

# A PROPOSED CLASSIFICATION OF THE FACTORS AFFECTING THE LEVEL OF COMPLIANCE WITH RESIDENTIAL PLANNING STANDARDS AND REGULATIONS IN DEVELOPING COUNTRIES

Saaed Awad Abrabba Saaed<sup>1</sup>, Nurwati Badarulzaman<sup>2</sup>, Diana Binti Mohamad<sup>3</sup>

<sup>1,2,3</sup>School of Housing, Building & Planning, Department of Urban & Regional Planning, University Science Malaysia, 11800 Penang, Malaysia

Corresponding author: [phd.saaed@gmail.com](mailto:phd.saaed@gmail.com)

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**ABSTRACT:** Non-compliance with residential planning standards is a growing issue that most developing countries are facing, negatively impacting urbanizations, communities and related elements. This paper aims to classify the factors affecting the compliance level with planning standards. The classification of these factors was not addressed in the literature and classified only by nominal division. These factors have still not been categorized by the previous studies into a collection of categories which take into account priorities, aspects that can be improved and other factors not, essential and consequential factors. A systematic review was conducted to identify the factors and its effect in developing countries. Based on the literature and the systematic approach, new classification of factors affecting the compliance level has been made. Two types of factors have been proposed, first, perceived factors and second, objective factors. This classification was done through a critical review of the literature and scholar statements and arguments to come up with a set of factors classifications based on relevant categories. The new classification aims to classify the factors into perceived factors that need to be improved or changed, and factors that should be considered as objective factors that must be reflected to the planning standards and planning administration and policy. The new classification may also be the first step to move from the description of this phenomena to the solving level.

**KEYWORDS:** Non-compliance, planning standards, urban planning, factor classification, developing countries

## I. INTRODUCTION

Non-compliance and planning violations defined as any construction, plan or scheme breaches the planning standards, the official planning procedure, or the land-use zoning, density or building regulations of the master plan (Sundaresan, 2017). Non-compliance with planning requirements and legislation is a typical issue with most developing nations' urban developments (Alnsour & Meaton, 2009; Arku, Mensah, Allotey, & Addo Frempong, 2016; Zegarac, 1999). Complying with the planning standards further represents planning authorities' power to manage and control the entire process of urban growth. Planning organizations are dealing with the use of planning criteria to guarantee adequate affordable housing and infrastructure provisions (Alnsour & Meaton, 2009).

The planning standards demonstrate the quality of the settlement and developments, which are including criteria of plot sizes, frontages and depths of plots, road width and criteria for public, economic and social usage (Lusugga Kironde, 2006). The main idea of planning is built on the assumption that the authorities are mindful and aware of society's land-use requirements and will act at the optimum level (Baffour Awuah & Hammond, 2014).

The factors affecting the compliance level with planning standards and regulations can be classified as administrative factors, uncertainty of planning standards, economic and social factors (Alnsour & Meaton, 2009) demographic factors (Abubakar, Lizam, & Yassin, 2013), social-cultural factors (Atamewan, 2019).

To tackle the issues non-compliance with planning standards, it is necessary to re-evaluate the factors and begin to classify them into specific categories, which could help to identify the perceived factors that need to improve and change, as well as other factors that need to be addressed as objective factors that unable to changed or cannot be improved in a relatively short period. Understanding the mismatch between perceived and objective factors would then lead to the discovery and understanding of the current situation, it is also beneficial to know the different effects of perceived and objective factors. Regarding to the perceived and the objective factors, the perceived measurement in studies of urban planning information derived from residents of the neighbourhood,

whereas neighbourhood audits to evaluate the social and physical environments objectively (Hohner, Brennan Ramirez, Elliott, Handy, & Brownson, 2005). In addition, revealing the measurement built environment if there is any correspondence between objectively measured- built environment to the perceived built environment (Ma, Dill, & Mohr, 2014).

