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Leader-Member Exchange and Its Impact on Employee Innovative Work Behavior: An Analysis of Nepalese IT Sector

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Abstract

In today's fast-paced and highly competitive markets, companies must prioritize innovation to remain competitive. In this context, leadership plays a pivotal role, as leaders are responsible for fostering an environment that encourages employee creativity and innovation. This study investigates the impact of Leader-Member Exchange (LMX) dimensions, as well as the overall quality of LMX, on employees' innovative work behavior. A descriptive research design was employed, utilizing online survey responses from 263 employees in the IT sector of the Kathmandu Valley. Descriptive statistics and structural equation modeling were applied to analyze the data. The findings revealed a moderate level of LMX quality within the IT sector. Furthermore, overall LMX quality was found to have a significant positive effect on employees' innovative work behavior. Among the four dimensions of LMX, loyalty and professional respect were identified as having a significant positive influence on innovative behavior, while affect and contribution had no significant impact. Based on these results, it is recommended that organizations invest in LMX training and carefully select leaders with this leadership style to enhance and foster employee innovation.

Keywords: Leader-Member Exchange (LMX), Innovative Work Behavior (IWB), Information Technology (IT), Professional respect (RES), Affect (AFF)

Introduction

In today's dynamic environment, no organization can ensure survival without continuous innovation (Park & Jo, 2018). Innovation and creativity in the workplace have become crucial determinants of organizational performance, success, and long-term survival. Innovation is not just an auxiliary aspect; it is integral to organizational performance (Atitumpong & Badir, 2018), and employee innovation is essential for creating a sustainable competitive advantage.

As noted by Tierney and Farmer (2017), many factors influence organizational innovation, but it fundamentally begins with the creativity of individuals and small groups. Motivated personnel not only drive incremental gains but also generate innovative ideas. Thus, organizations benefit from fostering creativity through various styles of engagement with their employees. However, generating creative ideas requires stepping outside existing mental frameworks, posing challenges for individuals to marshal the cognitive resources and perseverance necessary for success. Numerous studies have explored the triggers of innovative work behavior (IWBs) among employees, identifying various determinants of innovation (Kheng, June & Mahmood, 2013). Park and Jo (2018) emphasized that innovation cannot flourish without freedom, arguing that employees should have the autonomy to alter their task execution, develop original solutions, and apply innovative ideas without obstruction.

Leaders are recognized as the primary promoters of creativity within organizations. Effective leadership is crucial for companies aiming to cultivate innovation and entrepreneurial thinking among employees. While employees focus on daily operational tasks, leadership style significantly impacts the generation and implementation of creative ideas (Ghimire, Haron & Bhatti, 2021). The characteristics and context of leadership can either foster or impede the creative environment. Denti and Hemlin (2012) view organizational innovation as the result of individual, team, and organizational efforts that produce new products, processes, or services attractive to the market. This underscores the importance of the exchange relationship between leaders and members for fostering innovative work behavior.

This research aims to examine the relationship between LMX quality and employee IWB. Leader-member exchange operates within the context of an organization's culture, shaped by specific constructs. The study assesses the influence of LMX dimensions; affect, loyalty, contribution and professional respect on employees' readiness to introduce new ideas. LMX theory has been extensively studied to highlight its positive organizational outcomes (Graen & Uhl-Bien, 1995). Employees are a significant source of innovation, and leaders' interactions with their followers are thought to foster positive deviations in performance. The quality of the LMX relationship between a leader and their members affects various outcomes, including efficiency, performance, and commitment, with a particular emphasis on innovation (Liden and Maslyn, 1998). Organizations should invest in LMX training and prioritize leaders who embody this style to enhance creativity and innovation among employees.

The IT industry is characterized by intense competition, where innovation serves as the key strategy for achieving competitive advantage (Goswami & Mathew, 2005). Creativity and innovation in the IT sector are essential for sustainable success and are vital for the survival of small and medium enterprises (Ghimire et al., 2021). While many sectors have been studied globally regarding the relationship between leadership and employees' IWBs, the IT industry remains relatively unexplored. This gap is particularly relevant in Nepal, where research in this area is still emerging. The IT sector in Nepal is burgeoning, with the Investment Board of Nepal identifying Information and Communications Technology (ICT) as one of the fastest-growing sectors, offering substantial potential for future growth. Given the rapid changes and competitiveness within the IT industry, companies must cultivate ways to promote IWBs among employees. This study will examine the relationship between the quality of LMX and IWBs in the IT sector of the Kathmandu Valley, contributing valuable insights into the intersection of leadership and innovation.

