INFLUENCES OF SOCIO-CULTURAL VALUES TO COMMUNITY HOUSING DESIGN IN THE GAZA STRIP PALESTINE

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UNIVERSITI TEKNOLOGI MALAYSIA
INFLUENCES OF SOCIO-CULTURAL VALUES TO COMMUNITY HOUSING DESIGN IN THE GAZA STRIP PALESTINE

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A thesis submitted in fulfilment of the requirements for the award of the degree of Doctor of Philosophy (Architecture)

Faculty of Built Environment and Surveying
Universiti Teknologi Malaysia

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DEDICATION

By the special grace of Allah, I dedicate this thesis..

.. to my lovely mother and father, who always believed in their children.
.. to my lovely wife “Jehad” for supporting me during my PhD journey.
.. to my beloved children: “Mohammed, Heba, Razan, Abdalrahman and Tala”,
for their love and support.
ACKNOWLEDGEMENT

I would like to express my gratitude and thank all who helped and supported me during my PhD journey.

I would like to acknowledge my limitless gratitude and submission to Almighty Allah for granting me countless blessings. Without His blessings, I would not have been able to complete this thesis. Infinite praises are due to Him, and may endless peace and blessings be upon His beloved Messenger Muhammad.

I would like to express my heartfelt appreciation to my Supervisor, Assoc. Prof. Dr. Mohd Zin Kandar, for pointing me towards this work and for his much appreciated valuable support, thorough advice, patience, and encouragement. It was a rare privilege to work with him.

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Many appreciations are accorded to all of my sisters and brothers, my relatives and my friends for their encouragement and support through the period of this work.

I am grateful to University of Technology Malaysia (UTM) for providing me a scholarship and opportunity to pursue my doctoral degree.

Finally, I pray to Almighty Allah to accept this humble piece of work as done for gaining His Good Pleasure here and hereafter. Amen.
ABSTRACT

Rapid socio-cultural change in contemporary life is affecting housing design in the Gaza Strip Palestine. Alongside design issues of housing, the absence of socio-cultural values is also one of the serious problems facing the community of the Gaza Strip. Academic literature shows that socio-cultural values are deeply rooted in housing design and can play an integral role in developing sustainable communities. Thus, scholars believe that socio-cultural values should be incorporated in housing design and have suggested further inquiry. However, integrating socio-cultural values in housing design is a challenge. Against this background, the current study aims to investigate the relationships between socio-cultural values and housing design by bridging research gaps identified in the literature. This study employed the triangulation study design using both quantitative and qualitative data to address the research objectives. The quantitative data of 252 respondents were obtained through questionnaires, followed by seven semi-structured interviews conducted with residents from the Gaza Strip to complement quantitative results and provide better understanding of socio-cultural values in the context of housing design. Quantitative data was analysed through structural equation modelling (SEM) using AMOS 22 and qualitative data was analysed through thematic analysis using NVIVO 11. The quantitative findings revealed that social values namely family structure (FS), family values (FV), family life style (FLS) and cultural factors namely privacy (PV), religion and attitude beliefs (RAB), safety and security (SS) related positively with housing design (HD). Several major themes of social and cultural values also emerged in explaining housing design. This study makes a novel contribution based on socio-cultural values and housing design in the field of built environment.
ABSTRAK

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Chapter one presents introduction and provide brief overview of current study background, significance and scope, problem statement, research questions and objectives. Moreover, this chapter highlights key socio-cultural values that influence housing design. This study proposes a framework which integrates the socio-cultural values and housing design in the Gaza Strip.

Over the years, the concept of housing has significantly evolved. At earlier times, the primitive human used to build their houses merely as a shelter. Shelter has always been one of the basic human needs (Mills and Ota, 1989; Olayiwola et al., 2005; Un-Habitat, 2006; Taiwo, 2018; Ruonavaara, 2018). The housing is the most important long-term investment that provides security and privacy, for stability of the whole family (Opoku and Abdul-Muhmin, 2010). The house formation is not simply the result of the physical forces or any single causal factor but the consequence of a whole range of socio-cultural factors. Overall, the concept of housing is a compound of physical and social mechanisms that made the housing system (Francescato et al., 1987; Rapoport, 2016).
Housing has a greater influence on the global and social harmony than any other building type. The importance of the house as a starting point for the successful communities. Housing form is not simply the result of physical forces or any single causal factor but is the consequence of a whole range of socio-cultural factors seen in their broadest terms (Rapoport, 2016; Ihuah et al., 2014).

