FACTORS AFFECTING NON-COMPLIANCE WITH PLANNING STANDARDS IN THE RESIDENTIAL AREA OF BENGHAZI CITY, LIBYA

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FACTORS AFFECTING NON-COMPLIANCE WITH PLANNING STANDARDS IN THE RESIDENTIAL AREA OF BENGHAZI CITY, LIBYA

by

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LIST OF ABBREVIATIONS

FAR	Floor Area Ratio
BCR	Building Cover Ratio
TRA	Theory of Reasoned Action
TRC	Regulatory Compliance Theory
CMV	Common Method Variance
APC	Average Path Coefficient
ARS	Average R-Squared
AVIF	Average Variance Inflation Factor

FAKTOR-FAKTOR YANG MEMPENGARUHI KETIDAKPATUHAN KEPADA PIAWAIAN PERANCANGAN DI KAWASAN PERUMAHAN BANDAR BENGHAZI, LIBYA

ABSTRAK

Piawaian perancangan merujuk kepada kod atau peraturan untuk keperluan ruang, spesifikasi tapak, ketinggian dan kriteria lain mengikut keperluan pihak berkuasa tempatan bagi tujuan pembangunan hartanah. Isu ketidakpatuhan piawaian perancangan dilaporkan di banyak negara membangun yang berdepan peningkatan pertumbuhan penduduk dan pembandaran. Untuk menangani jurang penyelidikan antara keperluan perumahan penduduk dengan piawaian perancangan sedia ada, kajian ini meneliti faktor-faktor yang boleh mempengaruhi tahap pematuhan piawaian perancangan, khususnya di kawasan kediaman bandar Benghazi, Libya. Kajian ini membangunkan kerangka kerja konseptual berdasarkan pendekatan literatur bibliometrik dan sistematik untuk mengenalpasti lima faktor utama yang mempengaruhi pematuhan piawaian perancangan; iaitu faktor pentadbiran, perundangan, sosial, ekonomi dan demografi. Kajian ini menggunakan reka bentuk kaedah campuran untuk pengumpulan data termasuk tinjauan soal selidik seramai 359 ketua isi rumah dan temu bual separa berstruktur dengan empat pegawai dan pihak berkuasa perancang bandar Benghazi, Libya Keputusan kajian yang diperoleh menggunakan perisian Warp PLS .6 menunjukkan tahap pematuhan yang agak rendah di Benghazi kerana faktor ekonomi, seperti kekurangan skim perumahan dan pinjaman perumahan; faktor piawaian saiz plot yang tidak sesuai untuk menampung saiz isi rumah yang besar; faktor pentadbiran pemantauan dan penguatkuasaan piawaian perancangan yang tidak cekap; dan faktor sosial iaitu kekurangan kesedaran tentang

kepentingan piawaian perancangan. Pihak berkuasa perancang di bandar Benghazi wajar meneliti semula piawaian perumahan semasa untuk membolehkan pemahaman yang lebih baik dan menjadikan piawaian ini lebih sepadan dengan keadaan sosio-ekonomi penduduk.

FACTORS AFFECTING NON-COMPLIANCE WITH PLANNING STANDARDS IN THE RESIDENTIAL AREA OF BENGHAZI CITY, LIBYA

ABSTRACT

Planning standards refer to codes or regulations for space requirement, site specification, height and other criteria as required by the local authorities for purposes land and property development. Issues of non-compliance with planning standards have been reported in many developing countries with increased population growth and urbanization. To address the research gap between residents' housing needs and existing planning standards, this research examines those factors that could affect the level of compliance with planning standards, specifically in the residential area of Benghazi City, Libya. This research develops a conceptual framework based on bibliometric and systematic literature approaches to identify five major factors that affect compliance with planning standards; they are administrative, legislation, social, economy and demography. This study employed a mixed-method design for data collection including a questionnaire survey among 359 heads of households and semi-structured interviews with four officials and planning authorities of Benghazi City, Libya Study results obtained using Warp PLS .6 software indicate lower level of compliance in Benghazi due to economic factors, such as shortage of housing schemes and housing loans; factors of inappropriate standards of plot size to accommodate large household size; administrative factors of inefficient monitoring and enforcement of the planning standards; and social factors of lack of awareness on the importance of planning standards. Planning authorities in Benghazi City should re-examine current residential standards to allow better understanding and make these standards more appropriate to match the residents' socio-economic conditions.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Non-compliance with planning standards is a widespread dilemma in most developing countries (Arku, et al. ,2016; Omollo, 2020). Non-compliance with planning standards occurs when a structure, layout, or project breaches the planning standards, zoning regulations, or land-use standards of the master plan (Sundaresan, 2017). The character of the appearance of the settlements is specified by the planning standards, which include limitations on plot size, frontages, depths, and road widths, in addition to land-use requirements. In other words, planning standards regulate what activities are allowed or not on a plot or in a given area (Adamolekun et al., 2017). The issue of non-compliance with planning standards is a significant challenge, as it has consequence not only for those who don't comply with the standards but also for law-abiding individuals residing in the same area. This is due to the adverse economic consequences that violations have on the value of housing and land.