Literature Review

Innovation

Zawawi et al. (2016) argue that innovation is an important element in today's world as products, services and technologies are moving faster to take place in customers' hearts, thus generating unbreakable benefits and profits to the

firms and businesses. The term "Innovation" is always linked to the insertion, implementation or development of an idea, product or service for the purpose of utility in society (Nakato & Wechsler, 2018). Many definitions suggest that the value of innovation lies in its contribution to profit or addition to economic value (Goswami & Mathew, 2005).

In today's competitive marketplaces, innovation is seen as one of the most important drivers of long-term success for businesses (Singh, 2011). Newness and originality are two elements of innovation (Goswami & Mathew, 2005). The newness dimension is concerned with how quickly a new solution is given in compared to that of a rival or substitute in the context of this article. As a result, it has something to do with speed. The novelty dimension is concerned with how a new demand is met, or how an existing need is met differently than before. New ideas are produced, suggested, executed, and implemented to produce these innovations.

Innovative Work Behavior

The epistemology of innovative work behaviours was derived from the term innovation. Usually, the word innovation is often being confused with the word invention (Zawawi et al., 2016). For managers, innovation is vital, but paradoxical, requiring flexibility and empowerment, as well as control and efficiency (Khazanchi, Lewis & Boyer, 2007). Janssen (2000) defined IWB as the intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group or the organization. Workplace innovation can be understood as a broader process that not only includes idea generation (creativity), but also the implementation of ideas within the work setting (Hammond et al., 2011). Atitumpong and Badir (2018) stated that, nowadays, IWB of employees is essential for the success of an organization because an organization cannot be innovative without their employees.

Understanding innovative work behavior is important for the field of individual innovation (De Jong & Den Hartog, 2008). Innovative work behavior has been the issue of discussion for so many years now. However, inconsistent findings make it a topic which needs further advancement in terms of literature. Creativity and innovation are two close terms, sometimes used interchangeably. Nevertheless, scholars have agreed upon a concept that creativity is the initial process of innovation and the generated idea has to be

implemented it to be an innovation.

Leadership

Moghimi (2016) states that despite years of research in the field of leadership, researchers can hardly agree on the definition of leadership. The complexity of leadership is such that even after reviewing so much material in this topic, academics are still unsure what leadership is and what its constructs are. This complexity is exacerbated by the various views used by different scholars when studying leadership, as well as their focus on only one component of leadership. Although there are hundreds and thousands of definitions given by different scholars, there are certain common factors in definitions of leadership such as "process", "influence", "followers", and "goals" (Northouse, 2007, as cited in Moghimi 2016). Yukl, (2010) attempted to provide a comprehensive definition of leadership, and defined it as "the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives". Despite the fact that this is an acceptable standard definition of leadership, it should be noted that numerous frameworks have been used to study the construct in the past, some of which may or may not be in total accord with this definition.

According to Liden, Sparrowe and Wayne (1997), in leadership literature, there are several contemporary leadership theories ranging from transformational to authentic or servant leadership theories, but there is only one that is considered to be foremost dyadic in nature, and is named as Leader-Member Exchange Theory. This study is concerned with examining the impact of LMX quality on the innovative work behavior of the employees in IT sector. The next section presents the theoretical review of the existing literature in the field of LMX.

Leader-Member Exchange

The LMX theory builds on social exchange theory and assumes that a supervisor has a unique relationship with each employee (Graen & Uhl-Bien, 1995), which is negotiated over time as a result of role expectations and fulfilments between leaders and members. Graen and Uhl-Bien (1995) described the three domains of leadership in detail. Leader-based approach focuses on leader behavior and characteristics, such as leader traits, leader behaviors, personality behaviors, leader attitudes, leader perceptions,

leader power and influence and so on. On the other hand, follower-based approach is concerned about follower's traits, behaviors, perceptions, expectations and their impact on leadership styles and techniques. Finally, relationship-based approach would focus on the dyadic relationship between leader and the follower.

According to Burns and Otte (1999) the manager does not have time to give all members equal attention and establishes a close relationship with only a few key members who become the "in-group." They further suggest that in initial interactions, judgments are made and opinions are formed by the leader and the member. If the opinion is positive, the leader will assign better tasks to the member and the member will experience more support. Subordinates who make a part of the in-group, unlike the members of the out-group, get more support, confidence, information and concern from their leaders. On the other hand, low quality exchange relationships persist with the members who are not part of the subset, limited to the leader's job description (Erdogan & Liden, 2002). As such, members of out-group get unchallenging task with restricted formal relationship with leader and get less respect and trust from their respective leaders and have less influence on others.

Conceptualizations of LMX development suggest that leader rather than the member has more control over the quality of exchange that develops between the leader and member (Liden et al., 1997). Rather than focusing on member and leader characteristics separately, researchers have investigated interactional variables as determinants of LMX (Liden et al., 1997). Liden and Maslyn (1998) have advocated multidimensionality of LMX theory with four factors; affect loyalty, contribution and professional respect.