The house is a family unit that addresses three different dimensions of well-being as, economic development, social welfare and environmental welfare (Almansuri et al., 2009; Næss, 2017; Shehab and Kandar, 2017). Chiu (2004) has highlighted that the sustainability of housing development embraces the environmental, social, cultural and economic aspects (Soflaei et al., 2017; Shehab and Kandar, 2017). The socio-cultural values are integral part of housing design e.g (Chiu, 2004; Opoku and Abdul-Muhmin, 2010; Fallah et al., 2015; Makinde, 2015; Zinas and Jusan 2017; Næss, 2017; Isnin et al., 2018). Rapport (2016) has investigated that socio-cultural elements influence housing designs. The objective of this research to explore the impact of socio-cultural values on housing design in the Gaza strip Palestine.

1.2 Background of the Study

Gaza is a small part of Palestinian Territory located on a 45km² land at 34N° longitude and 31E° latitude. It is a historical city colonized by many empires since the Pharaonic Empire till the recent occupation by Israel. The Gaza Strip consists of five governorates: North, Gaza, Middle, Khan Yunis, and Rafah (UNEP, 2009). It is located at the southwestern end of the Occupied Palestinian Territories (OPT), with a length of 41 km and a width ranging from 6 to 12 km, covering a total area of 360 km² as shown in Figure 1.1. The Gaza Strip has a total population of 1,899,291 with a 3.3% annual increase in population (Enshassi et al., 2015 and PCB, 2017). Housing provision has been always challenging in the Gaza Strip (Barakat et al., 2004).
After the July 2014 Israel–Gaza conflict, also known as Operation Protective Edge, for example, more than 90,000 homes in the city of Gaza were damaged or destroyed, and one in four inhabitants (over 100,000 people) was internally displaced (Barakat and Shaban, 2015). Public services were devastated, leading to scarcity of water, sanitation, energy, food and shelter. This has exacerbated the impact of systematic violations of human rights in the area. Before these military operations,
80% of the residents in Gaza were already dependent on aid, 47% were food insecure, and 40% were unemployed (Barakat and Shaban, 2015). An already vulnerable population was therefore further compromised, and the impacts on women, children, the elderly, and people with disabilities were amplified. Agriculture, industry, and trade came to a standstill. Significant environmental damages occurred, such as loss of biodiversity and the contamination and degradation of land, water, and air due to toxic substances (UNDP, 2014). In addition, a long-term blockade imposed by Israel has prevented inhabitants from accessing 35% of farmland and 85% of fishing waters, and reduced exports by 97%. After the overthrow of Muhammad Morsi in Egypt in July 2013, the tightening of restrictions along the Gaza Strip/Egypt border brought further political and economic isolation (Barakat and Shaban, 2015).

Due to occupation and conflicts challenges everyday life by killing, injuring, and displacing people, disrupting settlements, infrastructure, and livelihoods, and leading to long-term impacts on the economy, politics, and wider society. Post-conflict settings pose challenges for governments and communities that need to be rebuilt while maintaining stability and working towards lasting peace. The reconstruction of countries affected by conflict is a major challenge is often managed both by the internal governments and external actors (Sakalasuriya et al., 2016; Enshassi et al., 2017).

