

Placement of Shared Leadership in between Enterprise Resource Planning and Human Resource Management Implementation

Phuong Huu Tung,

Ha Noi University of Home Affairs, Hanoi City, Vietnam. E-mail: phuonghuutung@gmail.com

Abstract--- The study aimed to identify the placement of shared leadership in between Enterprise Resource Planning (ERP) and Human Resource Management (HRM) implementation. The following study is mainly characterized with the quantitative research design which has been selected considering the nature of the study. The present study is focused towards assessing the mediating effect of shared leadership in between ERP and HRM implementation. In this manner, the researcher has used positivism philosophy of the research along with the deductive approach which assisted the research in data collection and carrying out analysis. The questionnaire is distributed to 348 sample size to get the respondents. The results has revealed that the overall influence of shared leadership in between ERP and HRM implementation was identified to be significant. However, there was partial mediation in terms of leadership types, characteristics of leadership with respect to HRM implementation. The following study has identified the placement of shared leadership in between HRM and ERP in the manufacturing sector of Vietnam. Moreover, there were certain limitations on this study which can be taken into consideration by the future researchers.

Keywords--- Shared Leadership, ERP, HRM Implementation, Vietnam.

I. Introduction

The upgradation at the contemporary business market is altering the roles of all the departments. Same has been experienced in the context of human resource management and team formation. In correspondence, teams are widely being considered as crucial determinant of upgrade tasks (Solomon, 2019). Same has been expected when the organizations tend to install technological assistance at the workplace. For instance, tremendous information systems are being integrated at the operational units of recent organizations. These information systems are implanted to assist the employees in their operational activities. Contrastingly, employees consider them as a negative change that results in resistance and failure of induced information technology at the workplace. In response, the role of leaders is observed to be critical in educating the employees about benefits of new change with reference to technological support. However, it becomes crucial for a single leader to persuade the behaviour of the entire organisation. Therefore, the concepts of shared-leadership are established under which a team of leaders share the responsibility of changing the employees' behaviour. In this regard, the following study has been formulated to determine the importance of shared leadership in ERP and HRM implementation in the context of high-tech organisations.

Human resource has been a critical component of every business. In addition, the traditional human resource practices are upgraded with induction of technology as a result Human Resource Management System (HRMS) has been established. This technological system makes the human resource processes easier and more accurate by minimizing the human error. Similarly, other forms of information systems such as Enterprise Resource Planning (ERP) are developed to assist the firms in management of their supply chain and customer relations (Galli, 2019). Both of the information systems are redesigned for assisting the firms and smoothing their operational activities. Under this regard, the HRMS is centric to human management practices only whilst customer service and supply chain is backed up by the ERP information system (Hoch and Dulebohn, 2013; McCleskey, 2018). Consequently, the management of contemporary businesses are obliged to operate with both the systems for an effective management. The implementation of both the software is multidimensional with respect to their outcomes at the organisation. For instance, HRMS is more widely successful as it outlines limited exposure of software at the organisation. On the other hand, businesses encounter extensive risks while implementing ERP. Altogether, it becomes critical for the businesses to extract an effective implementation and outcome from both the information systems (Seo, 2013).

Therefore, a middle way is obligatory to be inaugurated by the firms to enlist effective measures for inducing success with technological upgradation. This is why the concept of shared leadership is placed to assist firms in enhancing the efficiency of information system adaptation. Shared leadership reflect formation of a team rather than allotment of a single leader for leading the entire organisation. Furthermore, the companies in Vietnam are considered to be as the huge investment opportunity as the country has gained long-term success in the East Asian countries and hence it required effective management of the resources which also includes employees (Wee, 2017). Furthermore, the economists in Vietnam has also explored that the reason for the sudden growth in the economy was based on the FDI along with the young educated population. Since the economic condition in the country is increasing, this is the reason that companies are likely to expand and invest in already existing companies present in

Vietnam. For this purpose, it is necessary that the companies should implement strong leadership and software implementation which can improve the HRM process within the companies. In this regard, the role of shared leadership is quite crucial as it tends to deliver appropriate measure of practice to boost the productivity of information software. This is the point that has been critically evaluated in the current study.