Dimensions of LMX

Taking role theory as the basis for their claim, Dienesch and Liden (1986) proposed LMX as multidimensional theory. According to them, as the roles are pervasively accepted as multidimensional aspect, so does the LMX as it is directly evolved from role theory. Graen and Uhl-Bien (1995) concluded that LMX is constructed by multiple dimensions, but these dimensions can be tapped into one single measure of LMX. Three work-related dimensions namely respect, trust and obligation were proposed by Graen and Uhl-Bien (1995) as the ingredients of strong leader-member relationships. However,

Dienesch and Liden (1986) specified LMX dimensions as multidimensional which includes four dimensions: perceived contribution, loyalty, affect and professional respect.

Figure 1
Dimensions of LMX

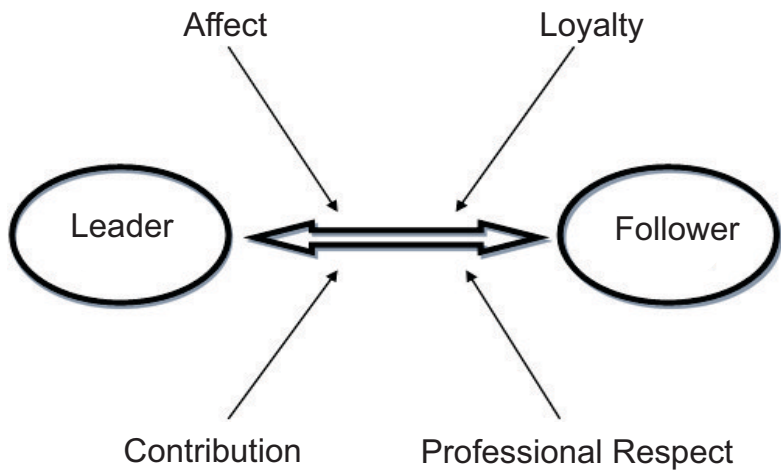


Table 1
Definition of LMX Dimensions

Affect	The mutual affection members of the dyad have for each other based primarily on interpersonal attraction, rather than work or professional values.
Loyalty	The expression of public support for the goals and the personal character of the other member of the LMX dyad. Loyalty involves faithfulness to the individual that is generally
Contribution	Perception of the current level of work-oriented activity each member puts forth toward the mutual goals (explicit or implicit) of the dyad.
Professional Respect	Perception of the degree to which each member of the dyad has built a reputation within and/or outside the organization, of excelling at his or her line of work.

Literature has shown that different LMX dimension has different level of impact on individual and organizational outcomes. In this study researchers are studying the impact and magnitude of the four dimensions on the employee innovative behavior.

Relationship between LMX and IWB

The relationship between Leader-Member Exchange (LMX) and employee innovativeness is critical for today's businesses, as a company's innovative potential relies heavily on its employees' creativity (Chen, Chang & Chang, 2015). Creativity, defined as the use of unique problem-solving strategies is a fundamental component of innovativeness, which involves both generating and applying ideas. Thus, findings on creativity are often relevant when considering innovativeness.

Research on the link between LMX and innovation has produced mixed results. While some studies indicate a direct impact of LMX on inventiveness, others conclude that LMX does not significantly affect innovation (Khalili, 2018). Disparities in findings may stem from the nature of the innovation process and its operationalization (Mascareño, Rietzschel & Wisse, 2020). Lee (2008) found a significant relationship between the loyalty dimension of LMX and the innovativeness of R&D professionals in Singapore, suggesting that high-trust exchanges enhance innovation. Hammond et al. (2011) also identified LMX as a significant predictor of employee innovative behavior.

Muñoz?Doyague and Nieto (2012) studied employees in the automotive sector and found that closer leader-subordinate exchanges improve awareness of employee needs and challenges, thus enhancing innovation. Sanders et al. (2010) also reported a positive relationship between LMX and innovative work behavior. Kheng et al. (2013) discovered a strong positive association between LMX, social capital, and innovative work behavior among knowledge workers in Malaysia. When employees feel fairly rewarded, high LMX fosters an environment conducive to sharing creative ideas. Khalili (2018) analyzed 1,221 employees across various organizations in Australia, finding a significant positive relationship between LMX quality and employee creativity and innovation.

In contrast, Zhang and Zhou (2019) suggested that high LMX can negatively influence creativity by reducing vertical task conflict. Liden et al. (2006) posited that members with low LMX may achieve better outcomes under conditions of high LMX differentiation, as witnessing successful exchanges

encourages them to adopt positive attitudes.