Recently, it formed its government under the Palestinian National Authority (PNA). Gaza has the highest population density in the world with 100,000 persons/km². Based on survey, it was reported that 40.7% of people living in Gaza reside in new houses, 30.4% renovated their old houses, while 28.9% of its population live in houses that are 40 years old or more (Mushtaha and Noguchi, 2005; Shehab and Kandar, 2017). The Gaza strip is experiencing critical conditions because of Israeli occupation and unstable political situation creating social, economic, and environmental challenges. The Gaza Strip is an isolated region of Palestine whose strategic role is accentuated because it directly adjoins the Mediterranean Sea. Israeli occupation military waged several attacks resulting huge destruction. Based on statistics around 27 % houses were damaged in 2014 (Alatawneh and Germanà, 2015). Depending on the Palestinian national early recovery and reconstruction plan for Gaza, nearly 10,000 housing units were damaged totally, severe damage to nearly 10,000
housing units, and partial damage to nearly 40,000 housing units. Those numbers are very large in comparison to the total number of families there (about 220,000 families), which means about 60,000 families became homeless (The Palestine Government’s Higher Inter-Ministerial Committee, 2014 cited in Alatawneh and Germanà, 2015). Entire neighbourhoods still lie in rubble; residents cannot rebuild their houses. At the same time, people are not allowed to import building materials (such as steel, cement, etc.) from outside Gaza. The transformation of Gaza’s housing sector began with the inauguration of the PNA in 1994. Thus, one of the main challenges faced by the PNA shortly after its formation was to provide new living units for its people. After the withdrawal and transfer of control of Israeli forces to the PNA, following the 1994 peace agreement, the city of Gaza witnessed a predominant increase in multi-story building constructions. The reason for the high-rise buildings is a concern with the urgently meet the high demand for housing (Asfour, 2012).

Mostly the people of Gaza still choose to dwell in detached houses over the multi-storey building mainly because of their socio-cultural values. Ammar (2014) has pointed out that the choice of the PNA to embark on multi-storey residential buildings constructions based on many factors. These factors are such as the high cost and scarcity of lands, explosive population, the need to reduce pressure on land usage, and the invention of vertical lifts. Furthermore, technological advances in the construction industry, and to adapt to the younger generational demand are included where married and grown-ups prefer to live far away from the family house. He also noted the price difference between apartments and detached houses, asserting that detached houses were more expensive to inhabit due to the high cost of land (Ammar, 2014).

In 2008, the Palestinian Central Bureau of Statistics’ (PCBS) has reported that 51.0% of Palestinians still live in detached houses as against the 47.2% living in apartments. There were no regulations as at 1994 to regulate the construction of multi-story residential buildings, several irregular high rise building constructions took place in Gaza until the setting up of the regulatory commission by the PNA (Alsousi, 2005). Despite the many studies in support of the construction of high-rise building to address the challenge of land scarcity, increasing population and shortage of houses in Gaza (Shehab and Kandar, 2017).
There is a need for legislation to enable the PNA to regulate and monitor the erection of these structures to ensure they meet the social and cultural values of the people, among others (Asfour, 2012; Shehab and Kandar, 2017). Although some of these factors tend to be morally-based, it is unwise to separate them from the housing particularly in context of Gaza Strip where people deeply rooted in culture and social values. As earlier noted by Ammar (2014) the factors are namely; (a) social, (b) cultural; and (c) economic factors play a dominant influential role in housing designs in the Gaza Strip. For a society, a house is not just a physical space to live, but a place to socially interact and perform rituals (Rapport, 1980; Rapoport, 2016). Although some areas have been developed since then, they neglect the peoples’ socio-cultural values in the housing designs have created more problems than solutions. The residents deform the structures of these newly developed housing units to make it suitable to their social and cultural needs thereby making the housing units and surrounding unpleasant (Enshassi et al., 2017)

Similarly, socio-cultural values impact housing design. Asfour (2012) has stated that for any housing needs to be adequately met, the objective of the housing project must look beyond the mere provision of housing units to building structures that suit the various social and cultural needs of the potential occupants in context of Gaza. It is highly required to develop a new framework based on the parameters of effectiveness and operationally feasible for designing a housing scheme for the Gaza Strip which necessitates the sustainability housing achievement (Ilesanmi, 2010). Hence, this study is aimed to address some of these challenges by examining the influence of socio-cultural values on housing design towards sustainable community in the Gaza strip. It also seeks to identify how the housing environment can become more sustainable by integrating the social and cultural needs of Gaza residents.
1.3 Problem Statement

The authorities in the Gaza strip primarily concerned about the economic factor of the housing project due to unavailability of material and restraints on building houses due to Israel occupation. Ammar (2014) has elaborated that every housing project consists of three major elements for measurement, namely; (1) the resident, (2) the house; and (3) the regulations responsible for the planning and design of the constructed house.

