COLOUR DESIGN PREFERENCE FRAMEWORK FOR ATTRACTING MIDDLE EASTERN TOURISTS TO HOTEL LOBBIES IN MALAYSIA

MOHAMMAD KAMAL HUSSEIN AL ZOUBI

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By

MOHAMMAD KAMAL HUSSEIN AL ZOUBI

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Master of Science

January 2020

DEDICATION

To Malaysia and its people,

My country Jordan and my city Alramtha,

My great parents,
Haj Kamal Hussein and Hajah Fathiah Mohammad,

And my siblings and their children.

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January 2020

Chairman   :   Professor Rahinah Ibrahim, PhD
Faculty   :   Design and Architecture

Malaysia faced an average drop of 5.2% tourists from Middle Eastern countries during the period 2014-18, which in turn affected the annual income of RM84.14 billion. In this regard, the present research aims at documenting the colour design principles in hotel lobbies of Malaysia. Further, it also aims at analysing the colour effects in interior design and finally, the purpose is to develop a colour preferences framework that attracts Middle Eastern tourists towards Malaysian hotel lobbies. Moreover, the study is aimed to compare the results of Middle Eastern tourists' colour palette preferences with that of four other cultures such as American, English, Japanese, and Koreans (Park and Guerin, 2002). At first, the literature review covered Malaysian hospitality facilities, colour design psychology, colour preferences of interior design, and colour design environment. Under each theme, a review of major works by different scholars was performed to critically analyse their contributions towards future investigations and aspects that need to be enhanced for the colour psychology. Then, the study used survey methodology to determine the expected psychological effects of colours in interior design. An integrated colour palette was applied to assist in identifying the differences on colour meaning and colour preferences in interior environments for Middle Eastern tourists who visit Malaysia. The images of four interior colour palettes were shown to Middle Eastern tourists at random afterwhich they were requested to complete a questionnaire. A total of 14 descriptor words such as pleasant, calming, expensive, open, spacious, intricate, inviting, comfortable, modest, ordered, sophisticated, coordinated, unified or rich were identified to reflect the colour preference and meaning for the respective respondent. In this respect, the results of the study included the documentation of colour principles with regards to interior design in Malaysian hotel lobbies, understanding the colour effects in interior design elements, and the development of 'colour preferences framework' targeting Middle Eastern tourists. The results of the study focusing Middle Eastern tourists' colour preferences and its meaning showed that the most preferred and meaningful colour palette was B. The colours of this palette were selected from the Grand

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Millennium Hotel. However, it also indicates that the Middle Eastern tourists preferred an 'open' and 'inviting' colour environment as well as a 'coordinated', 'ordered', and 'sophisticated' environment. These colours are presented by warm hues (79.9%), light value (59.2%), Medium chroma (44.9%), low-value contrast (4.5/5.4), and medium chroma contrast (10.3/10.1) characteristics. In comparison with the selected four cultures, Middle Easterners' colour characteristics were found to be similar alike Americans though they differ much from English, Japanese and Korean cultures. Besides guiding interior designers from different cultures to design the built environment for other cultures, this study is significant in supporting the development of tourism sector in Malaysia. The results will also help hotel owners and operators in different cultural contexts for making affordable changes in their hospitality facilities, due to influx of seasonal tourism activities. Finally, the results of this study are significant to guide interior designers in designing culture-based environment in hotel lobbies. Notwithstanding, further studies could investigate and collect more information regarding Middle Eastern colour preferences in different areas, for instance, hotel rooms.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

KECENDERUNGAN TERHADAP PEMILIHAN REKA BENTUK BERASASKAN WARNA SEBAGAI ELEMEN TARIKAN MINAT PELANCONG ASING KE LOBI-LOBI HOTEL DI MALAYSIA

Oleh

MOHAMMAD KAMAL HUSSEIN AL ZOUBI

Januari 2020

Pengerusi : **Profesor Rahinah Ibrahim, PhD**
Fakulti : **Rekabentuk dan Senibina**