Kauppila (2015) echoed this by suggesting that low LMX members prefer group environments where they can form higher-quality LMX relationships, contrary to Liden et al. (2006), who claimed that high LMX members are unaffected by differentiation. This study implies that LMX differentiation can increase workload and rivalry among high LMX members, potentially eroding their job attitudes. These inconsistent findings regarding LMX and innovation highlight the need for further research in this area.

Theoretical Framework

In this research the researcher has planned to examine the relationship between LMX quality and employee IWB. The researcher has developed the framework based on the literatures of Atitumpong and Badir (2018). The researcher will use LMX quality explained by four reliable dimensions; affect loyalty, professional respect and contribution suggested by Liden and Maslyn (1998) as independent variable and employees' IWB will be used as dependent variable.

Figure 2

Theoretical Framework (Atitumpong & Badir, 2018)

Research Method

In this research, the primary objective of the researcher is to examine the impact of LMX quality on IT employee's IWB. As the quantitative data has been collected through survey method to assess the status of LMX and IWB relationship, quantitative approach towards descriptive and explanatory casual research design has been used for empirically speculating the research objective. The non-probability convenience sampling was applied to collect the desired data. The study has been conducted focusing the IT sector only. The larger population for this study consists of all the employees

in all the departments at every level of the IT sector having a direct supervisor. The adequate sample size for the study was set at 384 (Cochran, 1963). However, only 263 responses were received that makes the response rate of 68.50% which is considered to be suitable for this research.

The survey was comprised of four sets of questions that were presented to respondents in this order: demographic questions, LMX questions and innovative work behavior questions. LMX Dimension measures are adapted from Liden and Maslyn (1998) and employee IWB is measured by the help of scale developed by Janssen (2000).

This study is based on primary source where the data was collected from self-administered questionnaire to be rated by the employees in IT sector. The questionnaire contains questions related to respondent profile, LMX quality and employee's innovative work behavior. A7-point Likert scale was used for the sake of uniformity for measuring the variables understudy. The questionnaire was prepared in Google form and forwarded to the employees in IT sector via email. All the responses are collected electronically.

For this research, the collected data was analyzed into two different stages. In the first stage, SPSS version 25 was used for the purpose of descriptive statistics about the respondents and the preliminary data analysis such as missing value, outliers and extreme values, mean and standard deviation. While in the second stage Structural Equation Modeling (SEM) were used to test and examine the relationships among variables within the proposed conceptual framework.

Results and Discussion

In this chapter the analysis is carried out in line with the objectives of the study. All the hypotheses framed are tested and the results discussed in detail. Appropriate statistical tools for data analysis are used to explain and interpret the data collected from the IT sector employees in Kathmandu. It includes respondent's profile, existing status of LMX quality and the innovative behavior. Further, the data are analyzed and tested for the effect of LMX on employee's innovative work behavior.

Demographic Profile of the Respondent

Table 2.

Respondent's Profile

		Frequency	Percentage
Gender	Male	193	73.4
	Female	70	26.6
Age (years)	20-30	188	71.5
	31-40	70	26.6
	41-50	5	1.9
Highest Educational Qualification	Intermediate Degree	2	0.8
	Bachelor's Degree	191	72.6
	Master's Degree	70	26.6
Job Type	Full Time	224	85.2
	Part Time	39	14.8
Functional Area	HR Management	18	6.8
	Accounting and Finance	36	13.7
	Administration	27	10.3
	Research and Development	89	33.8
	Quality Assurance	16	6.1
	Sales and Marketing	40	15.2
	Technical Support	22	8.4
	Others	15	5.7
Years in the Company	Less than 2 years	156	59.3
	2 - 5 years	98	37.3
	Over 5 years	9	3.4
Years under Current Supervisor	Less than 1 year	124	47
	1 - 3 years	123	47
	Over 3 years	16	6

Table 2 exhibits the demographic profile of the respondents belonging to IT sector of Kathmandu Valley. Out of total 263 respondents, 73.4 percent were male and the remaining 26.6 percent were female. Majority of the respondents fall under age group 20-30. 71.5 percent of the respondents belong to the age group 20-30, 26.6 percent belong to the age group 31-40

and only 5 of the respondents belong to the age group 41-50. In terms of educational qualification, 2 of the respondents have highest educational qualification of intermediate level, 72.6 percent of the respondents have bachelor degree and 26.6 percent have a master's degree. 85.2 percent of the respondents had been working as full type employee in the company and remaining 14.8 percent had been working as part time employee in the company.

