

UNIVERSITI TEKNOLOGI MARA

**LEVERAGING PERFORMANCE MEASUREMENT
SYSTEMS AND ORGANIZATIONAL LEARNING
FOR INNOVATION PERFORMANCE
IN MALAYSIAN STARTUPS**

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ABSTRACT

The increasing emphasis on innovation as a driver of national competitiveness and firm-level sustainability has intensified the need to understand how internal organizational mechanisms shape innovation outcomes in startup environments. In Malaysia, underperformance in the Global Innovation Index highlights challenges in translating external support into meaningful innovation outputs, thereby requiring greater attention to firm-level capabilities such as performance measurement systems (PMS). Although prior research recognizes the role of PMS in supporting innovation, empirical findings on the effects of different types of PMS use remain inconsistent. Furthermore, existing studies treat innovation as a unidimensional construct and pay limited attention to the mechanisms through which PMS influences different types of innovation. The mediating role of organizational learning has received insufficient attention, especially in startup contexts. Drawing on Goal-Setting Theory as the primary theoretical foundation, this study examines how the diagnostic and interactive use of PMS influence innovation performance and organizational learning. Organizational Learning Theory is used to explain the role of organizational learning as a mediator in linking PMS use to innovation outcomes. The Levers of Control framework is used to distinguish the diagnostic and interactive use of PMS. A quantitative research design was employed, and data were collected from 84 medium- and large-sized Malaysian startups at the organizational level through managerial respondents involved in performance monitoring and decision-making. The data were analyzed using Partial Least Squares Structural Equation Modeling to assess direct and mediating effects. The findings indicate that the diagnostic use of PMS does not directly influence innovation performance, whereas interactive use exhibits limited direct effects, significant only for overall innovation performance and radical innovation. Organizational learning demonstrates a consistent positive effect on both incremental and radical innovation performance and mediates the influence of both the diagnostic and interactive use of PMS on innovation performance. These results indicate that PMS contributes to innovation primarily through learning mechanisms rather than direct performance effects. These findings challenge the assumption that PMS directly enhances innovation and highlight the central role of organizational learning as the mechanism linking control systems to innovation outcomes. This study contributes to the management accounting literature by clarifying the distinct theoretical roles of Goal-Setting Theory and Organizational Learning Theory and demonstrating the predominance of indirect effects in explaining innovation performance. From a practical perspective, the findings suggest that startups should focus not only on the PMS use but fostering organizational learning to translate performance information into meaningful innovation outcomes.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter begins by providing an overview of the study's background, particularly in relation to innovation performance in Malaysia. It then outlines the problem statement, research objectives, and research questions. Subsequently, the chapter presents the significance and scope of the study, followed by key operational definitions to ensure clarity throughout the thesis. Finally, the chapter concludes with an overview of the organization of the thesis and a summary of the chapter.

1.2 Background of the Study

Innovation is fundamental to national economic progress because it drives productivity, shapes industries, and strengthens a country's global competitiveness (Munir & Beh, 2019). It enables the creation of new products, services, and processes that enhance efficiency and overall economic performance. At the firm level, innovation is equally critical, serving as a key success factor that allows businesses to respond to changing customer needs, differentiate themselves from competitors, and pursue new growth opportunities (Putit et al., 2014; Millson, 2013). In today's dynamic environment, firms that continuously innovate are better positioned to remain competitive and sustain long-term growth.

Given the importance of innovation to national competitiveness, countries must invest in the conditions that enable stronger innovation performance. The Global Innovation Index (GII) is widely recognized as a key benchmark for assessing these conditions and the resulting innovation outcomes (Jiménez-Gómez & Acevedo-Prins, 2018). As a comprehensive indicator of a country's innovation capacity, the GII serves as an important signal to investors and international partners, influencing decisions on investments and collaborations (Aurenty, 2022; World Economic Forum, 2015). The GII is organized into two main groups of pillars, according to the World Intellectual Property Organization (WIPO, 2025). The Innovation Input Sub-Index covers the conditions that