Malaysia menghadapi penurunan purata 5.2% pelancong dari negara-negara Timur Tengah yang menjejaskan pendapatan tahunan sebanyak RM84.14 bilion dari tahun 2014 hingga 2018. Dalam hal ini, kajian ini bertujuan mendokumentasikan prinsip reka bentuk warna di lobi-lobi hotel di Malaysia. Kajian ini juga bertujuan untuk menganalisis kesan psikologi warna dalam reka bentuk dalaman dan akhirnya, membangunkan rangka kerja terhadap daya tarikan warna demi menarik pelancong Timur Tengah ke lobi hotel di Malaysia. Pertama, kajian lepas ini meliputi psikologi reka bentuk warna, warna reka bentuk dalaman, dan persekitaran reka bentuk warna. Di bawah setiap tema, penelitian terhadap karya utama oleh sarjana yang berbeza telah dilakukan untuk menganalisis secara kritis sumbangan mereka terhadap penyelidikan masa hadapan dan aspek yang perlu dipertingkatkan untuk psikologi warna. Kemudian, kajian ini menggunakan metodologi tinjauan untuk menentukan kesan psikologi yang dijangka daripada warna reka bentuk dalaman. Palet warna yang bersepadu digunakan untuk mengenal pasti perbezaan pada makna dan pilihan warna terhadap persekitaran dalaman dalam kalangan pelancong Timur Tengah yang melawat Malaysia. Sebanyak empat gambar palet warna dalaman ditunjukkan kepada pelancong Timur Tengah secara rawak kemudian mereka dipinta menjawab soal selidik. Sebanyak empat belas kata adjektif seperti menyenangkan, menenangkan, mahal, terbuka, luas, rumit, menarik, selesa, sederhana, canggih, diselaraskan, bersatu, atau kaya telah dikenalpasti untuk mengekspreskan makna warna bagi responden. Hasil kajian ini termasuk dokumentasi prinsip warna mengenai reka bentuk dalaman di lobi hotel Malaysia, memahami kesan psikologi warna dalam elemen reka bentuk dalaman, dan perkembangan 'rangka kerja daya tarikan warna' yang mensasarkan para pelancong Timur Tengah. Hasil kajian menunjukkan keutamaan dan makna warna yang paling disukai oleh para pelancong dari Timur Tengah adalah B. Palet warna ini telah dipilih dari Hotel Grand Millennium. Walau bagaimanapun, kajian menunjukkan bahawa pelancong Timur Tengah lebih memilih persekitaran warna "terbuka" dan

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"menarik" begitu juga warna yang "diselaraskan", "diperintahkan", dan "canggih". Makna warna ini diwakili oleh ciri-ciri warna hangat (79.9%), nilai cahaya (59.2%), medium kroma (44.9%), kontras nilai rendah (4.5 / 5.4), dan kontras medium kroma (10.3 / 10.1). Hasil dapatan akan dapat membantu tuanpunya dan pengusaha hotel yang berada di konteks kebudayaan yang berbesa untuk membuat perubahan mengikut kemampunan fasiliti tersebut berdasarkan keperluan pelancong yang bermusim. Akhirnya, hasil dapatan kajian adalah signifikan dalam memandu pereka dalaman untuk mereka bentuk persekitaran yang berlandaskan kebudayaan bagi lobi hotel. Kajian akan datang dicadangkan agar dapat mengkaji dan mengumpulkan lebih banyak lagi data mengenai warna-warna Timur Tengah yang lebih disukai di ruang-ruang yang lain seperti di bilik-bilik hotel.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

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Date:

Declaration by graduate student

I hereby confirm that:
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Declaration by Members of Supervisory Committee

This is to confirm that:
- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) were adhered to.

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CHAPTER 1

INTRODUCTION

1.1   Introduction

An overview of the research is presented in this chapter by describing the background of the study, followed by the problem statement. This chapter also presents the research design framework, research questions, research objectives, hypotheses, research framework, and outline of this thesis.

