



Transformative Interaction Capability on Teamwork Performance: Strategies or Challenges? Perspective On Merchant Marine College

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ABSTRACT

This study aims to build a new conceptual model based on the novelty produced by previous researchers called Transformative Interaction capability. Transformative interaction capabilities are expected to resolve the results of research between frequent and team performance. Structural study methodology was adopted in this study and a sample of 260 samples was taken from analysis units spread throughout Indonesia as a Merchant marine college. Data collection was carried out using a questionnaire and data analysis was carried out using Amos 25. The findings in this study indicate that there is a strategic path to improve the performance of the public organization team at the Merchant marine College. There are two ways to improve team performance. The strategy includes transformative interaction capabilities to improve team performance. The results of this study bring benefits for theoretical and practical development.

INTRODUCTION

In the age of globalization and the advancing industrial revolution, competition among various public organizations is a necessity. As a result, these organizations

are forced to comprehend the increasing consumer preferences. Recent decades have seen a shift from a traditional focus on performance improvement to a focus on employee competencies that have a major impact on team performance. Teams are now expected to produce complex and flexible competencies in order to work effectively in teams and anticipate and adapt to change (Brzeziński & Bąk, 2015). Based on this assumption, effective organisational adaptation is expected to motivate Teams to work proactively to respond to changes that occur in the organisational environment. Organizations are composed of diverse individuals and teams. They are surrounded by complex competitive environments that are subject to rapid change. This competitive environment requires a comprehensive approach from organizational managers (Meneghel et al., 2016) to achieve the desired results set for the operationalization of organizational goals.

The achievement of these goals has a number of requirements that must be met, including the development of a constructive, efficient, and appropriate response to change. If there is a cognitive understanding of the process by team members, then there must be an emphasis on the importance of knowledge. In order to improve team performance, team members need to understand that knowledge can be seen as an independent level of a concept. Ethics is a process of sharing knowledge, including the documentation of a portfolio of experiences among members, this will be able to have an impact on improving team performance in an optimal way. When this is done extensively, when knowledge sharing is undertaken by team members, it will indirectly be able to realize work effectively within the organization (Chang & Chen, 2011; Widiatmaka et al., 2023). It is expected that the ways and methods of understanding organisational concepts will be improved when undertaking a work process that is considered a learning experience for team members.

This improvement will enable team members to perform actions accurately in line with the organisation's goals, and when team members achieve this, it will result in a cognitive process that will positively affect team collaboration. Direct involvement of team members is necessary to ensure interest, responsibility, motivation and responsiveness, thus supporting an optimal work process characterised by a caring spirit and inspiration. The concept of sharing knowledge has established itself as a well-recognised driver of team performance. Previous research has provided an academic critique that focuses on the central role played by sharing knowledge, which can be seen as a cross between individual and team working. This acts as a medium to identify the creation of new knowledge, and can increase core working capacity when an organization faces an issue. Various issue resolution tasks can be better handled through knowledge sharing. According to (Qamari et al., 2019), the sharing of knowledge can provide

a means to understand the goals and to act in a quick manner when trying to achieve them.

In addition, it is conceptualised as an efficient enterprise-wide knowledge sharing activity, initiated by team members who are capable of detecting and curating new knowledge. A number of previous studies have highlighted the debate about the inconsistency of the research findings, such as those conducted by (Han & Beyerlein, 2016; Park & Lee, 2014; Tung & Chang, 2011). The findings demonstrate the positive impact of sharing knowledge on researching as a team. This has been demonstrated by both academic and practitioner researchers. The impact of shared values on team performance has not been comprehensively investigated and is in need of further research, as this oversight not only has implications for team performance, but also limits the potential for organisational improvement.