This research investigates the factors affecting compliance with residential planning standards in an authorized urban area. This research will aid in identifying the reasons for the decline in compliance, decreasing the adverse effects of planning deviation, and improving compliance. In addition, the cost of neglecting this issue increases over time. This chapter includes the research field's background, the problem statement, the significance of the research, the research questions and objectives, the research's scope, methodology, and structure.

1.2 Background of study

Planning refers to the practice of outlining an optimum alternative option. When planning standards are considered defective, their enforcement and compliance will validate the application of an incorrect alternative. Therefore, standards should be developed based on accurate data for a particular area and time frame before considering other relevant factors. It is inconceivable to accept poor standards since they are unaffected by other factors. However, it is conceivable that the enforcement system is weak because several elements influence it, as the enforcement system has identified it as a weak link in the planning system (Calor et al., 2015). Planning is indispensable in urbanisation and has multiple effects on land and its attached objects. Guiding future development is the ultimate goal of planning based on available data. If the development deviates from the plan, then the function of planning has failed (Offei et al., 2018). According to its scale and function, planning can be categorised into spatial, regional, urban, physical and land use planning, all of which share the sustainability support and the sustainability achieved when the planning is executed efficiently during the elaboration stage (Racheal et al., 2014).

Planning is translated and laid down as standards that are formulated to control the effects of mankind on their environment (Adamolekun et al., 2017). Planning procedures and quality control include several aspects, such as the arrangement of appearance, provision of infrastructure, zoning division, building facilities, urban characteristics, improvement of public health and ensuring short- and long-term security, all of which are set as planning standards and regulations (Adamolekun, & Isiwele, 2017; Arimah & Adeagbo, 2000; Srkheylai, Sharifi, Rafieian, Bemanian, & Murayama, 2012; Wilson, An, & Evdorides, 2006). The success of a planning system rely on the level of compliance (Baffour et al., 2014). The influence of these standards

casts a shadow over the quality of life of the entire society (Ishaqee et al., 2019). The widespread disregard of these standards also has devastating effects as manifested in low quality of life, public health decline and inconsistency in the harmony of urbanisation appearance. Non-compliance with these standards is deemed a chronic issue with significant costs.

Every society, town, city or urban area has unique characteristics and cultural features (Mattoni et al.,2015). Therefore, a standards that suits each of these areas should be formulated. However, such standards can only be formulated after the consequences of all the related standards are reappraised and after the socio-economic circumstances of the community are considered.Non-compliance can be manifested as a multifaceted dilemma that cannot be addressed by planning authorities alone given the influence of social, economic and administrative factors (Alnsour & Meaton, 2009; Ochieng Omollo, 2020; Poku-boansi, 2021). Seeing that compliance with planning standards is an outcome of multiple factors, using a single factor approach for building law compliance would be insufficient (Offiong, 2017). Demography may also be partly responsible for compliance (Abubakar et al., 2013). Non-compliance and breach of planning norms are inevitable given the lack of housing, planning schemes and infrastructure (Srkheylai et al., 2012). These deficiencies also have economic, social and governance implications. To address or alleviate this issue, an investigation of all relevant circumstances is necessary.

Non-compliance with planning standards is a significant problem faced by many countries, including Nigeria (Arimah et al., 2000), Bangladesh (Nahrin, 2008), Tanzania (John, 2018), Portugal (Calor et al., 2015), Jordan (Alnsour et al., 2009), Iraq (Ishaqee et al., 2019), Ghana (Boamah, 2013; Offei et al., 2018; Poku-boansi, 2021), India (Sundaresan, 2017), Iran (Srkheylai et al., 2012) and Argentina (Monkkonen &

Ronconi, 2013), just to name a few. However, developing countries account for the majority of planning violations (Arku, Mensah, Allotey, & Addo Frempong, 2016; Aziz & Ph, 2018; Ziem, Gordon, Yiridomoh, & Bebelleh, 2020).Libya is not an exception (UN-Habitat, 2016). Similar to other developing countries, Libya faces a low level of compliance with planning standards due to the decline of relevant urban planning standards that are in line with the needs of residents.