The government of Gaza, under the PNA, has made several attempts to address housing issues which bring diverse and complex challenges. According to Djebarni and Al-Abed (2000), several factors besides engineering standards influence a house habitability, significantly including, cultural, behavioural and social. The lack of considering of socio-cultural values in housing designs in Gaza has led to several unexpected challenges such as deformation of the built houses by the occupants to suit or adapt to their needs, thereby creating an unpleasant feeling. This disorientation creates a new urban problem in Gaza instead of the desired solution. Consequently, alongside with problems like land scarcity, financing and environmental concerns socio-cultural aspects should be considered first during housing projects (Jabareen and Carmon, 2010). Architectural designs of housing units not aligned with socio-cultural values particularly the adjustments made to the new housing units show that a major problem exists with the space design itself lead to dissatisfaction of residents in Gaza strip (Salha, 2003). Most of the building materials used for the construction of the new housing samples in the Gaza Strip are lack passive heating and cooling for multi-stories building (Haddad, 2010). Ghaffarianhoseini et al. (2014) noted that privacy and optimal use of space were very significant social values among all other values (Al-Bishawi et al., 2017; Allweil, 2018).

This problem is widespread among other sectors in Gaza that are saddled with the responsibility of providing affordable houses for the residents including the Ministry of Housing, United Nations Relief and Works Agency (UNRWA), Palestinian Housing Council, and other cooperative housing projects. The
governments, mostly in developing and under developed countries such as Palestine, usually embark on mass housing projects either directly or in partnership with private, non-profit organizations or cooperatives. The goal of such projects is to meet the housing demand of their citizens, especially the people with the lower-income (Salama, 2006; Enshassi et al., 2017). Since, Gaza Strip, is considered one of the unique housing case in the world (Alatawneh and Germanà, 2015; Enshassi et al., 2017). It has attributed to the incessant wars with Israel that constantly requires reconstruction and re-housing of people affected by such a conflict react to inadequate and scarce resources.

Given the complexity of the housing situation in the Gaza Strip, the government of Gaza is facing other challenges too. Together with lack of socio-cultural consideration housing issues are compounded by poor housing legislations and policies that neglect the social and cultural needs of the residents in the design and planning of housing projects. Asfour (2012) has concluded that social and cultural values are equally important along with the economic aspects. There is a significant relationship between social and cultural factors and socioeconomic status of household with sustainability as these variables have more effects on the sustainability of urban space (Tavassoli and Fathi, 2013). Socio-cultural values are deeply rooted in housing design in Gaza (Jabareen, 2005; Al-Bishawi et al., 2017; Allweil, 2018).

Housing design is a key component of the built environment that plays an important role in sustainable development. Similarly, the living environment, nature, and culture of the people are important aspects in designing houses and the surroundings for humans (Ani et al., 2012). Thus, there is a need to integrate social, cultural factors within the context of housing design ensuring comfortable houses that will improve the quality of life of the residents (Ghaﬀarianhoseini et al., 2013).

The concept of housing design has evolved with respect to both social and cultural values e.g. (Salama, 2006; Silbaugh, 2007; Mohit et al., 2010; Aziz and Ahmad, 2012; Abdul Rahim and Hashim, 2013; Keisler et al., 2014; Makinde, 2015; Rapoport, 2016; Okunola and Amole, 2018). Consequently, each individual of society
has his own housing design that has a strong reflection of its identity and represent a
dominant picture of the historical norms and culture (Awotona and Ogunshakin, 1994;
Fallah et al., 2015). This social sustainability includes the features of the house that
are considered to lower the risks of injury, improve safety and security, and enhance
liveability and family life (Buys et al., 2005; Husin et al., 2015). The housing designs
determine the lifestyle and standard of residents in society. Similarly, the observation
revealed that the experience, social, and cultural background are among the main
factors that brings changes in their lifestyle and environment (Rapoport, 1977;
Lawrence, 1987; Jiboye, 2010).