Respondents were from diverse functional areas in their respective companies, however majority (33.8%) were working in Research and Development followed by Sales and marketing (15.2%), Accounting and Finance (13.7%), Administration (10.3%), Technical support (8.4%), HR management (6.8%), Quality Assurance (6.1%) and others (5.7%). 59.3 percent of the respondents had been working in the company for less than 2 years, 37.3 percent for 2-5 years and only 9 respondents had been working in the company for more than 5 years. Of the total 263 respondents, an equal proportion (47%) have been working under present supervisor for less than 1 year and 1-3 years each while the remaining 6 percent of the respondents have been working under current supervisor for more than 3 years.

Measurement Model

This study employed confirmatory factor analysis in order to examine the relationship among the different constructs and items within the proposed model. To assess the measurement model in CFA, researcher first considered the reliability and validity of the constructs and then evaluated the measurement model fit. Researcher applied CFA to the proposed model with 21 indicators. There were no validity and model fit issues were found. Hence, model is with a total of 21 items in which there are 9 items of innovative work behavior and 3 items for each of the four dimensions of LMX.

To estimate the model's parameters, researcher used the maximum-likelihood method, with all analyses performed on variance-covariance matrices (Hair et al., 2010). There are some fit indices that should be considered in order to assess the model goodness-of-fit (Kline, 2005; Hair et al., 2010). Table 3 shows the indices used to test the fitness of measurement model. Model fit indices indicate an overall fit for CFA model. CMIN/df is 1.866 which falls well below the threshold of less than 3 as suggested by Hu and Bentler (1999). Hu and Bentler (1999) suggested RMSEA should be less than

0.05 for a model to be good fit while Browne and Cudeck (1993) considered RMSEA value of less than 0.08 an acceptable degree of model fit. RMSEA in this model is 0.057 which suggests relatively good fit. AGFI is 0.824 which is above the threshold of 0.80 (Hu & Bentler, 1999). CFI is 0.953 which also shows excellent fit of model as it is above the provided threshold of 0.95 (Hu & Bentler, 1999). Similarly, PCFI and PGFI values are 0.832 and 0.694 are well above the threshold of 0.50 supporting the model fit (James, Mulaik & Brett 1982). IFI value must be above 0.90 (Bollen, 1990) and TLI should also be higher than 0.90 (Hu & Bentler, 1999). Both, IFI and TLI values in table 3 are 0.953 and 0.946 both above the threshold of 0.90 establishing good fit for CFA model. According to Hair et al. (2010), at least three indices must be fitted well for model to be fit. Hence, the CFA model in this particular study is tested to be fit because most of the model fit indices satisfied the suggested thresholds.

Table 3.

Model Fit Indices for Final Measurement Model

Measures	Observed value of the model
X^2	529.877
Degrees of Freedom (df)	284
CMIN/df	1.866
Root mean square error of approximation (RMSEA)	0.057
Adjusted Goodness-of-fit index (AGFI)	0.824
Comparative fit index (CFI)	0.953
Parsimony-adjusted CFI (PCFI)	0.832
Parsimony-adjusted (PGFI)	0.694
Incremental fit index (IFI)	0.953
Tucker-Lewis index (TLI)	0.946

The outputs of CFA were further assessed for analyzing the construct reliability, convergent validity and discriminant validity. The reliability of the constructs was measured by Cronbach's alpha. In this part the scale reliability was presented. Factor loading (FL), Composite Reliability (CR) and Average Variance Extracted (AVE) were used to test the convergent validity.

Discriminant validity is established by the use of Average Variance Extracted (AVE), Maximum Shared Square Variance (MSV) and Average Shared Square Variance (ASV). To further assess the discriminant validity Fornell and Larcker (1981) and Heterotrait-Monotrait Ratio (HTMT) criteria were taken into consideration.

Reliability and Convergent Validity of the Final Model

Convergent validity is the degree to which two conceptions that should be correlated in theory are actually associated. The result of reliability and convergent validity is presented in table 4. The value of Cronbach's alpha and CR for all the constructs are higher than 0.70. This shows that there is satisfactory level of internal consistency of the measures and establishes the construct reliability of the final model. Convergent validity is established through factor loading and the values of AVE. Factor loadings for all the items are above threshold level of 0.6 (Chin, 1998). Hence, convergent validity is established. Convergent validity is further confirmed through estimation of AVE as recommended by Fornell and Larcker (1981), values must be greater than 0.5. All the constructs have AVE value higher than 0.5. All the criteria for convergent validity are satisfied to establish adequate level of convergent validity for the final model.