1.3 Problem statement

Planning schemes for subdivisions and urban areas in Libya have been violated due to their inconsistency with the population growth demands of the country (UN-Habitat, 2016). The decline of the compliance level with planning standards negatively affects urbanisation harmony, urban appearance and the environment and may even threaten people's lives (Offiong, 2017). Moreover, the efforts, financial resources and building materials used in illegal settlements, the violation of building codes and other aspects of physical planning encroachment hinder modern urbanisation (Zegarac, 1999). Planning deviation may result in poor life quality, environmental degradation, emergence of informal settlements and collapse of buildings (Charagu., 2013; Ishaqee & Albazaz, 2019; Racheal, Kuria & Mubea, 2014). Accordingly, planning studies have devoted themselves to determining and examining those factors that contribute to planning violations (Alnsour et al., 2009; Arimah & Adeagbo, 2000; Arku et al., 2016; Atamewan, 2019; Hajialirezalou, 2018; Srkheylai et al., 2012; Sundaresan, 2017). The literature review indicates that the reasons for the non-compliance and contravention of planning standards differ by location. These reasons attributed to social, economic, administrative, legislative and demographic factors (Abubakar et al., 2013; Alnsour et al., 2009; Poku-boansi, 2021).

Researchers have identified five main groups of factors that play essential roles in defining compliance with planning standards, with those factors related to administrative and management impact being the most important (Arku et al., 2016; Srkheylai et al., 2012; Sundaresan, 2017). Another critical factor is economic status, which may involve financial difficulties (Arku et al., 2016; Ishaqee et al., 2019; Sarkheyli et al., 2013), income level (Atamewan, 2019; Monkkonen et al., 2013) and financial facilities (Alnsour & Meaton, 2009). Planning or formal building laws may have been largely besieged in traditional societies, particularly in developing nations; these social characteristics may impede the ability of planning authorities to enforce standards (Poku-boansi, 2021; Robert, 2009). Planning standards may also contribute to urbanisation violations when they have a foreign or colonial background and do not reflect the needs of local residents (Arimah et al., 2000; Sundaresan, 2017).

No-compliance with planning standards touch upon several aspects of the planning authorities' domain and have economic, social and demographic consequences. Non-compliance may be attributed to many factors, including the planning itself, which is supposed to be a solution and not a part of the problem (Goodfellow, 2013, as cited in Arku et al., 2016). Additionally, the general disregard for planning norms may result from implementation and planning practices; therefore, instead of adopting a theoretical approach, each instance of deviation should be examined as a specific case that requires a unique solution (Sundaresan, 2017).

Similar to any city in Libya, Benghazi has reported a significant amount of planning violations and declining compliance levels (UN Habitat, 2018), and was thus selected as a case study in this research. Planning deviation in Libya started to emerge over the recent decades. Similar to other Arabic countries, Libya has distinct cultural features that must be reflected in its planning standards, which should be formulated

for the people and by the people. Most Arab countries are influenced by colonialism, hence challenging them in modifying and rearranging their western planning systems to fit their own cultural contexts (Alnsour & Meaton, 2009). In terms of socio-cultural aspect, the Libyan society is based on tribal kinship, and communities maintain their traditional cultural ties. Therefore, these cultural features and characteristics, which are translated into social activities, must be considered when developing planning standards.

According to Rukwaro (2009), whilst the Kenyan community is based on traditional ethics and clans, the planning standards in the country have ignored the need of residents for privacy and the visitation of guests or relatives, both of which require additional space. Libyan households are quite large, increasing from 6.3 persons per household in 1973 to 6.9 persons per household in 1995. Meanwhile, the household size in Benghazi increased from 3.9 persons per household to 10.9 persons per household over the same period, thereby increasing the demand for additional space (Abdalla, 2007). Alnsour (2009) pointed out that household size also affects compliance level, that is, families are driven to violate planning regulations to accommodate additional family members. Accordingly, large household size has been identified as an important factor that motivates the non-compliance with planning standards (Alnsour, 2009). Plot expansion and additional spaces are needed as long as households continue to grow to accommodate their current and future needs (Arimah et al., 2000; Offei et al., 2018; Rukwaro, 2009; Srkheylai et al., 2012). The deficiency of the existing standards becomes increasingly obvious as household size grows with time (Joshi et al., 2009). Time is crucial when managing planned deviations since it pertains to mitigating the high cost of effort and potential material utilized illegally and the effort necessary to resolve such informality. Therefore, the existing standards

must be reappraised before the extent of violations reaches its peak (Kombe, 2005). The literature addressed several gaps regarding the issue of non-compliance with planning standards that need to be filled in subsequent studies. Based on the data gathered from the case study, this research attempts to fill these gaps to provide a greater understanding of the issue that has not received sufficient consideration. The next paragraph emphasised these gaps.