The aim of our research is to address this gap by providing a scientific rationale for the improvement of team performance through a better understanding of the relationship between shared values and performance. To address the existing gap in this research, we propose a new concept that has been identified by previous researchers: the transformational interaction capacity discovered by (Qamari et al., 2019). The concept of interaction involves the ability to work together and improve the personal development of team members with the aim of increasing organisational value through the strengthening of diverse ideas, the provision of complementary competencies for forward-looking knowledge development, and active engagement in learning and new competencies. Through the production of integrated knowledge, this approach may lead to a positive impact on team performance (Qamari et al., 2019). This study provides new concepts discovered by previous researchers with an academic confirmation and establishes a common ground. By constructing a new empirical research model, this study aims to establish the concept and improve team performance based on transformative interaction capabilities.

The aim of this study is to create a new conceptual model and to present and analyse the results of the research in the public institutions involved in the education sector in the Maritime Commerce Colleges under the jurisdiction of the Ministry of Transport in Indonesia. The selection of this object of research is based on a number of basic assumptions. Public sector organisations are those whose performance cannot be measured by outcomes alone, and perceptions are used as a benchmark to assess their effectiveness. Abbreviations are explained when first used, and professional vocabulary is used where it conveys a more precise meaning. In the evaluation of the performance of public sector organisations, particularly in the field of education, the emphasis is on outcomes rather than outputs, and the perception of the service user community is an important indicator of the effectiveness of the service. If the perceptions of the service user community of this public sector organisation are holistically combined with the

outputs of the organisation, the result will be an outcome that demonstrates the performance of public sector organisations in real terms. This study presents the findings in relation to the performance of public sector organisations. Public sector organisations, particularly those in the education sector, and more specifically in the Department of Transport's Vocational Education and Training (VET) sector, are faced with the challenge of achieving expected outcomes rather than just achievable ones.

How well these organisations perform is determined by the various ways in which the public perceives and responds. A comprehensive understanding of this issue, involving external stakeholders such as the community and internal stakeholders such as the management of public organisations, is required, particularly in the field of education. This study aims to improve team performance in public organisations in the education sector by presenting the concept of sharing knowledge alongside other essential concepts such as adapting to technological advances, in keeping with (Maurer & Weiss, 2010) perspective that learning will always deliver critical outcomes for professional success. How can merchant marine college improve their team performance in a successful manner? What factors contribute to the success of merchant marine college? The purpose of this study is to explore these questions by investigating the mediating role of the variable of transformative interaction capability and model will be tested in merchant marine college under the Human Resources Development Agency (BPSDM transport) .

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Knowledge Sharing and Transformative Interaction Capability

Ability of the researcher to be an antecedent to increasing the consequences of organizational performance. This study aroused the interest of researchers at both undergraduate and practitioner level to undertake a detailed study of the role of knowledge sharing. This research aims to enhance the significance of knowledge sharing in advancing organizational performance in a professional capacity. Empirical studies conducted by several researchers have demonstrated the effectiveness of knowledge sharing in enhancing organisational performance. (Aubke et al., 2014; Qamari et.al, 2019; Mueller, 2014; Nesheim & Hunskaar, 2015) have highlighted the importance of knowledge sharing among team members. Yet, the benefits of innovative tools in improving team performance are not always clear. Qamari et.al, 2019 have argued that better organisational performance can be achieved through knowledge sharing, although they warn against relying too much on innovative tools as a solution. An integral part of improving organisational performance is the process of sharing knowledge, which is observed through interactions between members of the organisation, and this process is heavily influenced by multiple factors such

as motivating attitudes, skills and knowledge itself (Dian et al., 2022; Matošková & Směšná, 2017). The sharing of knowledge among team members provides valuable lessons for the improvement of organisational effectiveness. It is driven by an output-oriented approach and the need for objective transparency, which refers to the ability of team members to facilitate interactions. transparency (Mueller, 2014). This study introduces the concept of 'transformative interaction capability', proposed by (Qamari et al., 2019). This study is still working on a comprehensive definition for the concept due to its recent discovery, but it has clear implications for effective team collaboration.