## II. LITERATURE REVIEW

### 2.1 Factors affecting the compliance level with residential planning standards

Practically, to deal with any phenomena, it is logical to identify the contributing factors regarding this issue and tackle, reappraisal them to solve or at least mitigate their impacts. Based on the literature review, the factors affecting the compliance level with residential planning standards and regulations can be classified into several main factors which are administrative, social, economic, demographic, social-cultural factors and factors related to the planning standards itself. These factors dealing with the issue of non-compliance with residential planning standards which consider only the residential perspective. The residential buildings is the most important rather than others as the majority of building types are residential buildings. Urbanization has placed emphasis on housing development in major urban areas with the increased population rate (Jakob, Yusof, & Hamdan, 2012).

Through considering individually, there are several sub-factors for the administrative effect that contribute to administrative practice including such bureaucracy, poor management, enforcement, monitoring system, lack of qualified staff, corruption, lack of coordination and centralization of authority (Alnsour & Meaton, 2009; Arimah & Adeagbo, 2000a; Arku et al., 2016; Baffour Awuah & Hammond, 2014; Rukwaro, 2009; Srkheyilai, Sharifi, Rafieian, Bemanian, & Murayama, 2012; Sundaresan, 2017).

The economic factors play an essential role to the decline level of planning compliance which presented as income level (Rukwaro, 2009; Sundaresan, 2017), financial resources and availability of fund (ADAMOLEKUN, M. O. ISIWELE, A. J. AKHIMIEN, 2018; Arku et al., 2016), financial facilities which influences the housing provision (Alnsour & Meaton, 2009; Atamewan, 2019), and infrastructure provision (Monkkonen & Ronconi, 2013).

The social factors have a contribution of the effecting of the level of compliance with planning standards, some of the fundamental variables are household size, the public awareness level of the standards and regulation (Rukwaro, 2009; Srkheyilai et al., 2012).

In addition the demographic factor which related to the structure of populations such as the migration, gender and age which could affect the level of compliance in some way (Abubakar et al., 2013). Social-cultural factors which related to the culture and lifestyle of the society also has an effect to the compliance level with planning standards (Atamewan, 2019).

The deterioration in the level of compliance with planning standards and regulations has an adverse impact not only on the harmonies of urbanisation, the urban design but also on the environment and some cases that threaten people's lives. Furthermore, the initiative, financial investment and construction materials used in illegal settlements, violated buildings and other aspects of physical development have turned into a wall that hinders the new modern urbanisation (Zegarac, 1999). The consequences of development deviation can be seen as a decrease in quality of life, environmental deterioration, signing of the growth of informal settlements and increasing possibilities of buildings collapse (Racheal Njeri Mugo1, David N. Kuria2, 3, 2014). Besides, in term of sustainability, It should be assumed that the most essential aspect of achieving the sustainability goal is through systems planning and development plans (Owen, S & Cowell, 2011). Moreover, sustainability in housing development can be achieved through the successful enforcement of planning mechanisms such as development plan system, planning control system and board of appeals system. This is therefore a major challenge for authorities at national, regional, state and local levels to plan, monitor and control policies, strategies and development policies proposed plan for ensuring sustainability in future can be achieved (Jakob et al., 2012).

Based on the literature review, systematic analysis has conducted to identify the factors influencing to the level of compliance, categorizing these factors and grouping them into five groups (Table 1), the selection of these categories relied on a review of the literature.