Few studies empirically examined the links between culture and housing
preferences in context of Palestine e.g. (Jabareen, 2005; Al-Bishawi et al., 2017;
Allweil, 2018). As an important component of the built environment, housing has a
crucial role to play in developing communities. The sustainability of housing
development embraces the environmental, social, cultural and economic aspects of
housing (Chiu, 2004; Rapoport, 2016). Günçe et al. (2008) have further explained the
major characteristics of socio-cultural values which influence housing design. These
characteristics are namely; (1) lifestyle of the people, (2) economic activities of the
people, (3) family structures including the way they relate to neighbours; and (4)
relatives, the traditions, beliefs, and the social cultures of the people. Also,
modernization and development of housing projects must ensure that the social and
cultural dimensions of residents should not be compromised during such projects.
Moreover, the preservation of a community’s social and cultural sustainability aspects
are equally important alongside which are environmental, economic sustainability
(Edwards, 2010). Thus, it is vital for these aspects to be integrated into other contextual
measures if the objective is to achieve affordable and housing designs (Salama, 2006;
Makinde, 2015; Rapoport, 2016).

Based on previous literature this study examines the impact of socio-culture
values on housing design in Gaza strip, and bridged gaps identified in literature. Thus,
this study focuses on socio-cultural factors in explaining housing design in context of
Gaza strip. Socio-cultural values of the people play a very important role defining the
character and identity of any architecture and must be integrated into any housing
design that seeks to be successful (Edwards and Roelofs, 2006; Chiu, 2004; Olayiwola et al., 2006; Joon et al., 2009; Makinde, 2015; Agboola and Zango, 2014; Rapoport, 2016; Al-Bishawi et al., 2017). Besides the socio-cultural perspective, the issue of sustainability cannot be ignored i.e. Gaza Strip has very scarce resources amidst blockades from Israel, and very small landmass with the highest population density (Ammar, 2014; Barakat and Shaban, 2015; Enshassi et al., 2017). There is a growing need for housing to meet the needs of Gaza strip residents. Therefore, this research study bridges the gap and examine the relationship between social and cultural factor with housing design in achieving sustainable community in the Gaza strip.

1.4 Research Questions

The main goal of this study is to propose a framework that integrates the socio-cultural values of the Gazan people for housing design in the Gaza Strip. To achieve this goal, the following research questions shall be fulfilled:

1. What is the relationship between socio-cultural values with housing design in the Gaza Strip?
   a. What is the relationship between social values and housing design in the Gaza Strip?
   b. What is the relationship between cultural values and housing design in the Gaza Strip?

2. How social and cultural values influence housing design in the Gaza Strip?

3. How to develop a housing design framework for developer and policy makers in the Gaza Strip?
1.5 Research Aim and Objectives

Current study aim was to examine influence of socio-cultural values on housing design and developed a framework based on socio-cultural values and housing design in the Gaza Strip. To achieve this research aim were formulated as follows:

1. To investigate the relationship between socio-cultural values and housing design in the Gaza Strip.
   a. To examine the relationship between social values and housing design in the Gaza Strip.
   b. To test the relationship between cultural values and housing design in the Gaza Strip.

2. To identify and further understand how social and cultural values influence housing design in the Gaza Strip.

3. To provide a housing design framework for developer and policy makers in the Gaza Strip.

1.6 Proposed Hypotheses

Based on current study research objectives and comprehensive literature and underlying theories on social and cultural values (family structure, family values, family life style, privacy, religion and attitude beliefs, safety and security) the following hypothesis are proposed.
H1: Social values are positively related with housing design.
H1a: Family structure is positively related with housing design.
H1b: Family values are positively related with housing design.
H1c: Family life style is positively related with housing design.
H2: Cultural values are positively related with housing design.
H2a: Privacy is positively related with housing design.
H2b: Religion attitude and beliefs are positively related with housing design
H2c: Safety and security are positively related with housing design

1.7 Research Significance

Housing design is integral component of built environment. Likewise, living environment, nature, and culture of the people are important aspects that impact the housing design and surroundings (Ani et al., 2012). The concept of housing design has evolved with respect to both social and cultural values e.g. (Aziz and Ahmad, 2012; Abdul Rahim and Hashim, 2013; Keisler et al., 2014; Makinde, 2015; Rapoport, 2016; Roy et al., 2018). Thus, there is a need to integrate social, cultural factors within the context of housing design (Ghaffarianhoseini et al., 2013).