A limited number of studies on non-compliance with planning standards are highlighted by the results of the literature review. Several recommendations for future research on this area are offered (Poku-boansi, 2021). The literature overlooked planners' viewpoints on land use planning deviations, so further research studies that look at planners' perspectives are encouraged (Poku-boansi, 2021). Scholars highlighted the need for future studies to incorporate residents' perspectives of non-compliance with planning standards (Mwangi, 2016). Scholars emphasised the significance of investigating the issue of non-compliance in the Arab world and comparing and generalising the results, considering the parallels between Arab nations.(Mohammad, 2006). Regarding the urgent necessity to research the issue of planning degeneration in developing countries, scholars emphasised the importance of investigating the problem of non-compliance in developing nations (Atamewan, 2019). A knowledge gap has hitherto existed regarding compliance with planning standards; this gap must be evaluated by academics spatially and statistically (Ochieng Omollo, 2020). Academics advocate for additional research on the societal factors that contribute to non-compliance (Poku-boansi, 2021).

The planning standards for residential areas in Libya encompass several standards, including setbacks, plot size, frontage length, and land use. These standards have been breached, and most property owners have not complied with them;

consequently, the level of compliance has declined (UN-Habitat, 2016). Therefore, the research problem of this research was based on the issue of non-compliance with residential planning standards. This research aims to identify the factors that affect the compliance level so that future urban strategies can deal with this issue.

1.4 Research Gaps.

Libya faces a problem related to non-compliance with planning norms and standards (UN-Habitat; Minsty of housing and utilities, 2016). This issue may grow worse due to various reasons, thereby necessitating the identification and examination of all variables that are capable of mitigating risk or alleviating the consequences of planning deviations. The cost of ignoring this problem also increases with time. Meanwhile, the socio-cultural context should be re-evaluated when incorporating cultural identification into the extant planning standards to preserve the cultural identity and social habits of the Libyan society, which has violated its own planning standards and regulations. This study aims to help Libya, specifically the city of Benghazi, in resolving this problem. The city is preparing for its “Reconstruction Benghazi” project, which aims to reconstruct the city following the destruction caused by war.

This research also aims to address the gap between planning standards and the needs of residents by establishing adequate standards. Planners and residents will be investigated independently to determine the maximum level of satisfaction that residents may achieve with the minimum level of planning, the environmental requirements and the financial limitations. This investigation marks an important first step towards revising the current standards in Libya by balancing the needs of its

citizens with the planning, environmental and economic requirements instead of merely focusing on one side (i.e. the planning requirements or needs of residents).

A conceptual framework comprising those factors that control the extent of compliance with residential planning standards is also built based on the results of the literature review to examine the five main groups of factors that collected from the literature review and to evaluate the current compliance level in Al-Fatah district in Benghazi city. This comprehensive framework involves factors and variables that are collected from different countries which are mostly from the developing countries and across different periods from 1967-2021.Results of the literature review highlight a limited number of studies on non-compliance with planning requirements. Several recommendations are then proposed for further research into this topic.

Poku-boansi (2021) called for a further investigation of those factors that contribute to land use planning non-compliance in developing countries and those societal issues that contribute to non-compliance:

> 'Suggests that future studies need to thoroughly identify and discuss the factors of non-compliance of land use planning in developing countries and as well as those that result in the failure to adhere to the tenets of the social complexity theory which also contribute to non-compliance.' (p. 10)

With regard to planners' perspectives towards land use planning deviations, which were employed in this study to elicit the opinions of planners and planning authority staff regarding planning violations, Poku-boansi (2021) stated

> 'There is also the need for future research works to examine land use planners' perspectives on their appreciation or otherwise, on the complexities in the environment within which land use planning takes place so that guided by the tenets, they can achieve the ultimate goal of land use planning.' (p. 10)

Mwangi (2016) emphasised the importance for future research to incorporate the perceptions of residents towards non-compliance with planning standards:

> 'The scope of this research was limited to perceptions of planners and developers. However, there is another very vital stakeholder in these developments – the residents. It would be interesting to get their perceptions: how is it living in those developments which have non-compliance issues? What are their relationships with planners and developers? This could potentially unearth rich data with regards to the effects of non-compliance with planning laws and regulations on those who live in the residential environments produced.' (p. 327)

Mohammad (2006) underscored the importance of examining the topic of non-compliance in the Arab world and comparing and generalising the results given the many similarities amongst Arab countries:

> 'Future research needs to be extended to other residential zones in order to generalize the results. However, an interesting area of research would be to examine residential standards in other Arab countries.' (p. 265)

With regard to the complexity and perplexity surrounding the issue of planning violations, Mohammad (2006) added