**(Table 1) percentage and number of frequented factors in 58 relevant studies of planning compliance with standards**

Category of group of Factors	Percentage of repeated	The number of frequented factor in literature review
<b>Group 1 Administrative Factors</b>	<b>36%</b>	<b>73</b>
	<b>Other expression of the factor</b>	
<b>1.Monitoring</b>	<b>Control system/Supervision</b>	15
<b>2.Bureaucracy</b>	<b>Rigid process/long time obtaining title or permit</b>	13
<b>3.Enforcement</b>	<b>Implementation</b>	12
<b>4.Lack of coordination</b>	<b>Corporation / collaboration</b>	12
<b>5.Trained staff / lack of staff</b>	<b>Lack of trained staff/lack of staff</b>	11
<b>6.Corruption</b>		7
<b>7.Centralization</b>	<b>Weak power at domestic/municipal level</b>	3
<b>Group 2 Legislation &amp; Laws factors</b>	<b>26%</b>	<b>53</b>
	<b>Other expression of the factor</b>	
<b>1.Uncertainty</b>	<b>General ignorance of standards</b>	12
<b>2.Outdated standards</b>	<b>Old version</b>	9
<b>3.Plot size</b>	<b>More living space</b>	9
<b>4.Sanction/penalties action</b>	<b>Postpone of penalty /delay demolition action</b>	9
<b>5.Rigid and High</b>	<b>Inadequate regulations</b>	8
<b>6.Colonial input</b>	<b>Foreigner background /imported rules</b>	6
<b>Group 3 Economic Factors</b>	<b>17%</b>	<b>33</b>
	<b>Other expression of the factor</b>	
<b>1.Income level</b>		15
<b>2.Finance</b>	<b>Fund/financial support</b>	7
<b>3.Housing shortage</b>	<b>High demand with low supply of housing/planned subdivision</b>	4
<b>4.Infrastructure provision</b>	<b>Poor utilities/absent of basic and necessary services</b>	3
<b>5.Change use for income</b>		4
<b>Group 4 Social Factors</b>	<b>14%</b>	<b>28</b>
	<b>Other expression of the factor</b>	
<b>1. awareness level</b>	<b>Public /builders/developers/planners lack of awareness</b>	13
<b>2.Household size</b>	<b>Family size</b>	10
<b>3.Culture /life style</b>	<b>The living activities/traditional</b>	3

	<b>style of life</b>	
<b>4.Kinship &amp; tie personal interest</b>		2
<b>Group 5 Demographic Factors</b>	7%	<b>13</b>
	<b>Other expression of the factor</b>	
<b>1.Rapid growth</b>		7
<b>2.Migration</b>		6

**III. METHODOLOGY**

The method which used is a systematic approach based on the databases that used as a resources to collect the previews and relevant articles and papers to the planning studies. The selected databases are Scopus and G. scholar. Searching the previews studies has been conducted on the issue of non-compliance with planning standards and regulations and used the most important expressions that have been used to identify the phenomena of planning violation such as non-compliance/compliance/violation/ contravention with urban planning and planning regulations and standards.

**IV. RESULT**

**4.1 Reclassified the factors into perceived factors and objective factors**

To benefit from empirical finding of the literature review and reappraisal of the factors influence the compliance level with planning standards, it is essential to reclassify these factors into different categories which has not addressed from the literature review. Scholars were besieged with categories the factors based on nominal characteristics such as economic, social, administrative, demographic factors, in addition to the planning standards itself.

Based on the systematic study, the most two important factors are the administrative factors and the planning standards, this shows that these two factors are effecting the compliance level than the others.

This can reveal that these two factors are essential as they considered as perceived factors. From this point, it may logically reclassified the factors into two types, the first one is perceived factors and the second are objective factors as following:

**4.1.1 Perceived Factors**

**1. Factors related to Planning standards**

Practically, to tackle or at least mitigate the issue of planning violations, it must be reappraisal and reformulate the planning standards which considered all the social, economic, cultural characteristics that reflected the local needs and circumstances. This means that the previews factors considered as perceived factors which must be reflected to the planning standards as the planning is from people to people. According to (Gans, 1969) the first step to plan for people in his study "planning for people, not buildings" is to consider giving up all the traditional concept and begin to establish standards that reflect people's needs and wishes and problems, these considerations will then classify the various groups of classes, different lifestyles, goals and needs. Once this has been done, the general view of the new plan will show up which took into account the people's needs and solves their problems.

Scholars described the existing planning standards as rigid, outdated and merely translated from a foreign background. The established planning standards are rigid and outdated and not applicable for local conditions as they were planned with high urbanization rates and formulated with maximum standards influencing the enforcement of these standards (Arku et al., 2016; Fekade, 2000; Srkheylai et al., 2012).

The relevant studies have highlighted the existing planning standards with expressions such as “mismatch” “unsuitable” for the local (Arku et al., 2016). Complex and strict and not meet the economic status of the people and conflict with the needs of the residents (Rukwaro, 2009). The current standards are inherited or imported from foreigner background that not formulated based on the local needs and realities (Arimah & Adeagbo, 2000a; Lusugga Kironde, 2006; Rukwaro, 2009).

