

UNIVERSITI TEKNOLOGI MARA

**DESIGN AND INNOVATION TO
ENHANCE SMEs' NEW PRODUCT
DEVELOPMENT**

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ABSTRACT

Design and innovation play a very significant role in producing innovative and high added value of products through new product development (NPD) process thus can enhance the SMEs' performance. However, the numbers of SMEs manufacturing involved in developing product by utilizing design and innovation is not at a good level. In order to understand how design and innovation has been practiced in the SMEs in developing new product, this research combined quantitative and qualitative data collection methods including a literature review, questionnaire survey and interview. Interviews include open ended and semi-structured interviews with staff who directly involved in the process of NPD, questionnaire surveys helped to provide background and validate findings from the secondary sources. Both data for quantitative and qualitative were collected through industrial designers, marketers and decision makers. The study has focused on SMEs in furniture, consumer durable product and automotive industries. The interviews focused on six issues ('Parties involve', 'Implementation', 'Management', 'Performance achievement', and 'Quality'. An overall finding shows that even though most SMEs know the importance of design and innovation as their sources of competitive advantages, however they are not fully engaged with the activity as they feel it would increase their operation costs. Additionally, they are more focused on generating profits in a short time rather than doing something risky. Besides that, there are differences in terms of the implementation stages in new product development process (NPD). Most of furniture produced by SMEs usually carry out prototyping and use existing design as their references to produce new furniture design. Furthermore, the nature of the industry itself does not really encourage them to come out with their own design. By contrast, SMEs in consumer durable product and automotive sector do implementing the whole stages of the NPD. The involvement of specific parties or expertise is important to ensure the successful of the NPD process. So, based on the result of this study, it can be concluded that SMEs should actively be involved with the design and innovation process, particularly through the NPD because it positively contributes to enhance their performance. Due to that, commitment from all parties especially top management or decision makers is important since it will motivate others like marketers, designers, engineers and also other workers in the company to work together as a good team in developing new product. The managerial aspect is also very crucial to ensure the success of the NPD process. Therefore, SMEs has operated in rapidly changing environment in which design and innovation should be used as the key factor to enhance their economic success. They must actively move a step forward by properly doing it in-house or by outsourcing from the expertise. This is important to realize our leader's mission: Malaysia's innovations.

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CHAPTER ONE

INTRODUCTION

1.1 OVERVIEW OF CHAPTER ONE

This chapter provides an introductory background for the research topic on Design and Innovation to Enhance SMEs' New Product Development. The study focuses on the SMEs manufacturers in furniture, durable consumer products and automotive. This chapter will discuss the background of the study, problem statement, research aim and objective, research question, scope of the research, limitation of the research and significance of the research.

1.2 BACKGROUND OF STUDY

The consumers' expectation of new products in terms of product differentiation is important in today's business environment. In order to meet that expectation, the companies have to implement various changes to their products so that they can put some value-added, for example in furniture industry (Ratnasingam, 2004). Therefore the role of design to produce innovative products is seen as an approach which should be done well in the company through new product development process or research and development.

Generally, the issues of design as a tool for innovation have developed rapidly in recent years. As a result, the concept such as strategic design, design management, design thinking and design innovation has arisen notably. There are a lot of issues being debated regarding design and innovation in a business perspective as well as SMEs (Moultrie, Clarkson & Probert, 2006)

The relationship between design and innovation in producing differentiation of products has been agreed in a business understanding. For example, Norio Ohga a former Chairman and CEO of Sony contended that *"at a Sony we assume that all products of our competitors have basically the same technology, price, performance and features. Design is only thing that differentiate one product from another in market"* (Design Council, 2011).