leader-Member Exchange and innovative work behavior have mostly focused on the corporate and private sectors, with little focus on the education sector (Bawuro et al., 2019). Among the studies involving teachers, the majority have focused on the general population without considering differences in context by district or type of school. Previous studies have examined the relationship between Leader-Member Exchange (LMX) and innovative behavior in various sectors; however, studies that specifically focus on the context of teachers in rural areas are still minimal. Most previous research has focused on urban contexts or corporate organizations with more substantial resources and support structures. In addition, the mediating role of psychological empowerment in influencing the relationship between LMX and innovative behavior has not yet been explored in the context of rural education in Malaysia. This gap indicates an urgent need for studies that examine this relationship by taking into account the unique contextual factors that influence teachers in rural areas. This gap raises the need for in-depth research to understand how the relationship between teachers and school leaders can influence teachers' innovative behavior in rural areas. Therefore, this study aims to fill this knowledge gap by focusing specifically on teachers and assessing the role of LMX in driving innovative work behavior in the educational context.

Significance of the Study

This study will be conducted to provide a deeper understanding of the relationship between Leader-Member Exchange (LMX) and innovative work behavior among teachers. The findings of this study are expected to assist school administrators and education policy makers in formulating more effective leadership strategies to promote innovation among teachers. By improving the quality of the relationship between leaders and teachers, it is hoped that teachers will be more motivated and competitive in implementing creative and innovative teaching approaches, thus improving the quality of education at the school level.

Scope of Study

This study focuses on teachers working in government schools in rural areas in Malaysia. The research focuses on measuring the Leader-Member Exchange (LMX) relationship between teachers and school leadership and how it influences teachers' innovative work behavior in carrying out their daily tasks. This study uses a convenience sampling method with data collected through an online questionnaire. Convenience sampling involves selecting participants who are easily reachable. In this case, teachers working in rural government schools may be geographically dispersed, which makes it hard to reach, so convenience sampling, like distributing an online questionnaire, makes data collection practical. The study's limitations cover aspects of quality of leadership and innovative work without including other factors that may also have an impact on innovative behavior, such as demographic background or type of school, in detail.

LITERATURE REVIEW

Innovative Work Behaviour

Janssen (2003) defined innovative work behaviour as the creation, introduction, and application of new ideas within an individual, work group, or organization that benefit the role performance. It also means making certain efforts to produce new or novel outcomes. Cameeli (2005) also defined Innovative work behaviour as individual behaviour that produces, introduces, and applies new things that benefit the organisation. Adding to the definition above(Yuan & Woodman, 2010) stated the innovative work behaviour as a complex behaviour, including activities such as generating or introducing a new idea by an individual or adopting from others.

According to A. Bos-Nehles et al.(2017) Innovative work behaviour is an individual's actions towards the generation, processing, and application/implementation of new ideas about how things should be done, including new products, ideas, technologies, procedures, or work processes, with the purpose of enhancing organisational effectiveness and success.

Three dimensions of innovative work behaviour are idea generation, coalition building, and executing the ideas. At the beginning of the process is identifying the problem and finding a suitable solution to handle it. Innovative work behaviour also includes activities related to the generation of ideas, getting support for the idea, and helping with its implementation(De Jong & Den Hartog, 2010)(Scott & Bruce, 1994). The three stages cover the complex activities of searching for and acquiring new ideas, seeking support from colleagues and supervisors, and implementing the ideas in the organisation.

Axtell et al. (2000) indicates that innovation is a complex process and has two elements, which are an awareness or suggestion phase, followed by an implementation phase. Suggestion and implementation can also be related to improvement in the work process, rather than coming up with radical new ideas.

Employees can generate ideas for innovations by engaging in behaviours that explore opportunities, identify performance gaps, or produce solutions to problems. For example, problems in existing working methods, unfulfilled customer needs, or indications that trends may be changing, so employees' idea generation is required. So, when the employees find a new idea to solve a work-related problem, they must find support for the idea through promotion and apply the idea to complete the innovation process.