Another evidence confirm that the existing planning standards have not met the current local economic and social context, study conducted by (Magigi & Majani, 2005) in Tanzania, the study the communities led planning standards in informal settlement, the result reveal that the formal planning standards are rigid and the

informal settlement emergence was outcome of these rigid standards ,while the standards that adopted by the community (unwritten norms) have reflected the needs of the communities in term of the provision of services, although these were haphazard housing development.

From the foregoing, the planning standards were clearly indicated as a main causal factor pertaining to the planning violations issue, therefore the planning standards must be considered as a mine factor which required to reappraisal and change to meet the local needs and wishes.

## 2. Administrative factors

The relationship between the administration practices with a low level of compliance with planning standards has seized the relevant studies of the planning violations. For instance, Sarkheyli in his survey “An investigation of the reasons for non-compliance with FAR regulations in Tehran” has hinted that the poor municipal management has a direct impact to the low compliance level.

The administration factor affects the compliance level indirectly through the lack affordable housing and directly through the poor of the monitoring system, fail to control the planning contravention, postponed demolition of the form of planning violations (Alnsour & Meaton, 2009; Srkheyli et al., 2012). Besides, the poor management has indicated as the managements contributed the planning violation issue through wrong decisions that made such as increase revenues through allowing citizens to build illegally and pay fines instead of demolishing the illegal form of violations and rigid and long-time procedures to get approval title (Arku et al., 2016; Srkheyli et al., 2012). Substandard housing and poor environmental conditions, congestion of traffic, frequent removal of illegal houses, haphazard urban growth are all definite proof of a weakness in the administrative planning system (Arku et al., 2016). Short-staffed management system, poorly equipped, low funding rate and planning remain lowest on the government's list of priorities, corruption, all such administrative challenges affect the efficiency of planning authorities (Arimah & Adeagbo, 2000b).

A Good planning system requires setting out the details of the administrative system, such as promoting cooperation, simplifying the administration process, increasing resources and defining the appropriate level of control of the government organization (Sundaresan, 2017). It is not fair to blame the outdated, high standards and colonial legacy for bureaucracy protocols, since these issues are due to weak administration, management system (Lusugga Kironde, 2006).

Based on the finding by scholars on the factors of administration affecting the planning violations, the above issues are strong evidence that the planning system administration has a share of responsibility, which is why this has to understand the administration factor as perceived factors that can be fixed.

### 4.1.2 Objective Factors

#### 1. Economic factors

One of the vital economic factors influenced directly the planning violation is the income level. The majority of the planning studies highlighted the income level as a main factor (Aliyu, Kasim, & Martin, 2011; Alnsour & Meaton, 2009; Few et al., 2004; Kombe, 2005; Monkkonen & Ronconi, 2013; Rukwaro, 2009; Sarkheyli & Rafieian, 2013; Srkheyli et al., 2012).

It is completely obvious that people on low incomes couldn't meet the planning requirements because compliance required high construction costs, thus the level of income is supposed to respond positively to the degree of the level of compliance (Alnsour & Meaton, 2009). People on low incomes have limited access to the banking system or loans (Monkkonen & Ronconi, 2013). Changing residential area use is a form of violation of planning, across developing countries the homes operates as a place of work to generate more revenue(Arimah & Adeagbo, 2000b). This characteristic should always be mirrored in the planning standards as it is a local tradition to generate revenue and as it is more appropriate for them to work close to their homes. The level of income, the economic status and the local ways of living are aspects that could not be changed. Hence, these economic situations must be viewed as facts or objective factors that need to be considered in the formulation stage of the planning standards.

Another aspect of the economic factors is the economic status or the available resources. Researchers reported that the planning standards and regulations were stricter and demanded very high standards that could not be achieved adequately within the existing resources (Rukwaro, 2009). Urban planning strategies including such spatial and urban development must manage urban development processes that are put in realistic social and economic circumstances with a clear understanding of potential effects for spatial and urban elements (Zegarac, 1999).