The presence of this interaction can lead to empowerment, increased personal capacity and benefits for other members of the organisation. Furthermore, this interaction fosters value-adding ideas for the organisation, demonstrating sensemaking performance through transformative learning and knowledge creation. This assertion suggests that transformative interaction can enhance the overall performance of the sensemaking team. Sensemaking is regulated as a process of transforming the current situation into one that can be explicitly understood using different terminologies, ultimately facilitating action (Weick, 2020). In addition, the inclusion of transformative learning must be considered, since transformative learning aims to create new knowledge and practices related to continuous learning. The need for this particular type of education is growing, as it is required by individuals in corporate teams and various communities that form part of advanced learning institutions consisting of cognitive, social and emotional components. It involves a framework that focuses on problem-solving perspectives and on the importance for individuals and teams to be free to think in different ways.

The text proposes a set of arguments and expectations that are inclusive, open, reflective and discriminatory. Previous research has shown that reformative learning can provide permanent rules for processes that influence individuals' conceptualisations of their interactions with organisations and environments (Hoggan, 2016; Pambudi Widiatmaka et al., 2023).

Informative learning, as asserted by various futuristic indicators and active learning assumptions, can be identified as a profession for measuring transformative learning. Knowledge creation can fill knowledge gaps in organizations or working groups within a unit. Knowledge creation can occur through various transformations, which are expected to provide a basis for building and forming relationships between different forms of knowledge. Moving away from these assumptions is crucial for strengthening the knowledge creation process and improving organisational performance. The development of knowledge and new competencies through collaboration can improve knowledge integration. The exchange of knowledge between team members can influence and help each other in achieving organisational goals. As a result, the creation of

transformative learning, the creation of knowledge and the promotion of meaning in team work will be enhanced. It is not only expected that he will be able to generate various ideas. It is also expected that he will be able to provide a form of tendency in the understanding of the working behaviour and thought processes of the team members, because he will be able to create a concept of transformation in their ability to interact. Based on this description, the following hypothesis can be drawn

H1: Knowledge sharing is positively affects transformative interaction capability.

Transformative Interaction Capability and Teamwork Performance

A team is commonly defined as a group of individuals formed from a unit of two or more people. The team is assigned various tasks or functions, and they work dynamically and interdependently to achieve the general mission of an organization, adapting as necessary to achieve the goals. It should be noted that while the vision of the organization is often discussed, the concept of mission is not as widely recognized (Savelsbergh et al., 2010). A team can be formed through interrelated actions, emotions and cognitive processes among its members to achieve common organisational goals. Members are expected to contribute their work load to the team and work together to facilitate coordination, adaptive performance and task goals that generate value added (Jundt et al., 2015; Salas et al., 2005).

The team is expected to deliver optimal outcomes as a demonstration of the organisation's commitment to high quality standards (Krajcsák, 2018). Previous academic studies have dealt with the identification of the types of teams and the relevance of these. However, the implementation of the tasks performed by the team should be the main focus to ensure that the team achieves effectiveness.

The team can only be considered effective when it can meet and exceed team demands (Hoggan, 2016; Jambekar & Pelc, 2007) has presented a scholarly discussion on transformative interaction, as have previous researchers. This concept refers to a process that is expected to lead to significant change and is not changeable through an individual's interaction, experience and conception of themselves within their environment (Hoggan, 2016). Learning mutual participation requires individuals in a team or group to engage in an activity. Completing tasks on time is important for achieving goals and optimal work completion, and organisations can facilitate this by completing tasks owned by team members (Qamari et al., 2019). This has the potential to have an impact on team performance. Thus, the following hypothesis can be derived:

H2 : Transformative Interaction Capability Positively Affects Teamwork Performance.

Transformative Interaction Capability, Adaptability to technological change ,
Teamwork Performance.