> '…encourage urban researchers to conduct further empirical studies into illegal housing and urban planning to clarify some of the complexity and confusion that accompanies these issues.' (p. 266)

Atamewan (2019) highlighted the urgent need to investigate the issue of planning deviation in developing countries:

> 'There is an urgent need to reorganize the degenerated urban setting across developing countries.' (p. 210)

Sundaresan (2013) called for further research into the issue of planning deviation:

> 'Nevertheless it is left to future research to examine how these processes (process of planning violations) transpire in different social and economic geographies.' (p. 305)

Sundaresan (2013) added that

> 'The ways in which planning networks operate among different social groups is a topic not attempted here due to the limited scope of this work. However, through proposing networks as a frame of analysis this thesis lays out a conceptual direction to examine such empirical problems in detail in the future.' (p. 306)

With regard to the use of the local income level to evaluate non-compliance with planning standards, Mohammad (2006) stated

> 'Another interesting research issue is to determine the impact of compliance with residential standards on local income. Such assessments would provide similar or conflicting results.' (p. 266)

In the same vein, Pugh (2016) added

> 'Variables that incorporate demographic or socio-economic factors such as household income or a normalization of household income against the assessed property value would be useful.' (p. 89)

Meanwhile, according to Rakodi (2001),

> '…attempts to improve the understanding and analysis of the inter-related components of the urban development process, in order to arrive at more appropriate priorities and set of policies.' (p. 214)

Few et al. (2004) stated

> 'Future studies need to be longitudinal to help policy makers understand what happens to residents of housing interventions.' (p. 440)

Rakodi (2006) again noted

> '…more attention needs to be given to the ways in which people organize their lives, engage in social and economic relationships, organize space and produce places at the local level.' (p. 316)

Omollo (2020) stated that evaluating the level of compliance remains a debated topic amongst the academia:

> 'to academia, it deepens the debate on development control by practically demonstrating how compliance with the planning standards that regulate building lines may be statistically and spatially evaluated, thus addressing a gap in knowledge that has hitherto existed.' (p. 108)

Twum-darko and Mazibuko (2015) highlighted the following limitations of studies on non-compliance with planning standards:

> 'With the limited and insufficient studies conducted around Building Regulation… Future research and developments should further focus on:
>
> i. Analyzing the Regulations, regulatory framework. ii. Evaluating the effectiveness of the role which the Building Regulations, and its business processes, can play in ensuring the safety of building occupants.' (p. 683)

Elfarnouk (2015) called for further studies on planning violations in Libya, particularly 'squatter settlements', which represent a form of illegal settlement:

> '...More detailed data would have been valuable to address the phenomenon and should be provided in future. Based on that trend, further studies with more detailed data should continue. Further assessment of the squatter settlements in the Libyan context suggests that the dominant results of this dissertation showed the process of squatter settlements will continue…' (pp. 174–175)

The United Nations' much-publicised aim to enhance sustainability recommends that all countries should promote an inclusive and sustainable urbanisation and strengthen their capacity for an integrated and sustainable human settlement planning by 2030.

Empirically investigating urban planning issues at the local level can help local planning authorities cope with their planning challenges. For instance, Ahmad and Meaton (2015) suggested that empirically investigating municipalities in Jordan can help municipal planners make effective decisions:

> 'Municipalities should proactively engage with empirical research. Future research should be conducted… Further research should measure the relationship between decision making policy and research policy in other developing countries, where comparative studies can enrich knowledge and generate new ideas.' (p. 211)

The limitations of extant studies on residential planning standards violations have been analysed in light of the results of the literature review and the above statements to support the needs of this research. The gaps in the literature can be summarised as follows:

According to the literature review and bibliometric analysis results, only few studies have explored non-compliance with planning requirements (Twum-darko & Mazibuko, 2015). This study examines 17 independent variables that are categorised into administrative, social, economic, legislative and demographic factors. The proposed comprehensive framework includes the most significant factors affecting compliance that have not been investigated in detail in previous research.

The reviewed literature has paid little attention to those cultural and social aspects that influence compliance (Poku-boansi, 2021).Assessing socioeconomic variables, such as household income, is useful for understanding the issue of non-compliance (Mohammad, 2006; Pugh, 2016).Whilst taking the perspective of planners towards the planning deviation phenomenon is encouraged, such perspective has often been ignored in the literature (Poku-boansi, 2021).The literature review emphasises the need for planning deviation studies to include residents to bolster their findings (Mwangi, 2016).