1.2   Background of Study

Colour preference is a central part of visual knowledge that impacts an inclusive change in human actions, for example, choosing cars, clothes, and interior decorations. According to Park and Guerin (2002), colour is a deep-rooted visual property as normal and designed environments (Park & Guerin, 2002). As part of the design environment, interiors are designed using multiple colour schemes along with elements including floors, walls, ceilings, window treatments, and furnishings. Furthermore, although most studies in colour preference investigated psychophysical characterisations, which is important for marketing applications, many of these studies did not provide adequate information for the reasons why some people like those colours or even why they have such colour preferences. Several theories have postulated the reasons behind colour preferences (Guilford et al., 1959; Helson et al., 1970). For instance, Humphrey (1976), recommended that the colours of many modern artefacts are virtually complete, although random in nature. In some cases, such as the colour of a shirt or car, it neither creates significant signal value nor creates deep normal colour signals.

Humphrey (1976), reported that colour preferences originate from the signals sent by the colours to human beings. For instance, a flower's colour attracts specific cross-pollinating insects, and at times, they send 'avoid' signals as well. Whereas, Ou et al. (2004) stated that colour preferences are created on 'colour-emotions', which can be called "feelings evoked by either colours or colour combinations." Moreover, colour-feelings or emotions can be connected negatively with colour preference, if the colours are favoured to the degree that when viewed, the phenomenon creates positive feelings for the observer (Ou et al., 2004). Additionally, interior designers take into account many features associated with colour to specify an environment's colour palette when addressing a design issue. Practical, attractive and beautiful interiors have colour palettes which represent a significant meaning to the end-users' who are attached to special colours (Park & Guerin, 2002). In fact, some designers have questioned and explored empirically-proven colour guidelines for interior spaces.

On the other hand, the empirical evidence for making informed decisions regarding the application of colour for hotel environmental design is scarce. Therefore, this study aims to investigate the colour effects on tourists in a real-time setting, specifically in the Middle Eastern region. Furthermore, there is also a need to understand Middle Eastern cultural psychology, so when they are visiting Malaysia, they are afforded with appropriate hospitality accommodation design.

1.3   Problem Statement

Malaysia is a well-known destination for tourists. The tourism sector in Malaysia edged up two places to rank 23 out of the 157 countries and fifth best in Asia in the World Economic Forum's Global Competitiveness Report 2017-2018 (See Figure 1.1). Many studies have shown that the industry for tourism in Malaysia has quickly matured into a prominent and valuable sector contributing to the country's Global Competitiveness Report. The industry for tourism comprises of hospitality and accommodation services, services that cater for tourists including resorts and travel agencies, food and transport services. Tourism has also evolved and matured from simply offering hotel accommodation from several decades ago, to nowadays supplying a range of other services such as providing travel packages for international and local tourists: sports and entertainment events, eco-tourism, health and education (Salaam Gateway, 2017).

TOP 25 PERFORMING COUNTRIES

1. Switzerland	14. Canada
2. United States	15. Taiwan, China
3. Singapore	16. Israel
4. Netherlands	17. United Arab Emirates
5. Germany	18. Austria
6. Hong Kong	19. Luxembourg
7. Sweden	20. Belgium
8. United Kingdom	21. Australia
9. Japan	22. France
10. Finland	23. Malaysia
11. Norway	24. Ireland
12. Denmark	25. Qatar
13. New Zealand	

The Malaysian Insight Infographic

Figure 1.1 : Top 25 Performing Countries
(Source: Global Competitiveness Report, 2017-2018)