The group can be seen as an entity that involves individuals in various activities of acquiring, fusing and disseminating knowledge. Knowledge sharing occurs through the mutual sharing of knowledge, which results in explicit and tacit modification of knowledge of knowledge that results from the collaborative effort (Argote, 2011). As the learning capacity of the team can be extended, it is expected that its ability to adapt to change will be rapid. This can be achieved through the use of a variety of skills and knowledge, and the integration of new behaviours, resulting in a coherent and efficient unit. These assumptions allow us to gain a comprehensive understanding that the current cycle will have a lasting effect, which includes the recognition of different learning needs. The concept of readiness to learn and the process of learning is believed to have practical uses to improve different skills to adapt to technological progress.

The dominant factors that influence the success of Team when using information technology were identified in a study conducted by (Rozak et al., 2023). The data showed that Team' skills were used autonomously. Understanding these aspects, motivation is the only factor that can increase their efficiency in adapting to complex information technologies. They have the cognitive skills to be able to communicate through different digital technologies. They are also experienced in using digital technologies to improve their practical knowledge. The concept of adaptability has its origins in the resource-based theory, which is then mapped onto the theory of human capital. The latter theory places the central role of individual knowledge, skills and competencies (Chang & Chen, 2011; Gonzalez-Mulé et al., 2016). Human capital refers to the social attribute of individuals' competence in terms of both knowledge and personality, including creativity, manifested in various forms of work performance. Individual competencies are part of the core capabilities of a company and can be evaluated in the context of the significant challenges encountered, which influence the competencies of the workforce (Mandal et al., 2022).

Managers' competencies and skills can be viewed as organisational approaches to effectively achieve shared goals. In other words, the way in which leaders use their diverse competencies and skills to align with organisational goals is reflective of their common understanding of the purpose of the firm (Dragoni, 2005). Improving their skills in communicating, understanding, motivating and supporting colleagues, and adapting to internal and external changes in the organisation can lead to effective measurement of performance. In public service organisations, competitiveness is largely determined by technologies used. The provision of excellent service and the building of consumer confidence are of paramount importance (Musril et al., 2023). However, in order to achieve organisational goals, such as improving employee performance, it is important to review the ability of human resources to adapt to technological change. This review should be conducted from an objective perspective, taking into account

the importance of adapting to fairly progressive technological change (Jabbouri, 2016; Satata, 2021).

In this case, the product produced by the organization, a product formed through a touch of technology, can produce a form of product that has a good enough quality and has a low price (Satata, 2021). This provides the perspective that digital technologies, especially wireless technologies, have great significance in promoting various business benefits (Kristiyanti et al., 2024; Tofail et al., 2018). Investment in technology can provide positive information about a firm's performance in terms of the optimal achievement of organisational goals (Jabbouri, 2016). Based on the preceding arguments, we propose the following hypothesis:

H3: Transformative Interaction capability positively affects on adaptability to technological change.

H4: Adaptability to technological change positively affects teamwork performance.

Transformative interaction capability mediates knowledge sharing and teamwork performance

Within the organisation, Team are expected to communicate with each other. skills and knowledge and to consult with colleagues to facilitate learning. This process should improve effectiveness and efficiency within the company. The greater the knowledge, skills and expertise of Team, the better they can perform their tasks and reduce the chances of work defects. Optimum exchange of knowledge among Team can significantly enhance the ability of the team to promote transformative learning, knowledge generation and meaning making (Qamari et al., 2019).

Optimal learning occurs when working in teams, so it is important for teams to adapt to rapidly changing environments to maintain high performance, ultimately increasing team performance (Dess & Picken, 2000). This has empirical links to the transformational role of team performance (Patky, 2020; Widiatmaka et al., 2023). A transformational learning process can promote a wide range of improvements towards the achievement of team goals. The creation and use of knowledge are fundamental factors that contribute to transformational interaction skills. These in turn enhance team performance. Hence, based on these arguments, the following hypothesis can be suggested.

H5: Transformative interaction capability mediates the effect between knowledge sharing and teamwork performance.