To study and evaluate the concept and significance of shared leadership.

To evaluate the importance of ERP and HRM implementation.

To assess the placement of shared leadership in between ERP and HRM implementation.

II. Literature Review

Leadership is determined as act of steering the employees and redirecting them towards a common goal. In this regard, the leader is considered as the personnel that govern whilst the people are termed as followers. Many researchers have been performed to evaluate the role of leadership on the productivity of employees. For instance, McCleskey (2018) investigated the relationship of leaders and organisational performance. The author figured out that organisational performance is positively and significantly related to the leadership style adopted and practiced at the organisation. Similarly, Galli (2019) evaluated the role of a leader and manager in developing the people. The authors figured out that leaders yield productive workforce that in turn formulate a competitive edge for the organisation whilst manager are limited towards enhance productive activities only. In addition to management and leadership, a third concept of shared leadership has been recently embedded in the contemporary business world. Shared leadership is a broader distribution of leadership roles and responsibilities among a team to lead the entire organisation (Hoch and Dulebohn, 2013). In simple words, no single leader is responsible for redirecting the organisation, instead, leaders from different departments are allotted for this role.

It has been outlined from the literature that HRMS and ERP are considered to be a crucial addition to the businesses. It is because, HRMS upgrade traditional processes of HRM that initially becomes difficult for adaptation (D'Innocenzo et al., 2016). However, Sweeney et al. (2019) argued that HRMS proves to be a positive addition to the businesses in the context of long-term. In contrast to this, ERP is criticized with higher rate of failure. In support, Chiu et al. (2016) claimed that ERP implementation are quite complex and encounter resistance among the employees whilst HRMS is considered more user-friendly information software by Hoch and Dulebohn (2013). In this regard, already a debate has been outlined from the literature claiming the rate of failure and adaptability among HRMS and ERP. However, it has been also highlighted from the literature that efficiency of both the software is effectual with employee's tendency and adaptability towards the information system upgradation (Solomon, 2019; Brown, 2017; McCleskey, 2018). Practically, it has been observed from the studies of Zhu et al. (2018) that integration of operational practices with technological support positively influence the organisational performance and competitiveness. Therefore, wider organisations are intensely inclined towards the adaptation of technological support. However, as stated by Brown (2017), two power rebel one other, same is the case with ERP and HRMS. Simultaneous practice of both the information systems become critical for the organisation specially the one that deals with high tech products such as AMOS and PLS. Hence, this aspect is to be clarified so that a mutually beneficial outcome can be practiced.

Shared leadership is designed to cultivate the factors of self-awareness at different levels of organisation as claimed in the literature. Additionally, it has been highlighted from the studies of Seo (2013) that shared leadership gets establish when different partners are brought together to work on same grounds. Further, Sweeney et al. (2019) support the fact by claiming that self-awareness among the leaders gets boosted when they have to work with other leaders as intense exchange of knowledge is experienced among them. However, it is quite difficult for different leaders to act in a collaborative manner as every new team undergoes into challenges of conflicts. At the beginning, all the team has to identify contrasting and coinciding elements of their leadership style. Later on, the team learns to develop a collaboration and practice effectual measures to redirect the organisation in the best possible way. Hence, identification of self-awareness factors becomes crucial for the leaders at the beginning that create another form of challenge for the firm. In response, the organisation has to monitor this aspect as well.

In association to effective management and leading strategies, the team of shared leaders exhibit a strong sense of commitment with the firm. As highlighted by Solomon (2019), different leaders work together the betterment of their firm. In doing so, the leaders let go their personal interests for the sake of organisation (Cook et al., 2019). Same has been supported by Chiu et al. (2016) with the fact that effective leaders cultivate an upgrade version of themselves through their leading strategies. In this regard, a group of leaders would result in massive production of effective workforce. This ultimately will become effectual for the organisation in a positive manner.