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According to statistics related to tourism between 2014-2018, Malaysia experienced an average drop of 1.2% in international tourists, which represented an annual income of RM84.14 billion receipts. The number of international tourists dropped by 1.61 million between 2014 to 2018 (See Figure 1.2). The country received 25.83 million tourists compared to 27.44 million tourists in 2014 (Tourism Malaysia with the cooperation of Immigration Department, 2019).
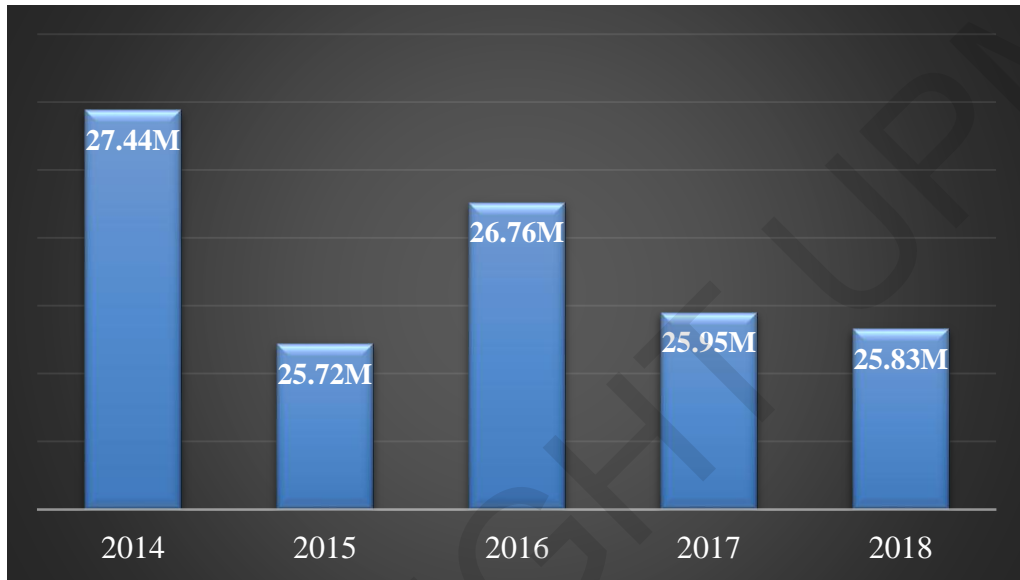
Figure 1.2 : Trend and Flow of International Tourists into Malaysia
(Source: Tourism Malaysia with the cooperation of Immigration Department, 2019)

By 2020, Malaysia has set itself a target to attract 1 million visitors from the Middle East. The Ministry of Tourism and Culture informed Salaam Gateway, "We have been the number one country for Islamic tourism over the last seven years, but Middle Eastern tourists still account for a small number". From the 26.8 million tourists that visited Malaysia in 2016 only about 5.5 million tourists were Muslim, with around 261.66 originating from the Middle East. The Ministry further mentioned, "We believe there is great potential to increase the number of tourists coming from the Middle East. By 2020, we hope to receive 1 million visitors from the region". (Salaam Gateway, 2017).

Accordingly, Malaysia has set an overall target of 36 million tourist arrivals by 2020 and revenue of RM168 billion as part of the country's Tourism Transformational Plan. In 2016 and 2017, the country earned RM82.1 billion ($18.9 billion) in receipts from tourism activities. (Salaam Gateway, 2017).

As mentioned earlier, concerning the Middle East, Malaysia is keen to attract 1 million tourists to Malaysia by 2020. However, there is a need first, to understand what they like and do not like, and improve the services in order to attract them to visit Malaysia. For instance, studying the challenges faced by Middle Eastern tourists such as cultural

challenges, food habits, language, costs, transportation, and hotels with respect to Malaysia. Moreover, Wars in Syria, Yemen and Qatar affected the Middle East markets, further impacting Malaysia's tourism performance after Malaysia Airlines discontinued its routes to Dubai and Kuwait in 2016.