Table 4.
Reliability and Convergent Validity

Constructs	Items	Factor Loadings	Cronbach's Alpha	CR	AVE
Affect (AFF)	A1	0.829	0.897	0.897	0.744
	A2	0.859			
	A3	0.899			
Loyalty (LOY)	L1	0.92	0.911	0.915	0.782
	L2	0.915			
	L3	0.813			
Contribution	C1	0.786	0.886	0.887	0.724
(CON)	C2	0.947			
	C3	0.812			
Professional	P1	0.854	0.912	0.912	0.777
Respect (RES)	P2	0.901			
	P3	0.888			
Innovative Work	IWB1	0.893	0.936	0.937	0.623

Behavior (INN)	IWB2	0.813
	IWB3	0.795
	IWB4	0.784
	IWB5	0.765
	IWB6	0.777
	IWB7	0.773
	IWB8	0.764
	IWB9	0.728

Discriminant Validity of the Final Model

Discriminant validity is a test to ensure there is no significant variance among different variables that could have the same reason. Discriminant validity indicates to differentiate between one construct and another in the same model (Ghadi, et al., 2012). Discriminant validity is measured by examining the correlation between the measures of the potential overlapping constructs (Fornell & Larcker, 1981). Table 5 illustrates the first criterion used to establish discriminant validity of the model. The MSV and the ASV results need to be lesser than the AVE for the discriminant validity (Hair et al., 2010). In table 5, MSV and ASV values are lesser than AVE values for all the variables establishing the discriminant validity. Discriminant validity is further confirmed with Fornell and Larcker (1981) criterion. According to this criterion square root of AVE must be greater than inter-construct correlations for establishing discriminant validity. Table 6 elucidates that the model satisfies this criterion for further confirming the discriminant validity. Finally, Heterotrait-monotrait ratio of the correlations (HTMT) approach suggested by Henseler, Ringle and Sarsted (2015) was also used to assess discriminant validity. Under HTMT approach, some authors suggest a threshold of 0.85 (Kline, 2011), whereas others propose a value of 0.90 (Henseler et al., 2015). All of the values in Table 7 are less than the required threshold values of HTMT.85 by Kline (2011) and HTMT.90 by Henseler et al. (2015), showing that discriminant validity is established for this study.

Table 5.

Discriminant Validity with AVE, MSV and ASV

Variables	AVE	MSV	ASV
Innovative Work Behavior (INN)	0.623	0.417	0.229
Affect (AFF)	0.744	0.548	0.343
Contribution (CON)	0.724	0.391	0.271

Loyalty (LOY)	0.782	0.548	0.318
Respect (RES)	0.777	0.443	0.366

Table 6.

Discriminant Validity with Fornell and Larcker (1981) Criterion

	INN	AFF	CON	LOY	RES
INN	0.789				
AFF	0.382***	0.863			
CON	0.389***	0.592***	0.851		
LOY	0.417***	0.740***	0.527***	0.884	
EFFE	0.508***	0.638***	0.626***	0.574***	0.881

Table 7.

Heterotrait-monotrait Ratio (HTMT)

INN	AFF	CON	LOY	RES
INN				
AFF	0.393			
CON	0.367	0.587		
LOY	0.419	0.765	0.55	
RES	0.513	0.631	0.623	0.594

Correlation between Variables

Pearson's correlation is used in this research to shows the relationship between independent and dependent variable. Table 8 shows the relationship between LMX, its dimensions, and innovative work behavior.

Table 8.

Correlation Matrix

	Affect	Loyalty	Contribution	Professional Respect	IWB	LMX
Affect	1					
Loyalty	.692**	1				
Contribution	.523**	.494**	1			
Professional Respect	.573**	.542**	.559**	1		
IWB	.359**	.388**	.334**	.474**	1	
LMX	.862**	.841**	.772**	.806**	.472**	1

**. Correlation is significant at the 0.01 level (2 -tailed).

In the table 8, it can be observed that all the correlation coefficients are significant at p-value of 0.01. LMX and IWB have a moderately positive correlation (r= 0.472) which indicates that higher LMX quality increases frequency of IWB among employees but the relationship is only moderate. Among all the dimensions of LMX, professional respect has highest correlation with IWB (r= 0.474) followed by loyalty (r= 0.388), affect (r= 0.359) and contribution (r= 0.334). All four dimensions show higher correlation with overall LMX because they are averaged to get overall value of LMX.

Structural Model

Once the model's reliability, convergent validity, and discriminant validity have been proven, the next step is to examine the exogenous and endogenous variable's associations, which can be done during the structural model stage. There is a requirement to distinguish between dependent and independent variables, unlike the CFA. The causal relationship between an independent variable and a dependent variable is represented by a single arrow in SEM, but the covariance between the independent variables is assumed by two-headed arrows. As per the objectives and the hypothesis set for the study, path with first order model was assessed for testing the hypotheses H1, H2, H3, H4 and H5.