The reviewed literature represents a picture of shared-leadership indicating that leaders play critical role in change implementation at every organisation. However, the literature also reflects certain gaps that are not left unattended by the analysts. At first, the importance of shared-leadership in both HRM and ERP implementation is not highlighted. In contrast to this, it is defined that shared-leadership play crucial role in adaptation of ERP and

HRM practices. Similarly, the literature reflects that leaders share responsibilities of leading their followers, but there is no explanation of hurdles that are encountered during the formation of the leading team. Moreover, the role of leadership style is also not analysed by the studies done so far. Therefore, this study has proposed a comprehensive conceptual framework to exhibit the role of self-awareness, types of leadership and characteristic of the leading team in development of synergetic shared- leadership. Moreover, the central concern of the current study is on the importance of shared-leadership in ERP and HRM implementation.

Theoretical Framework

The frequency of failure of ERP has been relatively higher than other information systems. Based on this fact, many researches are conducted to enlist the failure causes of ERP and address these issues (Seo, 2013). In response, the role of human behaviour has been highlighted as the most influential factor that shape up the adaptation of ERP practices at the workplace (D'Innocenzo et al., 2016; McCleskey, 2018). Practically, the behavioural theory has been employed by a set of researchers to determine the role of human behaviour in multiplying the effects of ERP installation at a workplace (Solomon, 2019). The behavioural theory suggests that an individual adapts a certain behaviour that is acceptable by him/her and thus the attitude of that individual towards the procedure is also shaped in the same manner. In addition to this, the theory of shared leadership has been formulated that indicates, leaders share responsibilities to lead an entire community. In extension, these responsibilities are shaped up by leadership styles and characteristics of the team of leaders. Therefore, it is important to consider the characteristics and leadership styles of leader while executing the theory of shared leadership along with principles of behavioural theory.

Same has been determined by the adaptation of technology at the human resource management practices. In this regard, many researchers have outlined the fact that human resource practices are vulnerable to biased outcomes and decisions due to human error. However, the integration of information software in the practices of HRM has made it easier for the management to track the performances of their employee, reward them, compensate accordingly (Brown, 2017). This shift in the traditional HRM and upgraded HRMS is a result of acceptance among the people in the department. According to the behavioural theory, people at the HRM department indicate a positive attitude towards HRMS this in turn becomes easily adaptable among the organisation. Moreover, adaptability of HRMS also results in effective and efficient measures of HRM practices as they tend to quickly learn and mould their practices according to the information system. In contrast to this, the employees find it difficult to shift their traditional practices of supply chain and customer relation to ERP. This is because, in most of the cases, employees see ERP as a difficult adaptation that alters their performance as the employees are enforced to learn new measures of operations. Consequently, employees indicate a negative attitude towards ERP that in turn results in failure of the system.

To prevent all these issues, it is essential for the management to educate and shape the attitude of their employees towards the new integration in the business. This is made possible by a team of leaders that are allotted with responsibility to educate the employees about benefits of ERP adaptation and disseminate the fact that this information system is set to ease their traditional operational activities. According to the behavioural theory, this is the most crucial use of shared leadership that it can change the attitude and behaviour of employees towards adaptation of information system.

Conceptual Model

From the literature, many factors are highlighted that assist in shaping a shared-leadership in any organisation. However, as this study is centric towards the role of shared leadership in adaptation of HRMS and ERP, three critical factors are highlighted namely; self-awareness, types of leadership and characteristics of the leading team. In simple words, it has been determined that higher rate of self-awareness among the leaders results in collaborative team. Secondly, shared-leadership becomes comprehensive with wider types of leaders in the team. Eventually, the characteristics of the entire team is important to shape synergetic force that in turn directs the entire organisation in an effective manner. Altogether, these factors give rise to wide-ranging shared-leadership that in turn boost the outcome of ERP and HRMS. On these grounds, the following hypothesis are formulated;