Leader-Member Exchange And Innovative Work Behavior

The relationship between leaders and group members is an important factor in driving innovation in an organization. A positive relationship between leaders and employees allows employees to share ideas without fear of rejection. Through the Leader-Member Exchange (LMX) approach, this relationship is viewed as dyadic, which is the unique relationship that exists between a leader and each individual subordinate (Fisk & Friesen, 2012). LMX categorizes this relationship into two levels, namely high-quality and low-quality relationships. High-quality relationships are characterized by trust, respect, loyalty, and mutual obligations, while low-quality relationships are more transactional and formal, based on employment contracts (Z. Zhang et al., 2012).

A study by Bani-Melhem et al. (2020) of 303 frontline workers in a service organization in the United Arab Emirates (UAE) showed that the relationship between leaders and members indirectly influences employees' innovative behavior through their happiness. In a collectivist culture like the UAE, employees expect close and supportive relationships from leaders. Such support includes guidance, protection, and a sense of safety to voice ideas. This is in line with findings by Anand et al. (2018) and De Jong & Den Hartog (2010), which show that employees who receive positive input from leaders tend to actively engage in innovation and discussions at work.

A study by Kim & Koo (2017) involving 290 hotel employees in South Korea found that high-quality relationships between supervisors and employees had a positive impact on work engagement and increased innovative work behavior. This finding is consistent with Social Exchange Theory, which states that employees

will reciprocate positive relationships by showing higher performance. Employees who receive resources and support from the organization through strong relationships with their supervisors are more likely to perform tasks in innovative ways than those in low-quality relationships.

Zuberi & Khattak (2021) conducted a study of 292 employees from three multinational telecommunications companies in Islamabad, Pakistan, and found that proactive personality and LMX were strongly associated with innovative work behavior. This supports the view that quality LMX can create a safe work environment for employees to take risks in generating new ideas (Buengeler et al., 2021; Qu et al., 2017). Zhao et al. (2018) also supported the idea that employees in high LMX relationships had low conflicts with colleagues, thus encouraging them to think outside the daily work routine.

In a study by Atitumpong & Badir (2018) in the manufacturing sector in Thailand, positive relationships between supervisors and employees not only increased mutual understanding but also allowed employees to feel more empowered to explore and implement creative ideas. High LMX relationships were interpreted by employees as a sign of support, trust, and loyalty from supervisors. Based on social exchange theory, employees would reciprocate this relationship by showing higher engagement, effort, and work performance, including in terms of innovative behavior (Schermuly et al., 2013).

Although many studies have shown a positive relationship between LMX and innovative work behavior, there are also some studies that report non-significant results. For example, a study by Park & Jo (2018) in a government agency found no direct relationship between LMX and employee innovation. This is also supported by a study by Mascareño et al. (2020) involving employees from a Dutch organization, as well as studies by Schermuly et al. (2013) and Taştan et al. (2015), who also reported similar results in various organizations. These findings suggest that the relationship between LMX and IWB may be influenced by context, organizational culture, or other factors that have not been fully explored.

A recent study by Adikara (2021) found that the relationship between LMX and IWB was not significant among entry-level employees in the Indonesian government sector. Younger employees aged between 23 and 32 years were believed to be more confident and independent, thus less dependent on direct support from supervisors. Furthermore, being at the lowest level of the organizational hierarchy meant that they received less support and fewer resources for innovation from their supervisors. This suggests that the role of LMX may vary by position level and organizational structure.

According to LMX theory, leaders have different relationships with each team member. Subordinates with high-quality relationships will enjoy emotional support and relevant work information from supervisors (Bani-Melhem et al., 2022). Scott & Bruce (1994) stated that employees with high LMX relationships will show more effort, involvement, and innovative behavior. They also tend to spend time on non-routine tasks that stimulate creativity, compared to employees in low-quality relationships who focus more on routine tasks.

