

# A CONCEPTUAL FRAMEWORK OF THE IMPACT OF TEAM COMMUNICATION PRACTICES ON INNOVATIVE TEAM PERFORMANCE

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**ABSTRACT :** *Research and Development (R&D) teams need an effective communication for sharing information between them in order to accomplish their goals and enhance performance. Thus, the purpose of this study is to discuss a conceptual framework of the impact of team communication practices on innovative R&D team performance and to determine the mediating impact of knowledge sharing on the relationship between team communication practices and team innovativeness. This is because despite all the incentives and financial assistance to attract investments in R&D activities, there remains a gap in understanding the role of communication in enhancing innovative R&D team performance. As such, it could be one of the contributing factors to the low achievements of R&D performance in Malaysia specifically amongst the universities. A systematic literature review will be conducted to identify, select and develop appropriate research instruments to be utilized in this study. Subsequently, this research is conducted at two Malaysia technical universities with the aim of attaining response from 30 R&D teams at these universities. This research is expected to benefit R&D teams in terms of enhancing their performance by practicing boundary spanning, communication safety, team reflexivity and task communication in team communication.*

**KEYWORDS:** Research and Development, Team communication, Innovative team performance, Resource-based view

## 1.0 INTRODUCTION

Research and Development (R&D) are activities that comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, which could be used to devise new application [1]. In the previous study also stated that innovation is recognised as having a positive impact on the productivity of the country [2]. Due to importance of R&D of nations, Malaysia has invested a substantial amount of money, where RM741 million was allocated in for fundamental R&D activities in the higher education sector during the 10th Malaysia Plan (RMK-10) [3]. As such, it has managed to increase the level of awareness towards the importance of R&D and subsequently encouraging participations among researchers within Malaysia universities. Hence, strong and competent R&D teams are expected to play important roles in the universities' R&D activities towards contributing to the exploration of new knowledge and technological development.

The awareness that successful teamwork depends so much on interaction and knowledge sharing amongst team members leads to a proliferation of team communication. Resource-based View (RBV) shows that human capital is an important resource that needs to be well managed for it to affect and enhance the R&D management as well as performance [4]. To support this, the previous study claims that human capital and the management of human resources is crucial for innovation start-ups [5]. Communication, which is a sub-element of human capital, plays an important role in the exchanges of new and innovative ideas within R&D teams of an organization. This is supported by theory of organizational communication (TOC), where the TOC has attempted to explain communication processes in organizations, and in many occasions is able to solve practicality and efficiency problems in the companies [6]. Furthermore, past research points out that team communication has been found to predict innovation [7], as well as project performance [8] [9]. Based on the evidence,

this research aims to explore more on the impact of team communication practices on innovative R&D team performance:

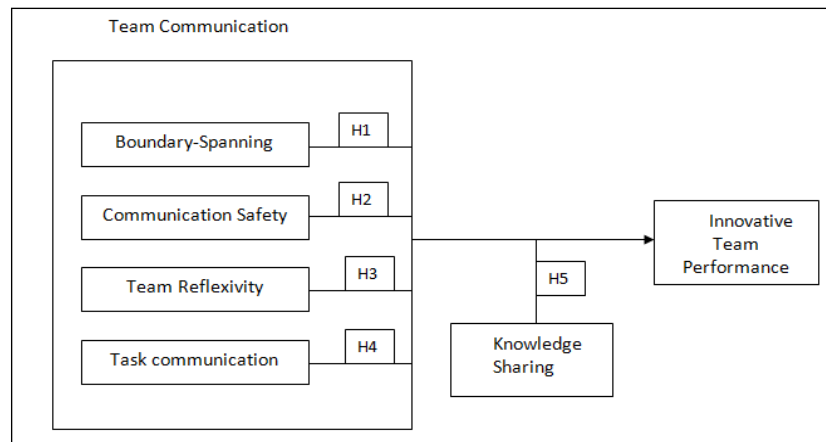
- 1) To explore the impact of the boundary-spanning, communication safety, team reflexivity and task communication.
- 2) To discuss the innovative team performance among R&D teams.
- 3) To explain knowledge sharing as mediating factors. Therefore, it is crucial for the research to look at team communication practices as one of the R&D strategy amongst innovative research and development (R&D) teams.

## 2.0 LITERATURE REVIEW

Communication is often assumed to be central to the successful performance team [10]. This is because the ability of team members to share and exchange ideas as well as information will inevitably lead to heighten intellectual discussions. Therefore, recent has found that communication, specifically team communication to be highly correlated with R&D performance [11]. As a result, it has shown that team communication to be very important in enhancing R&D teams' performance. Furthermore, previous study also argues that team communication is crucial to be examined in terms of understanding its impact innovative R&D teams' performance [12].