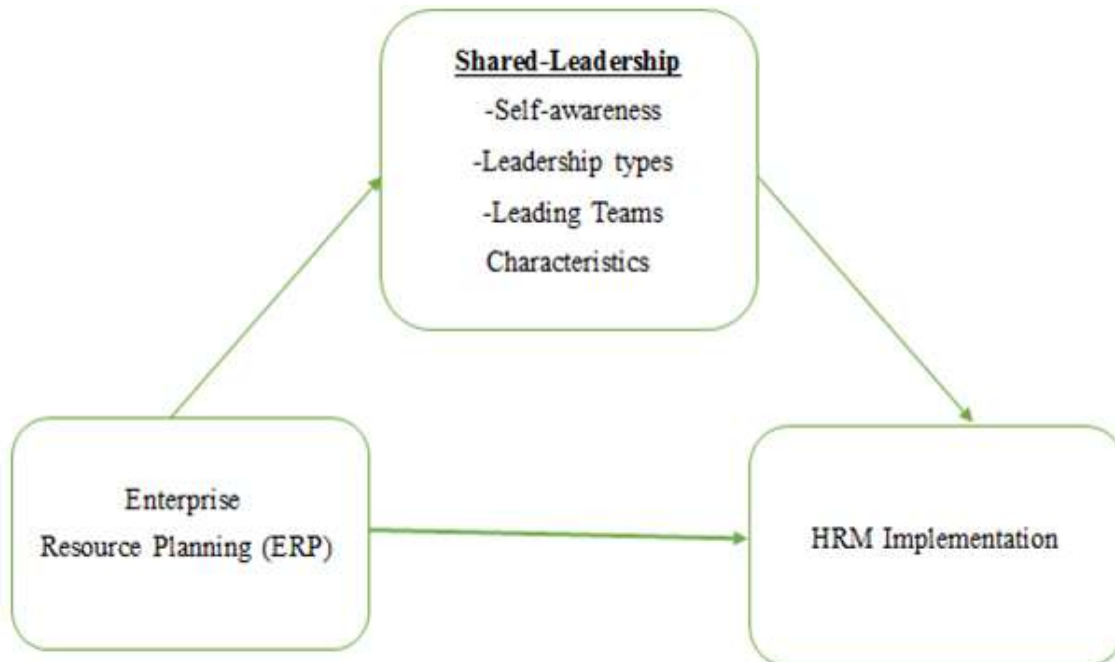


Fig. 1: Hypothesis Formulated

H1: The self-awareness mediates the relation between Enterprise Resource Planning and HRM Implementation.

H2: Leadership Types mediates the relation between Enterprise Resource Planning and HRM Implementation.

H3: Leading Teams Characteristics mediates the relation between Enterprise Resource Planning and HRM Implementation.

H4: The enterprise resource planning significantly influence HRM Implementation.

III. Methodology

Research Design and Data Collection Process

The following study is mainly characterised with the quantitative research design which has been selected considering the nature of the study. The present study is focused towards assessing the mediating effect of shared leadership in between ERP and HRM implementation. In this manner, the researcher has used positivism philosophy of the research along with the deductive approach which assisted the research in data collection and carrying out analysis. Furthermore, the primary method of data collection has been adopted in which the researcher has gathered data through survey questionnaire which was based on 5-point Likert scale ranging from strongly disagree to agree. In addition to the above statement, the data has been collected with the employees and managers working in the manufacturing sector of Vietnam. For the purpose of approaching the participants, the researcher utilised different platforms where questionnaires were distributed that mainly includes emails, social media platforms along with the physical distribution of the questionnaires so that higher response rate can be achieved.

Sampling Technique and Sample Size

The current study mainly focused on the placement of shared leadership in between ERP and HRM implementation, therefore, the managers and employees who are working in the manufacturing sector of Vietnam were approached for the filling out of questionnaire. For carrying out data collection procedure. The researcher adopted purposive sampling technique which is known as the non-probability sampling technique because the immediate targeted respondents were employees and managers of manufacturing sector of Vietnam and it was difficult to gather respondents from large sample size. In this context, a total of 400 respondents were approached specifically the managers and employees who are working in the manufacturing sector of Vietnam and out of which 348 responses were gathered and hence the response rate was estimated at 91% which assured the reliability and authenticity of the results.