Few studies empirically examined the links between culture and housing preferences in context of Palestine e.g. (Jabareen, 2005; Al-Bishawi et al., 2017; Allweil, 2018). Integrating social, cultural and economic aspects of housing lead to affordable housing design (Chiu, 2004; Salama, 2006; Makinde, 2015; Rapoport, 2016). Socio-cultural values of the people play a very important role defining the character and identity of any architecture and must be integrated into any housing design that seeks to be successful (Edwards and Roelofs, 2006; Chiu, 2004; Olayiwola et al., 2006; Joon et al., 2009; Makinde, 2015; Agboola and Zango, 2014; Rapoport, 2016; Al-Bishawi et al., 2017). Based on previous literature this study examines the impact of socio-cultural values on housing design in Gaza strip, and bridged gaps
identified in the literature. In general, the significant contribution of this study is twofold: (1) Theoretical and empirical development (2) policy and framework implications.

The research investigates impact of socio-cultural values on housing design in the Gaza strip. This study highlighted the interrelationships that exist among the significant social factors (family structure, family lifestyle and family values) and cultural factors (religious beliefs, privacy and safety and security) that influence housing design. Furthermore, this study also proposed a housing design framework and provides major implications for architects, governments’ and relevant authorities to consider socio-cultural values in designing to address the housing problems in the Gaza Strip. The recommendations from this study can be used for taking corrective measures in existing housing planning and design process and to can be served as a guideline for future projects, in benefiting residents of Gaza.

1.8 Scope of the Study

This research aims to introduce the housing design concept in the Gaza Strip as a high population density area but also extremely limited resources due to blockade region. For this study, Gaza Strip was purposefully selected as a representation urban neighbourhoods and refugee camps area are selected as a sample study. There is a growing need for housing at the Gaza Strip because of unique unstable socio-cultural and economic conditions which ultimately impact in housing sustainability. The study population is urban dwellers and refugee camps. The triangulation method employed in this study and both quantitative and qualitative data was collected from residents of Gaza including five Governorates. Quantitative data was collected through survey questionnaires designed on likert scale based on socio-cultural and housing design as this study variables. The socio-cultural factors were evaluated under six variables, including family structure, family lifestyles, family values, religion attitude and beliefs, privacy and safety and security. Housing design was measured through space
and design, land space design and physical housing features based on a 5-point Likert scale. The previous research studies focused only on economic issues related to housing in the specific area of concern. This study focuses on socio-cultural values and their impact on housing design toward sustainable community in the Gaza Strip. Furthermore, the findings of this study can be generalized to the context of Gaza in specific and other Palestinian territories in general how residents prefer to design houses based on their socio-cultural values and preferences. In summary, this study bridges the research gaps identified in literature based on socio-cultural as vital factors influencing housing design. Finally, this study also proposed some recommendations for Palestine government and UNRWA to address challenges of housing projects and adopting housing design by considering socio-cultural values.

Figure 1.2: Current Study Outline
Figure 1.2 illustrates that first problem and issues based on socio-cultural values and housing design were discussed. Research objectives were formulated based on research questions. Next comprehensive literature review was conducted based on socio-cultural values and their impact on housing design and conceptual model was produced and supported by underlying theories. Current study has used both quantitative and qualitative methods for data collection and analysis. Next, both quantitative and qualitative data was integrated based on triangulation design. Quantitative findings were supported by qualitative results. Finally, conclusion was drawn from discussion.

1.9 Thesis Organization

Overall, the study is supposed to consist of five chapters. First chapter provides an overview of research undertaken; it begins with a general introduction to the study, the background of the study, problem statement, research questions and objectives, the significance of the study, the scope of the study and lastly the organization of the thesis. The second chapter explains housing design and social and cultural values in details. In addition, this chapter also shed light on major underlying theories for supporting the relationship between socio-cultural values and housing design. Next chapter three discusses and proposes research methodology for conducting this study. It further discusses the research paradigms, triangulation design, sampling strategy and techniques, both quantitative and qualitative data collection and analysis methods. Chapter four presents data analysis and results interpretation based on study model. Chapter four explains results of both quantitative and qualitative data analysis. Quantitative phase 1 begins with data screening, normality and outlier assessment followed SEM analysis using AMOS 22. Similarly, qualitative phase 2 examines qualitative data through thematic analysis using sophisticated software Nvivo 11. Finally, chapter five presents discussion and findings of this study. Both quantitative and qualitative objectives are discussed in reference with previous studies.
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