METHODS

A study has been carried out on the protocols and practices of public managers and operational staff in training organisations under the Ministry of Maritime Affairs who collaborate on a project to develop a new product or service for their organisation, emphasising teamwork. The Marine Centre is home to 9 maritime colleges and is part of the Human Resources Development Agency (BPSDM transport). These comprise of Sekolah Tinggi Ilmu Pelayaran (STIP) Jakarta, Politeknik Ilmu Pelayaran (PIP) Semarang, PIP Makassar, Politeknik Pelayaran (Polteknip) Surabaya, Polteknip Banten, Polteknip Malahayati Aceh, Polteknip Sorong, Polteknip Padang, and Politeknik Transportasi Sungai Danau dan Penyebrangan (Poltektrans) Palembang.

Merchant marine college located in the same geographical area were selected as public organisations for this study. The study used pretesting to ensure questionnaire instrument validity and obtain accurate data. Questionnaires were distributed to 40 participants in order to assess the validity and reliability of the instrument used in this study. A total of 30 questionnaires were returned by respondents. The results indicate that a critical value of 30 degrees of freedom for correlation and an alpha value of 0.05 should be considered. The minimum guideline for declaring validity is 0.825. Cronbach's alpha test was used to test reliability. The minimum threshold for a valid result is 0.7. All of the variables were considered to be valid and reliable based on the measurement results obtained using the research instrument.

The study employed a purposive sampling technique using the concept of judgment sampling, with the leaders of the university and several operational staff selected as respondents. While 320 questionnaires were distributed, only 278 were returned; however, due to the involvement of a player, only 260 were used.

Table 1. Characteristic of respondents

No	Characteristic	Number	Percentage (%)
GENDER			
1	Male	158	60,1
2	Female	102	39,9
EDUCATION			
1	Diploma	46	17,6
2	Undergraduate	125	48,2
3	Postgraduate	69	34,2
JOB			
1	Strategic Staff	13	5
2	Supervisor	117	45
3	Manager	130	50
WORK EXPERIENCE			

1	<5 years	17	6,5
2	6–10 years	43	16
3	11–15 years	46	17,1
4	15-20 years	26	9
5	>21 years	138	51,4

Source: author's own research 2023

Data analysis and tests were carried out using Amos 25 software. In this study, a number of variable relationships were examined using the software. In addition, the Sobel test was used to assess the mediation effects of the transformative interaction ability variable. The validity and reliability tests provide information about the reliability of the constructs and the discriminant validity of each factor and construct. The construct reliability values, on average over 0.7, and the extraction variance values, over 0.5, indicate such findings. Furthermore, the discriminant validity values are over 0.7, as is the case with the discriminant validity. Finally, the KMO test (Kaiser Meyer-Ohlin) was used in the current study to assess the adequacy of the data and the results showed significance ($p < 0.0$).

Table 2. Standardized loading factor, composite reliability and average variance extract

	Item	Standard/ loading factor	Composite Reliability (CR)	AVE	KMO bartlet test
Knowledge sharing (Matošková & Směšná, 2017)	KS1	0.881	0.943	0.703	451.342**
	KS2	0.826			
	KS3	0.830			
	KS4	0.799			
Transformative Interaction Capability (Qamari et al., 2019)	TIC1	0.885	0.929	0.752	295.678**
	TIC2	0.892			
	TIC3	0.821			
	TIC4	0.884			
Adaptability to technological change . (Jabbouri, 2016; Satata, 2021)	ATC1	0.798	0.918	0.758	456.133**
	ATC2	0.883			
	ATC3	0.860			
	ATC4	0.879			
Teamwork Performance (Dess & Picken, 2000)	TP1	0.883	0.938	0.764	462.721**
	TP2	0.889			
	TP3	0.876			
	TP4	0.897			

Source: author's own research 2023

2. Line test results coefficient: knowledge sharing, transformative interaction capability, adaptability to technological change, employee performance