Data Analysis Technique

For the purpose of analysing the data results, the researcher has opted for Structural Equation Modelling (SEM) in which path analysis along with the CFA (Confirmatory Factor Analysis) have been conducted. These techniques have been employed in order to check validity and reliability of the data constructs used for this research. In continuation of this, a blindfolding technique has also been used for carrying out the results in which predictive

relevance of the model has been assessed with the effective use of Q square. In addition to the above statement, the quality of the model was also assessed where the values of R-square and adjusted R-Square were taken into consideration. These tests have been carried out on Smart PLS which assisted the research on the testing and clarifying the measuring model of the study.

IV. Results

Measurement Model-partial Least Square Algorithm (PLS)

As already highlighted above, the following study is being aimed towards assessing the mediating role of shared leadership in between ERP and HRM implementation and for this essence, the SEM technique has been used for the data collection and analysing the findings with the help of hypothesis testing. In accordance with the study carried out by Wong (2013), the SEM technique is distinctive because of its unique features and robustness while analysing the responses of the survey. The major section of the analysis through SEM is mainly dependent on the path assessment and factor analysis. The study carried out by Brown (2012) has highlighted that in the SEM, the factors analysis is mainly supported with the confirmatory factor analysis (CFA) along with the exploratory factor analysis (EFA). Moreover, in the current study, the researcher has focused towards executing CFA in light of comprehending the factors which are mainly involved in the research model. However, as per the findings of the study carried out by Afthanorhan (2013), it has been proclaimed that there are certain measures of statistics which help in validating and comprehending the constructions. In this context, the researcher has suggested that the level of the factor loading, composite reliability, convergent validity and discriminant validity helps in validating the constructs used in the study.

In light of the findings carried out by Yong (2013), it has been highlighted that factor loading is regarded as the statistical measure which eventually helps in determining the correlation between the latent and constructs. In addition, the measures with the threshold of 0.6 are suggested that the research construct can be explained by the latent variable. Here, the lowest value for the Cronbach Alpha is estimated at 0.731 which reflects that the value is about the suggested threshold which implies that variables can be explained with the latent variable. In case of composite reliability, the lowest value estimated is 0.831 and for the AVE, the lowest value estimated is at 0.626 which implies that the variables can be explained through the latent variable. However, there was one indicator [LT1] which has been dropped from the Leadership Types [LT] because of the low factor loading and this eventually resulted in the increase of reliability of the latent construct. Hence, the researcher has computed the final model with the omission of the variable.

Table 1: Reliability Testing

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
ERP	0.837	0.902	0.754
HRM Implementation	0.925	0.953	0.871
Leadership Types	0.888	0.947	0.899
Leading Team Characteristics	0.736	0.850	0.659
Self-Awareness	0.731	0.831	0.626

With respect to the evaluation and determination of convergent validity and reliability, it is also necessary for the researchers to significantly identify the variables distinctiveness which is based on the validity and reliability of the study (Ahram, Karwowski and Taiar, 2018). For the purpose of assessing the discriminant validity of the research, the researcher has used HTMT ratio which is mainly utilised for the purpose of determining and assessing whether the variables which has been selected for the study are distinct or not. In this case, the maximum acceptable value for the HTMT is 0.85 which can be observed in the most conservative criteria for the study. Hence, in the table presented below, it can be observed that the values are mostly not exceeding the maximum acceptable value which eventually suggests that the variables can be utilised further for the path analysis as the maximum value which is computed is estimated at 0.933.