In the context of LMX, employees who are trusted by their supervisors will be given more autonomy in performing their tasks. This trust and freedom motivate employees to contribute ideas and spend time and effort to creatively solve problems. When employees feel that their voices are heard and their efforts are valued, they are more likely to come up with innovative solutions that benefit the organization. Thus, it can be concluded that high-quality LMX relationships are an important foundation for a work environment that supports innovation. The hypothesis is as follows:

H1. Leader-member exchange has a positive effect on innovative work behavior

Psychological Empowerment as mediator

Although many studies have shown a positive relationship between Leader-Member Exchange (LMX) and Innovative Work Behavior (IWB), the internal mechanisms that explain how this relationship occurs have not been fully explored, especially in the educational context. This study also suggests several moderator variables, such as level of work autonomy, organizational support, collective vs individualistic, and hierarchical level of

employees. The inconsistency of the above findings suggests that the relationship between LMX and IWB is most likely indirect. Therefore, this literature review argues that various psychological mediators serve as important mechanisms that explain how the quality of the leader-member relationship translates into innovative behavior. The psychological trust is built when a high-quality LMX is in place, which builds strong trust between leaders and followers. When followers trust their leaders, they feel safer taking risks, sharing new ideas, and trying unconventional approaches (Zhao et al., 2018). The trust reduces fears of rejection or punishment, thus encouraging innovative behavior.

In high-quality LMX relationships, leaders create a supportive and conflict-free environment with colleagues (Zhao et al., 2018). This environment fosters a sense of psychological safety, where individuals feel comfortable being themselves and taking interpersonal risks without worrying about negative consequences. The sense of safety directly supports the innovation process and psychological empowerment. High-quality LMX relationships provide followers with greater autonomy and power to carry out their tasks (Atitumpong & Badir, 2018). This autonomy, coupled with the leader's belief in their competence, leads them to feel psychologically empowered. This empowerment increases intrinsic motivation and the willingness to invest time and effort in the process of generating and implementing new ideas (Scott & Bruce, 1994). Accordingly, psychological empowerment is proposed as a mediator variable that has the potential to strengthen the relationship. Psychological empowerment refers to a psychological state in which individuals feel that they have control over work tasks, are able to make their own decisions, feel competent, and believe that their contributions have an impact on the organization. High-quality LMX relationships typically provide support, information, and autonomy to employees, which indirectly increases this sense of empowerment. When teachers feel psychologically empowered, they are more likely to try new methods, voice creative ideas, and implement innovations in teaching. Therefore, the following hypothesis is proposed:

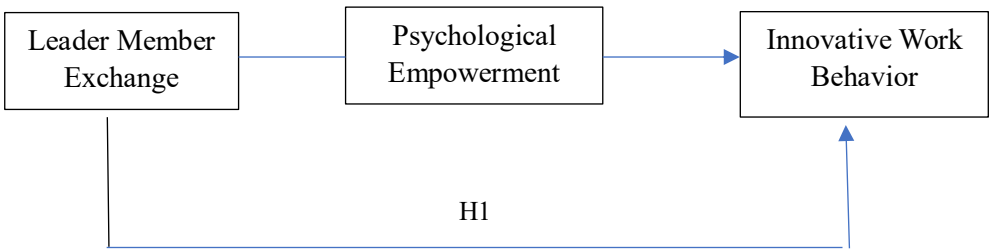
H2: Psychological empowerment mediates the relationship between leader-member exchange and innovative work behavior

Social Exchange Theory

This study is based on Blau's (1964) Social Exchange Theory, which holds that relationships between employees in organizations are built on mutually beneficial exchanges founded on commitment and trust. High-quality relationships promote the provision of psychological resources, including support, information, and recognition, that boost personal psychological empowerment in the context of leader-member relationships (LMX). Teachers are more likely to take the initiative and act innovatively in exchange for social interaction benefits when they feel psychologically empowered. As a result, SET offers a solid theoretical foundation for realizing how LMX can impact innovative work behavior via psychological empowerment.