According to statistics related to tourism between 2014-2018, Malaysia experienced an average drop of 5.2% in tourist arrivals from Middle Eastern countries, which represented an annual income of RM84.14 billion receipts, please refer to Figure 1.3.
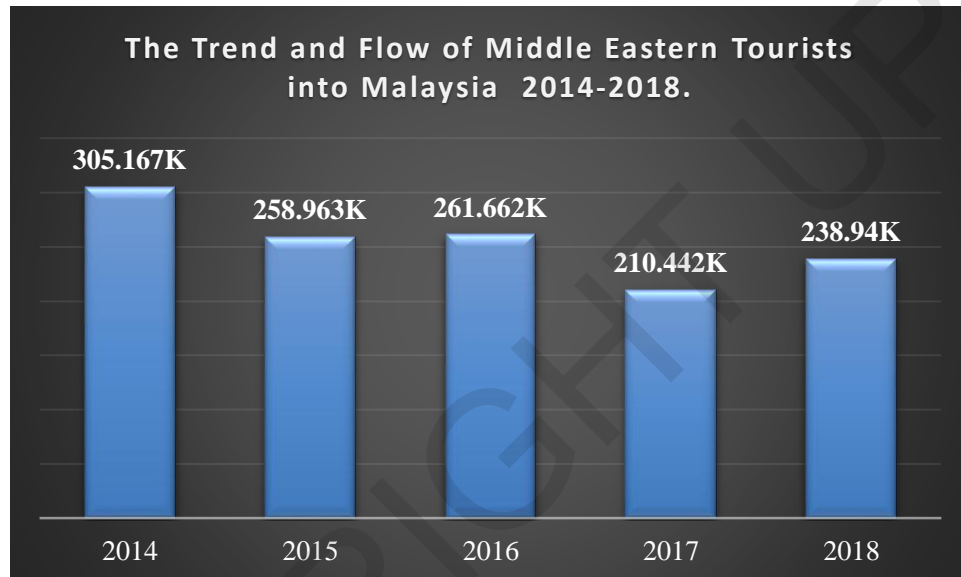
Figure 1.3 : Trend and Flow of Middle Eastern Tourists into Malaysia
(Source: Department of Statistics, Malaysia, 2019)

The hotels in Malaysia planned to open in 2019 include Jen Kuala Lumpur, Anantara Desaru Resort & Villas in Johor Bahru, and Hyatt Place in Malacca, while the Movie Animation Park Studios at Bandar Meru opened on June 26, 2017. In East Malaysia, which is a less developed region with huge potential, the government is intensively promoting eco-tourism. Here, the minister also mentioned, "We just need to have more airlines flying into the region and more hotels. This is what we are working on now. We hope that by 2020 we will have more tourists coming to Malaysian Borneo,". The minister also mentioned that he wanted to build more hotels but did not focus on the hotel's design and its effects on the guests. Importantly, there is a need to design the lobbies of these hotels in order to attract tourists into Malaysia in achieving the targets as set in the 2020 Tourism Transformational Plan. This will also result in hotel guests feeling more relaxed when arriving and induce and inspire them to stay longer, and not merely to check in or out.

This concept and suggestion have led to the following research question: "What is the colour preferences framework that attracts Middle Eastern tourists to Malaysia hotel lobbies? However, first, we need to understand their colour preferences in order to

apply these colours to Malaysia's hotel lobbies. In the field of design, colour has an important role as it can convey message or feelings which help to generate revenue and sales. Subsequently, guidelines have been developed which help to demonstrate and guide the application of various tools for designers. These guidelines invariably help designers to effectively use colours to convey meanings in order to gain the attention of individuals and helping to promote products and services.

The previous studies have revealed that colour preferences are often based on impacts such as the environment, culture, religion, and language (Park and Guerin, 2002; Yildirim et al., 2011; Manav, 2007). Accordingly, it is important to understand Middle Eastern tourists' preferences to colour in order to achieve Malaysia's Tourism Transformational Plan goal by 2020.

Notwithstanding, some colour interior design studies have suggested that colour is the most important factor to attract users and to gain their attention. (Smith, 2008; Baniani & Yamamoto, 2015). Given many people nowadays, have time and income available to spend, they are often excited to visit and experience different cultures in other countries. As travel becomes more relevant and affordable, hotel numbers will increase thereby placing an additional burden on hotels to distinguish themselves from competitors in order to attract customers and to sustain their business (McDonough et al., 2001). Thus, Malaysia as a nation is excited and looking forward to attracting 1 million tourists from the Middle East by 2020. Since the cost to provide sufficient seasonal visitors from Middle East is high with building of new facilities, this study aims to assist current hotel owners and operators reduce their refurbishment costs to meet the Middle Eastern tourists. By way of understanding their colour preferences, perhaps Malaysian hospitality facilities could make appropriate adjustments rather economically. Therefore, this study becomes imperative for researcher to understand the Middle Eastern colour preferences while they are in Malaysia in order to afford them with appropriate hospitality accommodation.