Table 2: Discriminant Validity Using HTMT Ratio

	ERP	HRM Implementation	Leadership Types	Leading Team Characteristics	Self-Awareness
ERP	0.868				
HRM Implementation	0.596	0.933			
Leadership Types	0.341	0.675	0.948		
Leading	0.372	0.299	0.201	0.812	

TeamCharacteristics					
Self-Awareness	0.341	0.274	0.185	0.397	0.791

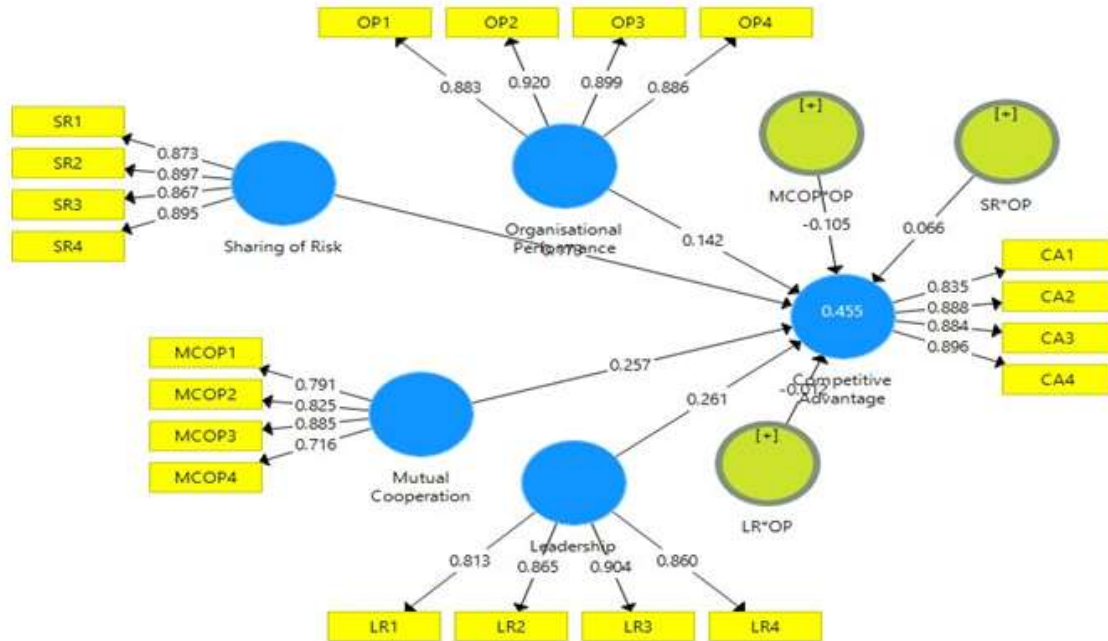


Fig. 2: Measurement Model

Path Assessment

After carrying out the assessment regarding the model measurement which eventually assists in the determination of reliability and validity of the latent factors and constructs, the main model for the SEM has been utilised by the researcher for the purpose of testing hypothesis and significance of the variables. In this context, the bootstrapping has been utilised by the researcher for the purpose of testing and assessing the significance of the study. In light of the study conducted by Hair et al., (2016), the bootstrapping is mainly regarded as the process for resampling and subsampling the determination of the significance. Based on the findings presented in the table, it can be assessed that the ERP has a strong influence on the HRM Implementation which is identified to be significant as $B = 0.394, P = 0.000 < 0.05$ at 5% threshold level. Moreover, the ERP has also a strong influence on the leadership types as the coefficient value, $B = 0.341$ and $P = 0.000 < 0.05$ at 5% threshold level. In addition to the findings, the table further reveals that ERP has a positive and significant relation with the leading team characteristics as $B = 0.372$ and $P = 0.000 < 0.05$ which is evaluated at 5% threshold level. Furthermore, the findings further revealed that leadership types has a significant influence on the HRM implementation as $B = 0.528, P = 0.000 < 0.05$ which is evaluated at 5% threshold level. However, only two of the constructs were identified as insignificant as leading team characteristics on HRM Implementation as $B = 0.034, P = 0.407 > 0.05$ which is estimated at 5% threshold level. Mostly, the findings of the study are significant and positive which evaluate the mediating relation of shared leadership between ERP and HRM Implementation.