Measurement model testing

The results of AMOS 25 show that the value of the Chi-square statistic is 154.977. Therefore, the model is not a good fit as the Chi-square statistic is greater than that of the Chi-square table. As the Chi-square value is conservative and based on a large number of samples, it can lead to a Type II error (rejection of the correct model), so it may be worth considering examining alternative goodness of fit indexes (Hooper et al., 2008). However, as the sample size is larger than 200, the chi-square value can be disregarded. Other test results show that the CMIN/df of 1.763 indicates a good fit, the TLI/Tuckle Lewis Index of 0.983 and the CFI of 0.906 indicate a fair fit, the AGFI/Adjusted Goodness of Fit of 0.861 indicates a moderate fit and the RMSEA of 0.056 shows a good fit.

Table 3. Descriptive statistic and correlation

	Mean	Standard Deviation	1	2	3	4
Knowledge sharing	32.67	2.934	1.000			
Transformative interaction capability	26.13 .	2.199	546**	1.000		
Adaptability to technological change	33.43	2.939	466**	824**	1.000	
Teamwork performance	33.56 .	2.947	476**	748**	824**	1.000

Source: author's own research 2023

RESULTS

Hypothesis test

The CFA model was transformed into a structural model to test the hypotheses of this study. Table 3 shows the test results. All hypotheses were validated with a significance level of $p < 0.001$. In addition, the path regression coefficient for H1 = 0.380; H2=0,378;H3=0,637; and H4 = 0.510, with a critical ratio or t value > 2.0 . This shows that all the proposed hypotheses are accepted.

Mediation effect

The mediating effect of TIC on the relationship between QWL and TP was tested using the Sobel test (Hayes, 2009). The statistical test value of Z is 6.7834219,

where the result is higher than the cut-off value of 1.96. This shows the mediating effect of the tested variables. In other words, transformative interaction capability mediates the effect between frequent and team performance.

Hypothesis	Standardized path coefficient	t Value	prob	Result
H1	knowledge sharing → Transformative interaction capability	0.380	2.297	Significant
		0.001		
H2	Transformative interaction capability → team work performance	0.378	4.129	Significant
		0.003		
H3	Transformative interaction capability → Adaptability to technological change	0.673	5.759	Significant
		0.001		
H4	Adaptability to technological change → Teamwork performance	0.510	5.821	Significant
		0.000		
H5	Transformative interaction capability → mediated Transformative interaction capability and Team work performance	Z-nilai=6,7834219		Significant
		0.000		

Source: author's own research 2023

DISCUSSION

The aim of this study is to improve the performance of teams through the sharing of knowledge, making use of two theoretical concepts presented by (Qamari et al., 2019) - human capital and transformation theory (Mcgrath, 1991). The presentation of the relationships between the variables in this study, as well as the scientific contributions and underlying theory of these concepts, will be evaluated in the discussion section. First, the act of knowledge sharing has an impact on transformative interaction capabilities within organisations. If knowledge sharing is seen as an easily performed unit, effective knowledge-sharing activities among Team can facilitate developing productive collaborations. Increased knowledge-sharing activities between Team help to generate creative ideas and can increase innovation, both in terms of process innovation and product development. Effective knowledge-sharing activities between individuals within an organization are expected to facilitate expression and communication. The expectation is that this will lead to an increase in Team' knowledge and skills, and thus to capacity building. Developing skills within a team refers to their ability to access and generate relevant knowledge for a sustainable system. This is also known as the ability to interact in a transformative manner (Qamari et al., 2020).

Transformation can be defined as a learning process that involves several qualitative changes. The frame of reference or cognitive mental structure that team members possess can help to regulate how they understand themselves and how they live within the organization. Furthermore, the concept of transformative interaction highlights the role of team members in influencing the world at large, and emphasises the central position they play. This position has

the responsibility to provide critical reflection and promote open discourse. It would be of great relevance for applying new knowledge to academic and professional work. The aim of transformative interactions is the generation of a diversity of understandings and the development of innovative practices in a holistic way. Understanding .There are three fundamental areas that are becoming increasingly important to individuals and communities: mental learning, emotional awareness and social development. In addition, the findings of the study broadly corroborate previous research suggesting high levels of knowledge sharing promote knowledge creation and positively impact team performance (Hong et al., 2018). The ability of both the organization and its team members to effectively implement a range of information technologies may be enhanced through the acquisition of optimal knowledge.