1.4   Research Design Framework

The current section shows how the researcher planned the research framework using the E.A.G.L.E Research Design Framework (Ibrahim, 2011) technique (See Table 1.4). It highlights research title, problem statement (PM), main research question (RQ), Research question constructs (RQCs), description of research question constructs (DRQCs), description of Sub research questions (RQs), research objectives (ROs), and the strategy of inquiry. Details of the research workflow are presented in the Chapter of Research Methodology.

Table 1.1 : Development of Research Questions Using the E.A.G.L.E Research Design Framework (Adapted from Ibrahim (2011)).

Title: Colour design preference framework for attracting Middle Eastern tourists to Malaysian hotel lobbies			
Problem Statement: There is a need to understand the Middle Eastern colour design preferences while they are in Malaysia in order to afford appropriate hospitality accommodation design for them.			
Main RQ: What is the colour design preferences framework [What] that attracts the Middle Eastern tourists [How] to Malaysia hotel lobbies [Who]?			
RQ Construct	**Description of RQ Construct**	**Description Of SUB-RQ**	**Strategy of Inquiry**
WHO	**MALAYSIAN HOTEL LOBBIES**	**SUB-RQ 1:** What are the colour design principles in Malaysian hotel lobbies? **RO 1:** To document the colour design principles in Malaysian hotel lobbies.	**Literature Review**
WHAT	**Colour Preference framework**	**SUB-RQ 2:** What are the colour preferences of Middle Eastern tourists in interior design? **RO 2:** To analyse the colour preferences of Middle Eastern tourists in interior design.	**Literature Review**
HOW	**ATTRACT MIDDLE EASTERN TOURISTS**	**SUB-RQ 3:** What is the colour preferences framework that attracts the Middle Eastern tourists to Malaysia hotel lobbies? **RO 3:** To develop a colour preferences framework that attracts the Middle Eastern tourists to Malaysia hotel lobbies.	**Survey**

1.4.1 Research Questions

This study uses the E.A.G.L.E Research Design Table (Ibrahim, 2011) to explain the theory that guides the study. According to Ibrahim (2011), constructs description in the research question (RQ) in taken from E.A.G.L.E Table to determine the preliminary literature survey that guides a research design. For Masters level, RQ constructs are involved one "WHO" construct (element used in or impacted by the study), one "WHAT" (body of knowledge required to solve the problem), and one "HOW" (action or impact on the who and what). These RQ constructs would then lead to theoretical development of the research design and determine supporting theories for the researcher to apply in this study. In this study, the researcher uses a "who", "what", and "how" RQ constructs to determine the direction of literature surveys. the constructs are:

"WHO" Malaysian hotel lobbies,

"WHAT" Colour Preference Framework, and

"HOW" Attract Middle Eastern tourists.

The main research question of the study is:

> ***Main RQ***:   What is the colour preferences framework [What] that attracts the Middle Eastern tourists [How] to Malaysia hotel lobbies [Who]?

Three sub-questions are posited to help in answering the main RQ above:

> ***Sub-RQ1***:   What are the colour design principles in Malaysian hotel lobbies?
>
> ***Sub-RQ2***:   What are the colour preferences of Middle Eastern tourists in interior design?
>
> ***Sub-RQ3***:   What is the colour preferences framework that attracts the Middle Eastern tourists to Malaysia hotel lobbies?

Table 1.1 illustrates the strategy of inquiry determined in this study. Extended from the E.A.G.L.E Table (Ibrahim, 2011), the researcher identifies the potential strategy of inquiry of the research design based on the theoretical constructs. For the "Malaysian hotel lobbies" construct, the researcher used literature review. for the second concoct, the "colour Preferences framework" construct, the researcher used literature review too. For answering the last construct of "attract Middle Eastern tourists", the researcher used a survey questionnaire.

1.4.2   Research Objectives

The main goal of the study is to develop a colour preferences framework to attract Middle Eastern tourists to Malaysian hotel in order to afford appropriate hospitality accommodation design for them.