Influence of LMX Dimensions on Innovative Work Behavior

The path depicts the influence of four LMX and its dimensions with employee IWB. The path is demonstrated in as figure 3. Model fit indices like CMIN/df= 1.454, RMSEA= 0.042, PCLOSE= 0.899, GFI= 0.914, AGFI= 0.889, CFI= 0.981, PCFI= 0.836, PGFI= 0.708, IFI= 0.981 and TLI= 0.977 show that the model is acceptable and fit to the data for further analysis (Hair et et al., 2010; Hu & Bentler, 1999). Summary of these indices is presented in table 10.

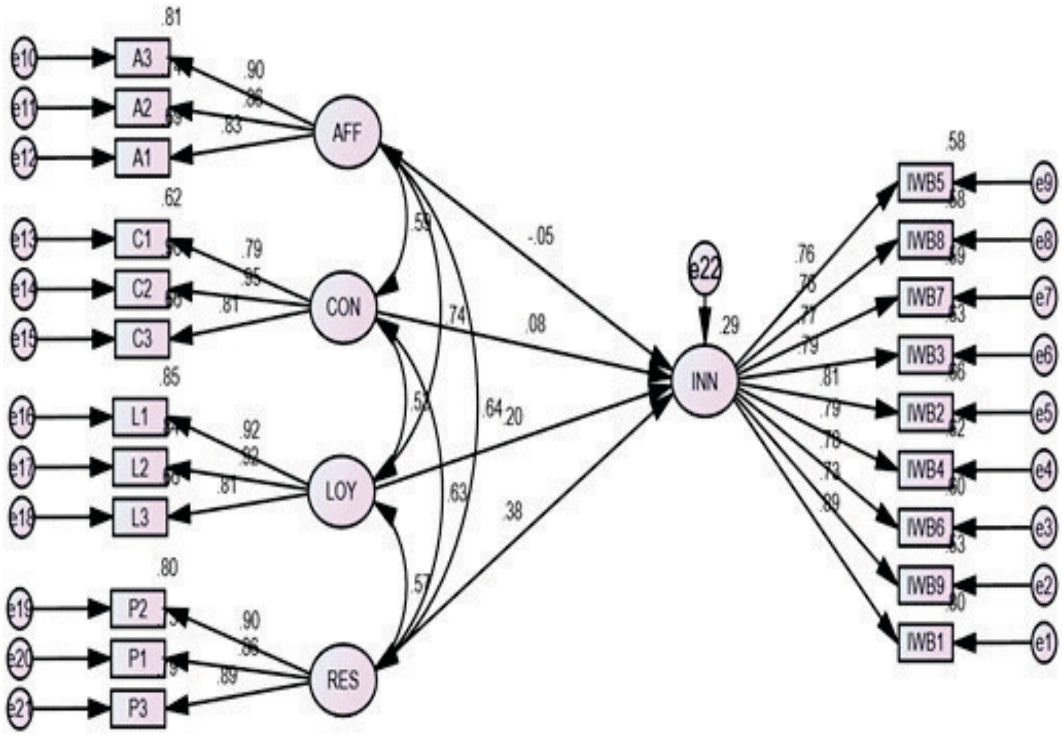
Table 9.

Summary of Model Fit Indices for First-order Structural Model

Measures	Observed value of the model
X^2	260.184
Degrees of Freedom (df)	179
CMIN/df	1.454
Root mean square error of approximation (RMSEA)	0.042
Goodness-of-fit index (GFI)	0.914

Adjusted Goodness-of-fit index (AGFI)	0.889
Comparative fit index (CFI)	0.981
Parsimony-adjusted CFI (PCFI)	0.836
Parsimony-adjusted (PGFI)	0.708
Incremental fit index (IFI)	0.981
Tucker-Lewis index (TLI)	0.977

Figure 3
First-order Path Analysis



In order to assess the effect of four LMX and its dimensions in employee's innovative work behavior first-order path analysis presented as figure 3 was assessed. Standardized regression weights are presented in the table 10.

Table 10.
Standardized Regression Weights of the Model

Hypothesis	Exogenous	Path	Endogenous	Estimate	S.E.	p-value
H1	LMX	→	INN	0.531	0.088	0.00
H2	AFF	→	INN	-0.051	0.087	0.629
H3	LOY	→	INN	0.196	0.086	0.039
H4	CON	→	INN	0.079	0.093	0.338
H5	RES	→	INN	0.379	0.091	0.00
						R^2=0.29

The results in table 10 show that 29% of total variance in innovative work behavior is explained by the model as a whole (R2= 0.29). The regression weights indicate that only three out of five hypothesized relationships are supported. More specifically, affect (?= -0.051, p=0.629) seems to have a negative influence on IWB. However, the magnitude of influence is not significant. Loyalty (?= 0.196, p<0.05) has significant positive influence on IWB. Next to this, contribution (?= 0.093, p=0.338) also has a positive effect on IWB but the effect is not significant enough. Professional respect (?= 0.379, p< 0.01) was found to have the strongest significant positive influence on IWB. Finally, there is significant positive impact of overall LMX quality (?= 0.531, p<0.01) on innovative work behavior of employees. The results from the path analysis supported the hypotheses H1, H3 and H5 while H2 and H4 failed to get support. The summary of the hypotheses is given in the table 12.