Regarding housing and infrastructure provisions, the lack of such provisions was mainly related to the gap between development targets and local funding due to the centralization system in most developing countries, largely related to the essentially political nature of resource distribution at the local level for housing and infrastructure provision (Rakodi, 2001). The planning performance was directly influenced by the low government's budget for planning activity since this inadequate budget cannot cover all planning tasks (Few et al., 2004).

Based on the aforementioned arguments of economic concerns about the level of compliance with planning standards, two sets of factors appear to be distinguished, the first are factors defined as data and objective factors of the situation that were not considered in planning standards such as income levels, limited resources and the desired lifestyle of the indigenous residents. All of these must be viewed as objective factors to be used as data for the formulation of the standards. The second set of factors are related to the system of government, such as inadequate of resources distribution, the gap between the goals and available resources. All these are primary reasons which unfortunately common in most developing countries. These facts could only be treated as facts, which go beyond the problem of planning violations since these difficulties need time and rooted solutions and are not capable of being addressed in the present time.

## 2. Social and cultural factors

The social and cultural factors has been always identified as factors influence the planning contravention which need to be adopted from the policies of the planning authorities(Aribigbola, 2008; Arimah & Adeagbo, 2000b; Baffour Awuah & Hammond, 2014; Hajjalirezalou, 2018; Huchzermeyer, 2004). Social and cultural context must be determined as facts “ it difficult to change people unless they want to be changed”(Gans, 1969). Scholars has been always insist this idea, for instance, Srkheyli (2012) has stated that the existing policies should indeed be adopted in harmony with society's social, economic and cultural features. Additionally, Alnsour (2009) kept pointing out that effective urban planning systems are required, but this must be dependent on the availability of resources and should represent the local social and cultural-spatial context.

With regard particularly to social factors such as the size of the household and public awareness, these factors have been identified as social factors that can influence the contravention of planning standards. Again with the large size of the family, it is a fact and not as factors involved that can be modified or improved. Large household size requires additional spaces to accommodate large families, contributing to breaches of the maximum standards of plot coverage(Offei, Lengoiboni, & Koeva, 2018). Even for public awareness, it seems essential, although if we look at it correctly, it may vanish when there are strong monitoring and enforcement systems, the citizens will comply with the standards even though they are not aware of the value of those standards. Further, it's not right that the efficiency of planning systems tends to depend on public awareness. In addition, even when people are aware of the residential standards, they are also not complying with them (Alnsour & Meaton, 2009; Arku et al., 2016; Baffour Awuah & Hammond, 2014). Anyone questions what is the function of the planning authorities' monitoring and enforcement systems then? The answer to this question is that their task is to ensure that urban developments are built based on the planning standards. Therefore, public awareness ought to be seen as a supportive dimension to relieve the pressure when the enforcement system applies on the ground.

From the above mentioned, it is more appropriate to recognize the social and cultural factors as objective factors and facts that should be mirrored on the planning standards and also on the policies and plans rather than being treated as factors that need to be improved or modified.

## 3. Demographic factors

Demographic factors have been described as the studies dealing with the increase (birth and immigration) and decrease (death and emigration) of a broad range of racial, ethnic, gender, national origin social groups (Abubakar et al., 2013). Demographic factors has been highlighted as factors influenced the planning violations, these factors including immigration (Kombe, 2005; Monkkonen & Ronconi, 2013; Shahraki, 2017), rapid population growth (Arku et al., 2016; Atamewan, 2019; Hajjalirezalou, 2018; Jimoh, B. A., Al-Hasan, A.Z., Imimole, W.O., and Ahmed, 2017; Nahrin, 2008; Sarkheyli & Rafieian, 2013; Sundaresan, 2017). Gender (Kasim, Umar, & Martin, 2016; Kihuga, 2018) age (Mohammad, 2006; Rukwaro, 2009).