Research Framework

In the framework of leader-member exchange (LMX), high-quality relationships foster the delivery of psychological resources, including support, information, and recognition, which enhance individual psychological empowerment. When the teachers experience psychological empowerment, they are more inclined to initiate and participate in innovative work behaviors as a result of favorable social exchanges. Consequently, SET offers a robust theoretical framework for comprehending how LMX can affect innovative behavior through psychological empowerment.



METHODOLOGY

Research Design

This study will utilize the quantitative research technique and will employ a survey method. Survey design is an appropriate strategy to utilize in this study since it helps the researchers efficiently measure the attitudes and opinions of respondents in a large population. To achieve the study objective, the researcher used a survey strategy by using a questionnaire technique. According to Bryman (2004), a survey strategy is a cross-sectional study in which data is gathered by conducting interviews or using questionnaires at a single point. The survey technique is used because it is more straightforward, cheaper, and more accurate to get the needed information (Alreck & Settle, 2004). It is usually used in social science studies because it is the most suitable for searching a large population (Newman, 2011). It saves time and money to collect data from a large sample size. It also guarantees that the respondent's background is kept anonymous (Ledy & Ormrod, 2005).

The participants in this study are secondary school teachers from a school in District M. To make sure that the sample is representative, we will use a probability sampling method called simple random sampling. Using the G-Power method, we will find the sample size that gives us a minimum statistical power of 0.80 and a significance level of 0.05. We expect this to be between 200 and 300 people. Sekaran and Bougie (2016) indicated that a sample size ranging from 30 to 500 is appropriate and suitable for a social science study. The questionnaire will be distributed online to all teachers through their respective headmasters to be distributed to all teachers in their respective schools using Google Forms.

The questionnaire for this study is divided into four sections. These sections are divided into Part

A: Demographic Information (Section A – respondent information; Section B Leader-Member Exchange, Section C – Psychological Empowerment, and Section D – Innovative Work Behavior. Section A contains seven (7) questions requesting the demographic profile of the respondents, such as gender, age, ethnicity, education level, length of service, length of work with current superior, and school name. Section B consists of twelve (12) items of leader-member exchange adapted from the previous work of Liden and Maslyn (1998); Section C consists of twelve (12) items that measure psychological empowerment, which is adapted from Spreitzer (1995), and Section D measures Innovative Work Behaviour with nine (9) items adapted from the previous work of Janseen (2000). A Likert scale ranging from 1 to 5 is used to get the respondents' perceptions, evaluations, feelings, and responses to the statements asked (Nardi, 2018), except for Part A, which is the Demographic Section. This study used a 5-point scale for its simplicity, comprehensiveness, less confusion, increased response rate, and ease (Al-Marri et al., 2007; Hayes, 1992).

Pre-testing is essential for detecting ambiguity, identifying the quality, clarity, and respondent

understanding, and evaluating the flow and adequacy of instructions for every section (Kumar, 2019). One expert in quantitative research and the field of study was approached to review. The questionnaire and corrections are made based on the experts' comments. As for the validation process, three lecturers in the department of management, who are experts in quantitative research, were selected to ensure the content validity of the current study. The experts verified the questionnaire by completing a validation form, after which they offered input based on personal experiences. The experts are informed about the study objective and asked to provide feedback on the questionnaire's suitability for gathering information on the constructs. The questionnaires were modified in accordance with their advice and given back to them for confirmation. All instruments were generally approved, with suggestions to improve some of the items. Based on the advice, changes were made, such as rewording the question and correcting grammatical mistakes. This procedure led to the establishment of the survey questionnaire's face and content validity.