Table 3: Path Analysis

	Coefficients	T Statistics	P Values
ERP ->HRM Implementation	0.394	7.837	0.000
ERP ->Leadership Types	0.341	7.755	0.000
ERP->Leading Team Characteristics	0.372	6.558	0.000
ERP ->Self-Awareness	0.341	7.875	0.000
Leadership Types->HRM Implementation	0.528	13.692	0.000
Leading Team Characteristics->HRM Implementation	0.034	0.829	0.407
Self-Awareness->HRM Implementation	0.027	0.673	0.501

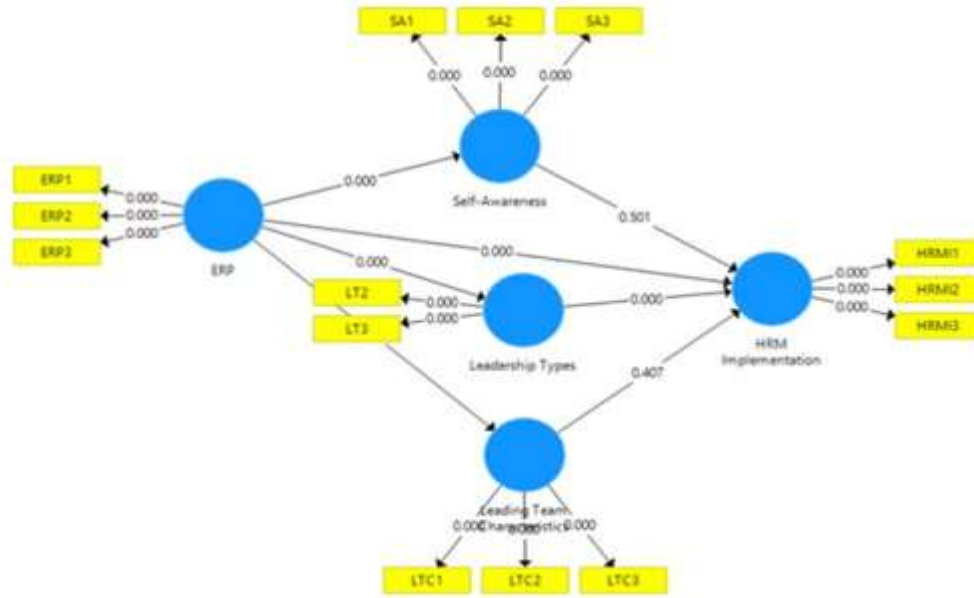


Fig. 3: Bootstrapping with p-values

The table presented below explains the total effects of the variables which are taken for this study. Based on the findings of the study, it can be identified that the re-issignificant influence of ERP on HRM Implementation as $B=0.596$, $P=0.000 < 0.05$ which is evaluated on the basis of 5% threshold level. In addition, the ERP implementation has a strong influence on the leadership types as the $B=.342$, $P=0.000 < 0.5$. Except for the two relations which are leading team characteristics and HRM implementation, and self-awareness with respect to HRM implementation.

Table 4: Total Effects

	Co-efficient	T Statistics	P Values
ERP->HRM Implementation	0.596	15.093	0.000
ERP->Leadership Types	0.341	7.755	0.000
ERP->Leading Team Characteristics	0.372	6.558	0.000
ERP->Self-Awareness	0.341	7.875	0.000
Leadership Types → HRM Implementation	0.528	13.692	0.000
Leading Team Characteristics->HRM Implementation	0.034	0.829	0.407
Self-Awareness Implementation → HRM	0.027	0.673	0.501

Quality Criterion of the Model and Predictive Relevance

In order to carry out the quality criterion, the researcher has carried out measurement model analysis along with the path analysis. For this purpose, it is necessary that the research should evaluate the predictive relevance and quality of the model. For this purpose, it can be argued that by the study of Miller (2014) that adjusted R-square and R-Squared mainly assists in the evaluation of the quality of mode. In this respect, the results which are portrayed in the table below explain the significance of the variance in different factors for the shared leadership and its relation with the ERP and HRM implementation. Moreover, from the results presented in the table below it can be assessed that HRM implementation R-square is estimated 0.610 where the adjusted R-square is estimated at 0.606. Moreover, the leadership types have r-square of 0.116 and adjusted r-square is evaluated at 0.114. In addition to the above statement, the leading team characteristics R-square is evaluated at 0.139 with the adjusted R-square of 0.136 which predicts that the study holds predictive relevance of the study constructs.