The migration has often identified as a factor affecting the violations of planning as emigrants move to the main cities to result in the emergence of the informal settlements (Shahraki, 2017). The reasons driving immigration includes a demand for better opportunities to improve their living conditions and increase activities to generate an income (Kombe, 2005), rural areas have possibly not fulfilled their needs, and the attractiveness of the facilities and infrastructures in the large cities and try to seek job opportunities. Immigration leads to cultural conflicts, weak cultural foundations, no sense of belonging to cities, all of these can raise the issue of



contravention planning (Sarkheyli & Rafieian, 2013). Strict land-use regulations will further deter immigrants from moving to a particular city, thus minimizing immigrants that would also help mitigate informal settlements (Monkkonen & Ronconi, 2013).

The rapid growth of the urban population was indeed causing more informal structural expanding. This rapid growth created heavily populated areas that were illegal developments (Shahraki, 2017).

Based on these arguments and statements, it is more appropriate to view the demographic factors as objective factors rather than factors that can be changed or improved.

**V. PROPOSED CLASSIFICATION OF FACTORS AFFECTING THE COMPLIANCE LEVEL WITH PLANNING STANDARDS**

Based on the literature review, no attention has been paid to classifying the factors that influence compliance level with residential planning standards. A proposed classification of these factors was then made based on the statements and arguments of the academics and relevant studies. The proposed classification was carried out through a systematic analysis of the literature and, based on finding, the proposed classification of these factors would be classified into two categories of factors, the first being perceived factors and the second being objective factors. Besides, several factors could be vanished or being unimportant when the main ones have solved (Figure 1).

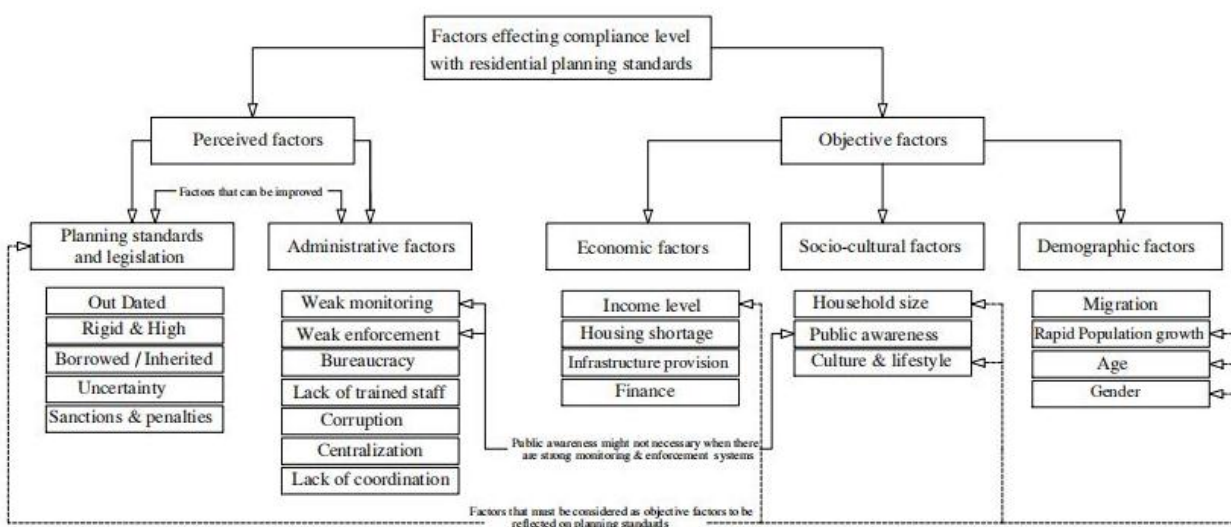


Figure (1) Classification of the factors effecting the compliance level with planning standards

**IV. CONCLUSION**

The phenomenon of non-compliance and violations of residential planning standards ought to be viewed from the point of view of solving the issue and not just merely describing it. Thus, classifying the factors into perceived factors that need to be reflected on both planning standards and the management system and strategy, those factors that can be improved and modified. On the other hand, the objective factors that need to be considered as facts that cannot be changed or that cannot be tackled in the short term future. Based on this new classification, both academics and planners may view this phenomenon from a realistic point of view in order to mitigate the consequences of this phenomenon, and it may also be the first step to move from the description to the solving level. Effectiveness of the planning mechanisms would then achieve sustainability in housing development.

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