This research was founded on the Theory of Regulatory Compliance (TRC), which focuses on the need to comply with planning standards. According to Fiene (2016), the theory first developed in the 1970s, when the correlation between compliance with rules and best-practice standards and outcome data emerged. This comparison showed that compliance with specified regulations and standards contributed to favourable outcomes. Concerning the current study, TRC justifies why residents of Benghazi city should comply with the planning standards that regulate the urban planning requirements. The objective is to secure sustainable spatial urban development. To achieve this, the planning authority uses planning departments to guarantee that all citizens comply with planning standards relating to setbacks, lot size, frontage length, and land use. Further, in an attempt to enforce regulatory compliance, the Ministry of Housing and Utilities Law No. 189 (2003) states that noncompliance with planning standards will result in a fine, imprisonment, or both and is considered illegal development. Compliance with planning standards is therefore realized through statutory regulatory compliance.

The conceptual basis of this research was derived from a review of the literature that emphasized the most relevant factors affecting the compliance level in various nations and periods. It is worth emphasizing that most studies on non-compliance were conducted in developing and Arabic countries, characterized by similar contexts. In addition, the conceptual underpinning represented elements from Libya based on a limited number of studies and government documents relating to the topic under investigation, which covered housing and squatter settlements. Consequently, the conceptual basis was derived from studies pertinent to the research regarding geographical and sociocultural contexts.

This study employed two literature-based frameworks. Alnsour and Meaton (2009) categorised variables into three groups: socio-economic factors, administrative practices, and uncertainty of standards. Abubaker et al. (2013) added demographic factors to Alnsour and Meaton's (2009) categories (Figure 1.1). The conceptual framework of this research combined these two frameworks and split socio-economic aspects into social and economic groups. All factors were considered social, economic, administrative, legislative, and demographic.

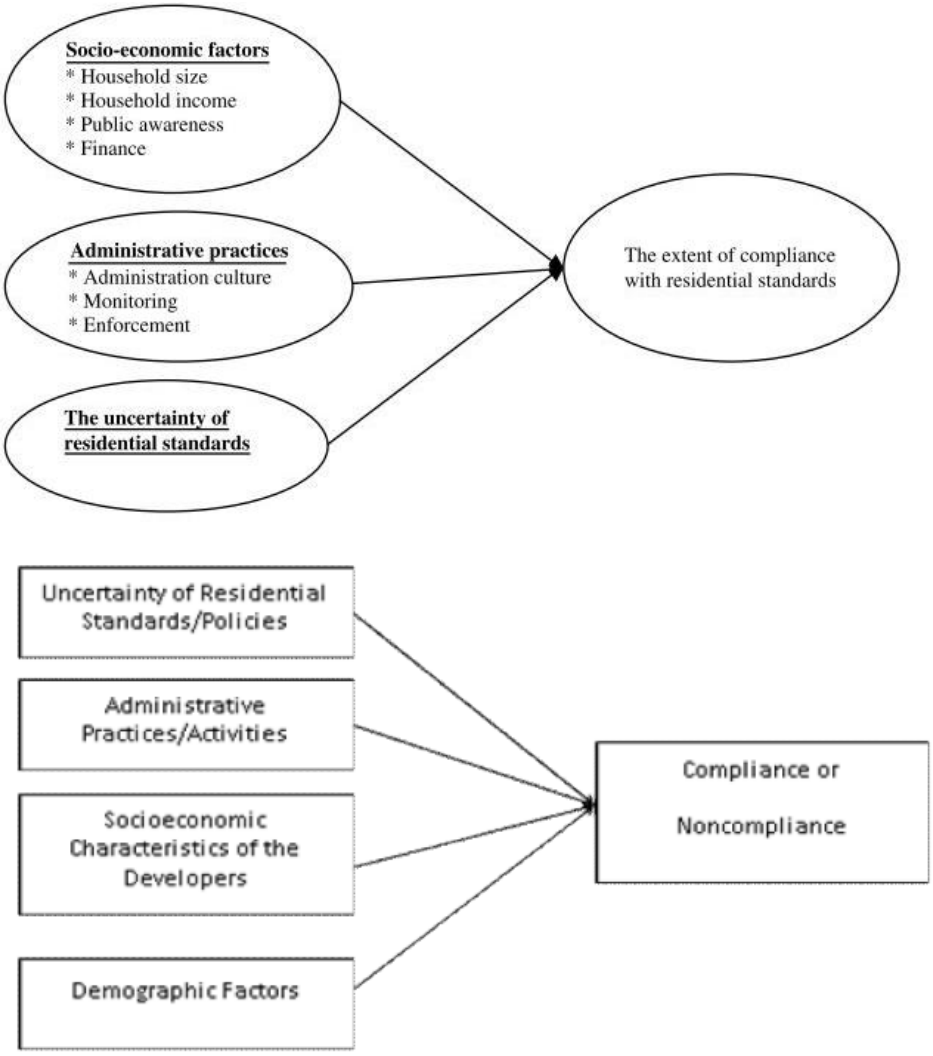

Figure 1.1 Adopted frameworks

1.5 Research objectives

This research aims to identify the reasons and factors that affected the level of compliance with residential planning standards in Benghazi City in particular and in Libya in general, given that all the Libyan cities and any permitted urban area are governed by the same planning authority, which uses the planning standards.