This study confirms the findings of prior research, demonstrating that the exploration of ideas can promote innovation and foster an environment which encourages transparent sharing of information among colleagues working on parallel tasks (Mesmer-Magnus & DeChurch, 2009). It is hoped that a comprehensive and thorough development strategy will be implemented to benefit the team. This particular study successfully covered a wide range of topics that will allow for detailed information processing, which will lead to an improvement in the quality of the team's decision-making. Through the maintenance of an open attitude during discussions, the team can achieve a range of positive outcomes for the improvement of overall performance (Qamari et al., 2020). This is achieved through the transformational concept of information exchange. Empowering to interact has enabled this research to be conducted in an empirical manner.

Team empowerment is expected to be achieved by drawing ideas from various media used in the workplace, in addition to training workshops to improve structure and evaluation. By sharing and adapting interactions, self-capacity, commitment and adaptation to market changes can be enhanced, ultimately paving the way for future success. When team members interact through continuous learning and staying abreast of design and technology developments, they can collaborate effectively to update and evaluate. Transformative interaction capability is a type of interaction based on learning, adaptation and mutual empowerment, which has a future focus and an acceptance of the inevitability of change. It is directed towards enhancing the effectiveness of (Qamari et al., 2019).It can be implemented by building a coherent mental framework externally, engaging in experimental activities, and actively collecting data.

CONCLUSIONS

This serves to elucidate the present study's research gap regarding knowledge sharing's differential impact on team performance. Developing on previous research, the transformative concept of Interaction Capability is proposed in this study's empirical research model. The aim is to enhance team performance outcomes through various antecedents. Statistical results confirm the significant testing of this concept. The research findings suggest that enhancing the novel concept of transformative interaction capability serves as a mediator in bridging the gap between knowledge sharing and team performance. In this study, team performance can be improved through the implementation of different empirical discoveries. Optimization of the team with maximum service, short planning, open communication and responsibility will be able to follow up on any problems encountered when there is a division of work specifications among team members. Meanwhile, the capabilities of appropriate work results will be able to exceed the target with positive appreciation from external and internal parties, and team activities with efficient resources will be able to be realised by using communication technology, which is the existence of adapting to use technological change, which is also a precursor for improving team performance. The findings of this study advance the formulation of novel concepts established by earlier researchers based on theories like resource, transformation and time interaction theories. Based on theories such as resource-based theory, transformation and time interaction theories of performance, the findings of this study advance the formulation of novel concepts established by earlier researchers. It is anticipated that these findings will enhance and serve as supportive evidence for the aforementioned theories. This study provides guidelines for improving the basic support for group learning, changing team behaviour, group dynamics and processes.

LIMITATION AND FUTURE RESEARCH

There are limitations to this research and future research agenda.

The sample used in this study is limited to a public institution in the field of education, so more research is needed to apply the research. Further research is needed to apply the research model to a broader range of sectors including business, manufacturing and BUMN (State-owned enterprises) organisations. The research is based on the theories resource, transformation and time interaction and performance theories.. Future research should include a number of theories and variables likely to enhance team performance, including group processes, decision making and leadership style. Furthermore, it is suggested that additional research on organisational behaviour is necessary to extend the model established in this study. Despite the simplicity of the model, the feasibility of this study in improving team performance was proven by the acceptance of all hypotheses, and the limitations of the study and recommendations for future

research were objectively addressed. The mediating role of the interaction variables has influenced knowledge sharing leading to improved team performance. This research demonstrates the need for public organisations to have this as one of their core competencies. The study also highlights the significant effect of the mediator variables on the team performance variables.

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