The pilot study was conducted to identify the respondents' understanding of the questionnaire items. This test also assesses the questions ' reliability and validity before they can be used in the real study. To ensure the internal consistency of the research instrument, this study will carry out Cronbach's alpha. This method is the most widely used (Hair et. al. 2012). There are some general guidelines for the sample size that can be implemented. Usually, the required sample size is small (Sekaran, 2010). Hair. et al. (2012) suggested 5 to 30 respondents, while Cooper

(2006) recommended 25 to 100 respondents. For this study, 30 respondents are involved in the pilot test. According to Hair et.al.(2017), a pilot study of more than 30 people will not provide meaningful information in the instrument revision. Memon et al. (2017) also suggest that a sample size of 30 people is often recommended for pilot tests.

Thirty teachers from the primary school are involved in this test to confirm the content validity. It is recommended that the standardized loading estimates should be 0.5 or higher, and ideally 0.7 or higher. (Hair et al., 2012). The findings of the pilot test survey revealed that the construct's reliability is within the 0.850 to 0.915 range, summarised in the table below. Since the majority of the Cronbach's Alpha of the construct is greater than 0.7, which showed a good internal consistency of the research instrument, none of the items were dropped from the questionnaire. The results from the pilot test showed that the reliability measurement was adequate, and the questions were satisfactory, reliable, and good enough for continuing with the actual data collection.

Pilot Test Result

Reliability Test	Number of Items	Cronbach's Alpha
Leader Member Exchange	12	0.944
Psychological Empowerment	12	0.864
Innovative Work Behavior	9	0.918

This study will use the path analysis technique or Structural Equation Modelling (SEM) to test the relations between the latent construct and observed variables to test the specification of the link between the latent construct. This study will use Smart PLS 4.0 software to generate path analysis. PLS is suitable to provide results in line with the objective.

The data will be analyzed using the partial least squares structural equation model (PLS-SEM) through the SMART PLS software. The analysis will include two main stages of measurement model, where convergent validity will be tested through Average Variance Extracted (AVE) with a minimum value of 0.5 and outer loading of each item exceeding 0.7, indicating that the variable is convergently valid (Hair, 2017). Construct reliability will be assessed using composite reliability and Cronbach's alpha, with values above 0.7 indicating good reliability. Discriminant validity will be examined through the Fornell-Larcker Criterion and Heterotrait-Monotrait (HTMT), where HTMT values below 0.85 indicate good discriminant validity between constructs (Kline, 2011). In a structural model, where the relationship between the constructs is tested through path coefficients with significant values ($p < 0.05$), indicating that the hypothesis is accepted. The R^2 value will be analyzed to assess the degree of variance of the dependent construct that can be explained by the independent variable. The mediation effect of psychological empowerment in the relationship between LMX and IWB will be tested by using the bootstrapping "bootstrapping the indirect effect" method. This investigation employed a 5,000-bootstrap sample to confirm the stability of the data, as recommended by Ringle et al. (2015). To overcome the problem of common method bias, the variance inflation factor (VIF) statistical approach, with a VIF value of < 3.3, is considered free of multicollinearity problems, and Herman's single-factor test to ensure that one factor does not explain most of the data variance.

FUTURE STUDY

Future research should consider including control variables such as age, years of teaching experience, and type of school for potential confounding effects. These variables may impact both psychological empowerment and innovative work behavior, and controlling for them could yield more robust and generalizable findings.

CONCLUSION

This conceptual paper emphasizes the important role of leader-member exchange as a catalyst in the relationship between Leader-Member Exchange (LMX) and Innovative Work Behavior (IWB). By proposing psychological empowerment as a mediator, this study not only contributes to a deeper understanding of the internal mechanisms that link leadership and innovative behavior but also provides practical implications for organizational management in an effort to increase innovation among employees. Leaders who build high-quality relationships

with team members and actively empower them psychologically have the potential to create a work environment that is more creative, proactive, and responsive to change. Therefore, this study is hoped to open up space for further research and more strategic management practices in the modern era of innovation-based work.

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