Table 5: Quality Assessment of the Model

	RSquare	RSquare Adjusted
HRM Implementation	0.610	0.606
Leadership Types	0.116	0.114

LeadingTeamCharacteristics	0.139	0.136
Self-Awareness	0.116	0.114

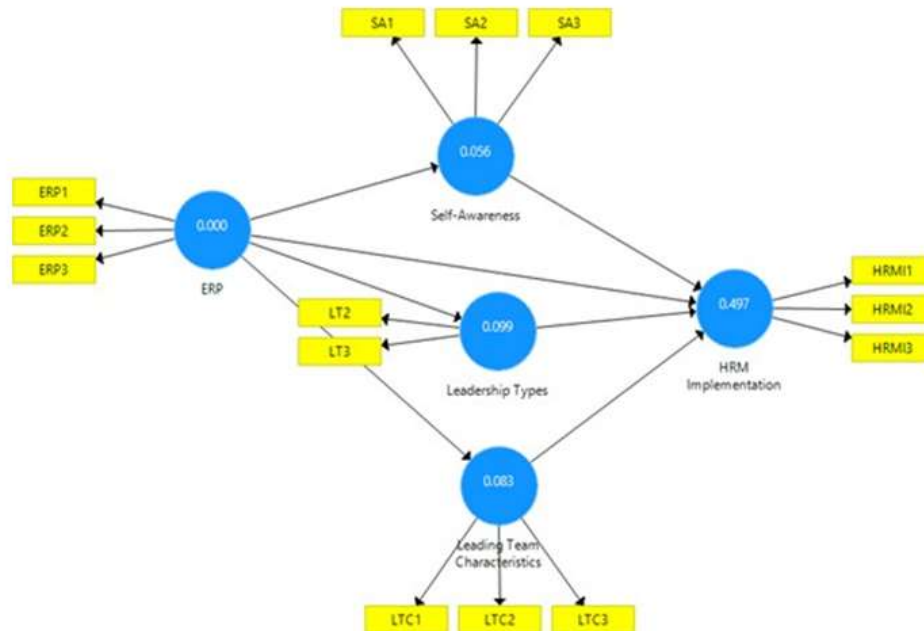


Figure 4: Blindfolding of Model

Summary of Hypotheses

Table 6: Table of Hypotheses Assessment Summary

Propositions	Decision
H1: The self-awareness mediates the relation between Enterprise Resource Planning and HRM Implementation	Accepted
H2: Leadership Types mediates the relation between Enterprise Resource Planning and HRM Implementation	Accepted
H3: Leading Teams Characteristics mediates the relation between Enterprise Resource Planning and HRM Implementation	Rejected
H4: The enterprise resource planning significantly influence HRM Implementation	Accepted

V. Discussion

The present study is focused towards assessing the placement of shared leadership in between ERP and HRM implementation in the context of manufacturing industry of Vietnam. In this context, the research design which has been opted for this study is the quantitative research where the analysis has been carried out with the support of path assessment and measurement model on Smart PLS. In addition to the above statement, the factors pertaining to the shared leadership included leadership types, leader's characteristics and self-awareness. Based on the analysis carried out in the study, it has been assessed leadership types, self-awareness, leader's characters have partial placement between ERP and HRM implementation. On the other hand, the other variables like HRM and ERP implementation has a direct and positive relation. Conclusively, the overall effect of shared leadership is significant in between HRM implementation and ERP.

VI. Limitations and Future Research

The following study has identified the placement of shared leadership in between HRM and ERP in the manufacturing sector of Vietnam. Moreover, there were certain limitations on this study which can be taken into consideration by the future researchers. Firstly, the researchers could adopt qualitative study where interviews can be taken in the manufacturing sector managers of Vietnam. Secondly, a contrasting study can be carried out with respect to two industries of Vietnam and then their shared leadership values can be compared.

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