The objectives of this study are:

1- To document the colour design principles in Malaysian hotel lobbies,
2- To analyse the colour preference of Middle Eastern tourists in interior design, and
3- To develop a colour preferences framework that attracts the Middle Eastern tourists to Malaysia hotel lobbies.

1.4.3 Hypotheses:

Based on the review studies, two hypotheses generated

> *H1:* There is a significant difference in colour palette preference for Middle Eastern tourists.
>
> *H2:* There is a significant difference in the meaning of interior colour palettes among Middle Eastern subjects.

Repeated measure ANOVA was used by the researcher to identify the significance of differences among subjects' responses in the four palettes related to colour preference and meaning in interior environments. See Chapter 4

1.5 Research Design Workflow

It is likely that the colour preferences and inclinations of Middle Eastern tourists who visit Malaysia will differ based on the criteria that have been developed for this study. Therefore, to understand these differences, a research design workflow has been proposed (Refer to Figure 1.5).
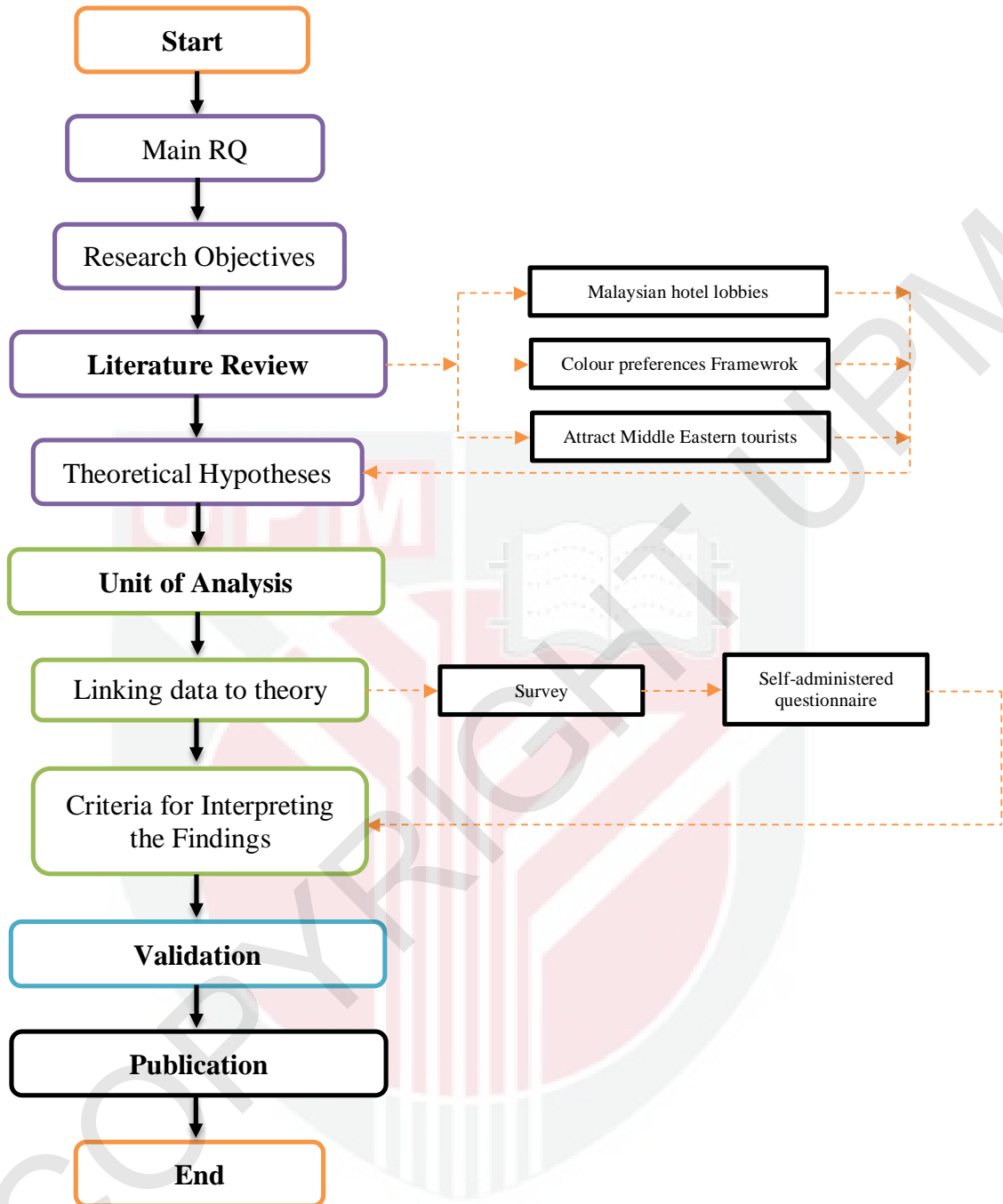
Figure 1.4 : Research Design Workflow