### 2.1 Boundary-spanning

Boundary-spanning enables expertise sharing by linking internal and external groups or organizations from different hierarchical or functional levels that would otherwise be more inward looking [13]. One critical aspect of the innovation process is the ability of the innovating unit to gather information from and transmit information to several external domains [14]. In the previous research, [7] found that there was a positive correlation between the boundaries spanning activity, within between organizations, and performance as well as higher rating of group cohesiveness and teams with boundary spanning capabilities, have a



**Figure 1: Team Practices Communication Framework of Innovative R&D Team Performance**

tendency to be perceived as more effective, and are therefore more likely to achieve their final goal.

## 2.2 Communication Safety

The communication safety can be defined as a mechanism to exchange information, ideas and different perspectives amongst team members [15]. The ability of teams to provide communication safety to their members will ensure that the members are able to contribute positively towards teams' innovativeness due to the absence of threat and expulsion from the group if the ideas are being forwarded and proposed. Effective safety communication is the cornerstone of a healthy organizational safety culture [16].

## 2.3 Team reflexivity

Reflexivity is the extent to which group members overtly reflect upon group's objectives, strategies and processes, and adapt them to current or anticipated endogenous or environmental circumstances [17]. Reflexivity is assumed to help teams know their actual working and develop new understandings and methods that respond to emerging conditions and challenges [18]. Team reflexivity is evaluated as whether the project team members can constantly and continuously monitoring both the internal and external environments and proactively adapt to the changing environment, [19]. Meanwhile, a previous study has found a positive correlation between reflexivity and team innovation in a study involving 100 works teams in China [20]. Hence, reflexivity is useful for teams to generate better and creative ideas. By engaging on team reflexivity, the members know their actual workings and develop new understandings and methods that respond to emerging conditions and challenge [21].

## 2.4 Task communication

Task communication relates to clarity of objectives, feedback, transmission and customer requirements which revolve around teams' goal setting [12]. Having a clear direction of the overall innovation endeavors undertaken by the teams will have a positive impact on teams' innovativeness. This is due to the fact that every member of the teams understands the goals that need to be achieved and will strive hard towards it. R&D teams that commonly perform non-routine and non-repetitive tasks require frequent task communication to provide comprehensive and

complete understanding of complex inter-related activities [12]. In particular, R&D team shares experience and complex knowledge among them to achieve their project goal.

## 2.5 Knowledge sharing impacts as mediating

In the previous study have indicated that sharing knowledge in a complex situation is extremely important, as tasks are highly interdependent and individuals do not possess all the knowledge required to solve interdisciplinary problems in complex situations by them [22]. Human knowledge can be classified into two categories: explicit knowledge and tacit knowledge. Explicit knowledge refers to knowledge that is transmittable in formal, systematic language. On the other hand, tacit knowledge has a personal quality, which makes it hard to formalize and communicate [23]. However, R&D knowledge has much in common with tacit knowledge [19]. Thus, the knowledge sharing plays very important mediated roles in the knowledge creation process in R&D team [23].

## 2.6 Innovative team performance

Innovative performance can be defined in the broadest sense focuses on both of the technical aspects of innovation and the introduction of new products into the market, but it excludes the possible economic success of innovations [24]. In previous studies that innovative performance in technical project teams is strongly associated with project success [25]. Previous research shows that the innovative R&D team have been measured. The empirical investigation involved numbers of Italian firms operating in technology-intensive industries, for which technological innovation and, therefore, the results of their R&D efforts are a major source of competitive advantage. Because of the significant contribution to the R&D overall success, these firms will be far likely to systematically measure their innovative performance [26].

## 2.7 Conceptual framework

Figure 1 conceptually explains team communication practices that take place within innovative R&D teams by linking boundary-spanning, communication safety, task reflexivity and task communication to innovative

## 3.0 Research Methodology

In order to answer the three objectives in this study, the appropriate method was employed. The method used was

gathering secondary data by reading books, handbooks, journals and legal documentation providing by both university researchers center. Thus, the method used will be helpful to attain a significant result for this study. team performance. It is also postulated that knowledge sharing will mediate the relationship between these two variables.

#### 4.0 CONCLUSION

The importance of team communication practices such as boundary-spanning, communication safety, team reflexivity and task communication in enhancing innovative R&D team performance is something that must be examined in providing more understanding of the phenomena. This is because these team communication practices are believed to able to predict innovation specifically innovation performance. At the same time, the ability of the R&D team to apply the appropriate knowledge sharing strategy will also mediate these dynamic of the relationship between team communication practices and innovative R&D team performance.

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