The data collected from the questionnaire survey and interviews are used to fulfil the following objectives:

1. To determine those factors that influence the non-compliance of planning standards;
2. To address the gap between urban planning standards and needs of residents;
3. To assess the level of compliance with residential planning standards.

1.6 Research questions

This research aims to answer the following questions:

1. What are the fundamental factors of non-compliance with residential planning standards in Libya, particularly in Benghazi?
2. Do the existing residential planning standards fulfil the needs of residents?
3. What is the extent of compliance with residential planning standards in Benghazi?

1.7 Research scope

This research examines the non-compliance with residential planning standards in Benghazi, Libya. This work focuses only on those dwellings and plots that are subject to the relevant standards that formulated to control the residential area in Libya, such as for setbacks, plot size, frontage length and land use. Given that dwellings in Libya must be owned by a single household, apartments are excluded from this study. This research scope is only for the authorised urban areas permitted

by the planning authorities and subjected to the residential planning standards. Based on the previous scopes, the research can examine the non-compliance in terms of the standards and then identify the factors that affected the compliance level, address any gap between the standards the residents need and finally evaluate the compliance level.

1.8 Research methodology

The data collection approach and research method adopted in this study were selected based on the research problem, the individual experiences of researchers and the suggestions of Cresswell (2014). Qualitative and quantitative methodologies have their own strengths and weaknesses, and not one of them is better than the other. The quantitative approach is more appropriate for large-scale surveys, whereas the qualitative approach is mostly exploratory in nature (Dawson, 2002).

As any research which requires specific philosophy that directs and guides the study to the conventional approach, this research toe the line of the scientific procedures of methodology selection. The selected approach has three components, namely, the philosophical worldview, methodology design and research method (including data collection and analysis). The philosophical worldview, which serves as a compass that guides the selection of the proper methodology, can be post-positivist, constructivist, transformative or pragmatic (Cresswell, 2014). This research adopts a pragmatic worldview that is characterised by several points. Cresswell (2014) described the pragmatic worldview as a mixed-method approach that combines the quantitative and qualitative approaches for the same research. This philosophy grants the researcher freedom to choose any procedure to achieve the aims of his/her research.

Accordingly, this research adopts both quantitative and qualitative approaches (Tahakkori et al., 1998). To identify the gap between the needs of residents and planning standards, both perspectives of the residents and the planners and planning authority will be will be investigated. Data related to the needs of residents were obtained from the residents using a quantitative approach (i.e. surveys with close-ended questions rated on Likert-type scales) given the large size of communities. Meanwhile, data on planning standards were collected from planners and planning authorities using the qualitative approach (i.e. semi-structured interviews) given the relatively small population size.

In this research, the mixed method was used for several reasons, including the following: to adequately meet the research objectives, which cannot be achieved unless all relevant aspects of the issue under investigation are investigated. Accordingly, the issue of non-compliance is related to the residents who breach the planning standards on the one hand and the staff of the planning authority who are responsible for their knowledge of the planning standards, monitoring and enforcement, and supervising the construction of the properties on the other. Even though the second research question begins with "Do," its tenor necessitates addressing it from the perspectives of residents and planning staff; otherwise, the objectives will not be properly attained, and the research questions won't be adequately answered. The quantitative approach cannot capture data pertaining to informal activities, giving researchers insufficient knowledge of these activities (Du Toit et al., 2017; Gaber, 1993).The third research question refers to the level of compliance, which is the dependent variable of the framework that is influenced by the independent variables; therefore, it presents the result of the compliance level; it is quantitative as the residents are asked to determine if they comply with the planning standards based on four standards, including front

setback, backward setback, length of frontage, and the use of the house, whether for residencies use only or residential and commercial.

1.9 Terminology used in this study

Non-compliance: Non-compliance refers to the failure to comply with planning standards; the level of compliance can range from high to medium to low (Alnsour et al., 2009).Alnsour stated that "A range of academic studies from different disciplines has resulted in different emphases and influences and various labels including unauthorised, uncontrolled, unplanned, unorganised, informal or illegal urban housing have been applied to describe housing outside normal regulations. All these labels share one characteristic – the non-compliance with planning standards and regulations" (p. 301). Compliance with planning criteria is also indicative of the control and direction planning authorities have over the entire urban development process. Using planning standards to provide adequate housing conditions and infrastructure is a priority for planning authorities (Alnsour et al.,2009).