Table 11.
Summary of Hypotheses Test (H1, H2, H3, H4 & H5)

Hypotheses	Result
H1: LMX quality influences employees innovative work behavior	Supported
H2: Affect influences employee's IWB.	Not Supported
H3: Loyalty in fluences employee's IWB.	Supported
H4: Contribution influences employee's IWB.	Not Supported
H5: Professional respect influences employee's IWB.	Supported

Discussion

This study empirically examined the effect of LMX and its dimensions on employees' innovative work behavior (IWB) in the IT sector of the Kathmandu Valley. The findings contribute to the literature on leadership's impact on employee creativity and innovation, expanding previous research on the interaction between LMX and IWB.

The results revealed that overall LMX quality significantly influences employees' IWB, aligning with earlier research (Scott & Bruce, 1994; Basu & Green, 1997; Sanders et al., 2010; Volmer et al., 2012; Munoz et al., 2012; Kheng et al., 2013; Khalili, 2018; Atitumpong & Badir, 2018). This suggests that strong leader-employee bonds are essential for navigating current work procedures. Employees with a solid connection to their supervisors experience greater innovative freedom, indicating that a social exchange model enhances innovative behavior (Khalili (2018).

The findings are consistent with Schermuly, Meyer and Dammer (2013) and Volmer et al. (2012), highlighting the crucial role supervisors play in the innovation process. Employees tend to feel more optimistic about how their contributions will be perceived, reinforcing the importance of the quality of the LMX relationship in facilitating IWB.

Examining the four LMX dimensions individually revealed that only loyalty and professional respect significantly impacted employees' IWB, while affect and contribution did not. Professional respect aligns with findings from Mascareño et al. (2020), indicating that employees view competent leaders as more likely to support creative efforts. This assurance allows employees to experiment without fear of failure. This is probably due to the tendency of IT professionals respecting the skill rather than position.

Similarly, the positive impact of loyalty on IWB supports Maslyn and Uhl-Bien (2001). Employees who perceive high loyalty in LMX expect support when trying new ideas, fostering innovative behavior. While Lee (2008) identified only loyalty as a significant predictor of IWB, this study found professional respect to also play a crucial role. Differences in measurement scales and cultural contexts may explain these discrepancies. Lee's study focused on R&D professionals in Singapore, highlighting potential cross-country cultural influences on LMX and innovation.

Interestingly, the affect dimension, associated with emotional ties in leader-

member relationships, negatively influenced IWB. Although emotions are critical in interpersonal dynamics (Xie & Zhang, 2012), the negative impact of affect on IWB may stem from cultural factors in Nepal, where emotional attachments can discourage challenging existing processes and traditional practices.

To the best of the researcher's knowledge, this study is among the first to investigate the LMX theory and its impact on employees' innovative work behavior in the Nepalese context. The findings underscore the importance of maintaining high-quality exchange relationships between leaders and employees, supporting previous studies that advocate for enhancing LMX to foster innovation.

Conclusion

In today's volatile and competitive business environment, particularly within the rapidly growing IT sector, organizations must continually generate new ideas, products, and technologies to ensure sustainability. Employees are crucial sources of innovation, making it essential for managers and leaders to foster a creative atmosphere by providing a supportive work environment and nurturing quality relationships.

The primary objective of this study was to examine the impact of LMX quality on employees' innovative work behavior (IWB) in the IT sector. The research revealed that the overall quality of LMX in Kathmandu's IT sector is perceived as moderately sound. Notably, LMX quality significantly predicts employees' IWB. Among the four LMX dimensions, loyalty and professional respect had significant positive impacts, while affect exhibited a negative influence, albeit not significant. Professional respect emerged as the strongest factor influencing IWB.

In conclusion, employees with higher-quality relationships with their supervisors reported greater confidence in their creative capabilities, which in turn led to increased innovative behavior. To enhance this dynamic, leaders in the IT sector should be more responsive and empathetic, creating a supportive environment that encourages employees to advocate for and implement innovative ideas. A proper mix of LMX dimensions is essential for boosting employees' innovative work behaviors, ultimately driving organizational innovation and sustainability.

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