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1.6 Research Methodology

Research methodology is a systematic process of theoretical analysis applied in a field of study, and covers paradigm, theoretical model, stages and research techniques. Unquestionably, there are three types if research design available for researchers to consider namely the qualitative approach, the quantitative approach or the mixed method approach. In this study, the researcher employs quantitative research methodology.

The methodology employed in this study is presented in this chapter and clarifies the reasons for choosing a survey as the research methodology. A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. From sample results, the researcher generalises or makes claims about the population.

The prose of the study was to develop a colour preferences framework that attracts Middle Eastern tourists to Malaysian hotel lobbies. To conduct the data Guerin and Parks' (2002), incorporated a colour palette/scheme that used to find the variations in preferences and meaning. Four Palettes of interior design colour were displayed to subjects, who were Middle Eastern tourists. As the subjects considered each palette, they completed a questionnaire consisting of fourteen descriptor words. The subjects revealed the level of presence of the explanation given in each palette. This instrument used to confirm if there is a colour difference between cultures about colour preferences selection, it also contributes to providing literature about Middle Eastern colour behaviour to be available for future research. Moreover, it provided information on the essential parts of the study such as components of the selected methodology, sampling design, data collection method, survey instrument, data analysis, validation and reliability of the study. Detailed explanations discussed in chapter three.

1.7 Definitions of the Colour Palette Characteristics

For each palette, five dimensions were measured: value, value contrast, chroma contrast, hue, and chroma. The elements are initially described with regards to every palette founded on the characteristics mentioned.

Munsell (1946), defines Hue as "distinctive characteristic of any chromatic colour distinguishing it from other hues, such as those found in the spectrum or between the ends of the spectrum". This is defined using colour names of purple, blue, yellow, green or red.

Value can be described as; "lightness or darkness of any colour". Therefore, the value can be depicted as dark, middle or light. Chroma described as the "strength or weakness of a Chromatic colour". Accordingly, chroma is depicted as strong, moderate or weak.

Contrast is defined as the layout that "appears when two colours in contact seem different from what they would when viewed separately".

1.8   Outline of the Thesis

This thesis is divided into five chapters as follows:

First Chapter presents the overall introduction of the research. It examines the background of the research problems as well as the aims and objectives of the research that are formulated based on the area of the study. The theoretical framework and the formation of research questions are illustrated and discussed in this chapter. The

Second Chapter discussed the literature review of colour effects the interior design environment on users and how interior design could benefit from a culture-based colour preference by examining the utilisation of culture-based colour design preferences in interior design works.

Third Chapter shows the survey research methodology. The survey method used an instrument to determine the colour meaning and preferences of Middle Eastern tourists. Data collection and data analysis are also discussed in this chapter.

Fourth Chapter shows the analysis and results of the study, and it shows other issues related to the findings according to the main and sub-research questions. In this regard, the content of this chapter is organised under the hypotheses. A quantitative statistical one way repeated measure ANOVA and Exploratory Factor Analysis for Quantitative were used to identify the similarities and differences among subjects' responses of Middle Eastern tourists related to colour preference and meaning in interior design environments.

Fifth Chapter compared the Results of Middle Eastern tourists' colour palette preferences with four other cultures, including American, English, Japanese, and Koreans (Park and Guerin, 2002). It also shows the most significant findings of the study, limitation of the study, knowledge contributions, and highlights the recommendations for further and future research studies.

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