Planning: Rakodi (2009) defined the planning as the Planning implies the identification of problems, the exploration and analysis of alternative courses of action, and the making of decisions. Planning can be described as a phase of preparing for the future. If future development is successfully controlled, then the aim of planning has been achieved : otherwise, the planning is considered a failure (Offei et al., 2018).

Planning Standards: Planning standards specify the minimal requirements that must comply during the design and construction phases (Ochieng, 2020; Raja, Jayakkumar et al., 2016). These standards are designed to guide the growth of urban development. Implementing construction works without authorization constitutes an offence (Jimoh et al., 2017).

Residential Area: The regulatory component of the land administration paradigm, land use planning ensures the sustainable use of land as a natural resource. Commonly, land use plans are implemented and enforced through zoning and supplemental regulations. It generates the conditions necessary to develop a land use and ownership type that is environmentally sustainable, socially just, desired, and economically sound. Zoning eliminates conflicting uses by protecting the environment, providing amenities, and controlling nuisances, so increasing the value of land. Thus, residential areas are protected from the incursion of commercial and industrial operations, while the orderly growth of commercial and industrial regions is promoted (Offei et al., 2018).

1.10 Research structure

This doctoral dissertation is organised as follows:

Chapter 1: Introduction

Chapter 1 describes the issue of non-compliance with and violation of residential planning standards and regulations. This chapter also presents the background, gaps, objectives, problem, significance and questions of this research.

Chapter 2: Literature Review

Chapter 2 reviews the literature on planning violation and non-compliance with planning standards and explores how scholars describe these problems. This chapter also discusses the involved factors and variables in detail, their respective categories and the different forms of planning violations. This chapter explains the development of the conceptual framework through a bibliometric analysis and systematic review, which are conducted using the Scopas and Google Scholar databases.

Chapter 3: Planning Authorities and Urban Planning System in Benghazi, Libya

Chapter 3 discusses the planning context and residential standards adopted in Benghazi, Libya, presents a general overview of the urban planning history of Libya, and characterises the urban development and planning violations in Benghazi. This chapter also explores the current situation of planning authorities in Libya in general and in Benghazi in particular.

Chapter 4: Research Methodology

This chapter also presents the selected research approach, research philosophy, research design, methodological requirements and data collection methods.

Chapter 5: Results and Data Analysis

This chapter presents and analyses the quantitative data collected from residents with support coming from the qualitative interview data. The characteristics of households and the demographic data, including the state of houses and other data related to the construction process, are provided to support the findings from the quantitative and qualitative research.

Chapter 6: Discussion

This chapter discusses the questionnaire and interview findings to fulfil the first and second objectives of this study, which are to determine those factors affecting the compliance level in Benghazi and to address the gap between the extant planning standards and the needs of residents. The findings will be presented and discussed in the context of pragmatics.

Chapter 7: Conclusion

This paper concludes by presenting implications that can help academics, planners and managers of planning agencies in Libya in dealing with non-compliance with planning standards.

1.11 Summary

On the basis of the literature review, the issue of non - compliance has been introduced in this chapter to demonstrate the impact of this issue on the urban area and society in general. This issue has been described by presenting evidence of its existence in Benghazi, Libya, as well as the harmful effects of non - compliance with planning standards. The study's scope has been defined as focusing on only the permitted urban area. The methodology of this research, which utilised a mixed-method approach to fulfil the research objectives, has been presented. On the basis of the academics' future studies, research gaps and research significance have been highlighted.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Compliance with planning standards is also indicative of the control and direction planning authorities have over the entire urban development process. Using planning standards to provide adequate housing conditions and infrastructure is a priority for planning authorities (Alnsour, 2009). Urban planning Standards guide land use development, infrastructure development, building construction, utility provision, etc. Planning standards are intended to control the whole nature of the urban environment, including the appearance and placement of buildings and facilities, in order to promote economic efficiency, practicality, and aesthetic appeal (Arima, 2000). Planning regulations are essential for achieving sustainable urban growth and ensuring the safety and wellbeing of societies (Boamah et al, 2012)The deterioration in compliance with planning standards has a severe impact on urbanisation harmony, urban appearance, and the environment, and may even endanger the lives of people (Offiong, 2017). In addition, the labour, financial resources, and building materials employed in illegal settlements, as well as the violation of building codes and other aspects of physical planning invasion, impede the modernization of urban areas (Zegarac, 1999). Poor life quality, environmental deterioration, the rise of informal settlements, and the collapse of buildings may occur from planning deviations (Charagu, 2013; Ishaqee et al, 2019; Racheal et al, 2014).