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AN EVALUATION OF THE CURRENT URBAN DESIGN PROCESS IN ORDER TO DERIVE CRITICAL SUCCESS FACTORS FOR THE CREATION OF A POTENTIAL NEW URBAN DESIGN PROCESS FRAMEWORK

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Abstract
The current urban design process is top-down, i.e., generally the urban designers or planners design the urban environment and at a later stage the community may have some involvement. There are serious criticisms of this process as it may not touch the "ground" level community, and therefore, there is a serious risk these projects will fail to create sustainable environments. Accordingly, in order to overcome the drawbacks of the current top-down process, researches have discussed implementing a bottom-up process in order to deliver sustainable urban designs. In the meantime the current top-down urban design process may have features which may positively affect for the creation of sustainable urban designs. Accordingly, this research paper discusses the critical success factors of the current top down urban design process which supports for a creation of a new potential urban design process framework. The research methodology adopted for this research is case study research reinforced by grounded theory where the researcher has evaluated a live urban design project process in North-West England. The evaluation has resulted deriving seven critical success factors. The "leadership" of the process has been identified as one of the major critical success factors among the other critical success factors.

Keywords: *Sustainability, urban design, top-down process, bottom-up process, critical success factors*

1. Introduction

The current urban design process is mainly top-down. Fraser, Dougill, Mabee, Reed, and McAlpine (2006) state that design processes typically lead by experts simply comply with the funding agencies and this top down process may alienate the community and fail to capture locally significant factors. To overcome the constraints in the top down urban design process, many researches have discussed implementing a bottom-up process in order to deliver sustainable urban designs. C. T. Boyko, Cooper, Davey, and Wootton (2006) states that sustainability issues should be addressed early in the urban design process, and therefore, people who live, work and socialise in urban environments have a fundamental role to play in urban design. Accordingly, Boyko et al. (2006) suggest the constantly changing social, functional, aesthetic and emotional needs should be addressed in the urban design process by providing community engagement opportunities throughout the urban design process. Even though the bottom-up process has been proposed as a potential process for urban design, a bottom-up process has its own weaknesses which can adversely affect the quality of the urban design project or its processes. For an example, as Annibal, Liddle, and McElwee (2013) assert that local people have a unique perspective on their needs, joining up settlements, managing change through community led planning and delivery of innovative services but they have stated that the community needs to be organised, and therefore, a statutory service needs to be engaged which can identify local priorities, secure resources and undertake responsibilities. Therefore, this argument confirms a pure bottom-up process itself may not be a complete solution. Accordingly, based on an extensive literature synthesis which was conducted in a doctoral research, the need to develop a new "balanced" urban design process framework which encompasses features of both top-down and bottom up processes for the creation of sustainable urban designs was established. In order to develop a balanced urban design process framework, the current top-down urban design process as well as a potential bottom-up process were evaluated to examine positive and negative features of both processes and to derive the critical success factors. Based on the derived CSFs from both processes a new community embedded urban design process framework was developed under a doctoral research at the school of Art, Design and Architecture, University of Huddersfield. The specific feature of this new urban design process framework is the process encompasses the features of both top-down process and the features of bottom-up process leading to a creation of a balanced urban design process framework which finally helps to achieve the sustainability issues concerned in the current scope of urban design. The current scope of urban design is focused on achieving sustainability in its triple bottom line which is social, economic and environmental sustainability. However this paper specifically discusses the evaluation of

the current top-down process and how this examination has assisted to derive critical successes factors for the new urban design process framework from the current top-down urban design process. A mixed research methodology guided by case study and grounded theory have been used for this study and a live urban design project process in North-West England has been evaluated to derive the critical success factors (CSF).

2. Literature synthesis on current urban design process and its implications on sustainable urban design

This section examines the nature of the current urban design process and how that particular nature has affected for the creation of sustainable urban designs.

2.1. NATURE OF THE CURRENT URBAN DESIGN PROCESS

Roberts and Greed (2001) describe the urban design process occurs in four sequential stages. As they discovered, during the first stage 'defining the problem' the planning or design team appraises the study area by conducting surveys associated with the urban form by undertaking an activity analysis. Thereafter, based on the analysis, the team develops a rationale with a summary of development opportunities and constraints. In the latter stage, area strategies and urban design options are evaluated by team members who then finalise an urban design strategy for the area. This indicates that, in practice, the current urban design process is stiff and directly indicates that it is a totally top-down process. Similarly, the four key stages described by Moughtin (2003) in the urban design process in line with the RIBA practice and management hand book of the time, can be taken as another example which emphasises the top-down nature of the urban design process. As explained by Moughtin (2003) in the first phase of the process an architect, planner or urban designer is appointed to identify the problem area and, thereafter, analysis is undertaken; based on the conclusions from the analysis strategies for future development are generated. Once a design is generated, at the latter stage of the process, the client and other stakeholders are consulted. In both these top-down processes, community involvement in the design process is not particularly mentioned nor identified as being an important step in the urban design process and this is indicative of the stiff nature of the top-down urban design process. Based on this stiff top-down nature of the current urban design process, many researchers have argued on its implications for the creation of sustainable urban designs. Some researchers have revealed its positive implications and some researchers have revealed its negative implications. The following literature synthesis identifies the positive and negative implication of the current top-down urban design process for the creation of sustainable urban designs.

2.2. IMPLICATIONS ON SUSTAINABLE URBAN DESIGN

Roy and Ganguly (2009) have stated that a classic top-down process provides early, high level planning which may not deal with the real issues at ground level. As they have explained, a top-down process has no significant understanding of the specific issues, or their cause, at ground level. The Commission for Architecture & Built Environment (2000) argues that a blanket policy of using a top-down process across all locations at all times is not suitable for urban design because each design solution should be distinctive and specific to each context in which it is to be implemented. Carmona, Heath, Oc, and Tiesdell (2003) maintain that the danger of the top down process is the prior formation of the agenda which may lead to the manipulation of local opinion rather than addressing genuine community needs that emerge through effective participation. Supporting the argument of Carmona et al. (2003), and adding to that argument, the Commission for Architecture & Built Environment (2000) has stated that local stakeholders often have particular insight into specific urban design issues affecting a given context and, therefore, urban design solutions developed through a top-down process may not be accepted by the majority of stakeholders. While above arguments discover the negative implications of the current top down process, Larice and Macdonald (2007) have exposed several positive implications of the current top down process. Accordingly, they have asserted that in a top down process development options or proposals are already prepared, therefore, it is easier to focus on the community consultation process. Furthermore, they discovered that a top-down process is less time consuming due to the whole process being predefined and controlled by professional actors. In addition Larice and Macdonald (2007) argue that a top-down process is more effective in terms of resource mobilisation because professional experts mobilise, co-ordinate and interpret community options. Even though Larice and Macdonald (2007) are positive about the current process of urban design, Cooksey and Kikula (2005) argue there are more negative implications in the current process than positive implications. As they discovered the key positive implications are; a top-down approach gives government planners and designers a sense of control and efficiency while donor agencies are keener to invest in projects which have a top-down process because they feel that budgets can be maintained along with pre-established targets and timetables. But as has also been argued there are numerous negative implications to the top-down process and three of the key drawback are, planners and designers proceed as a clean slate design ignoring well-established community social system, analysis generally based on quantitative data or numerical estimations and usually based on poor assumptions of social and environmental behaviour which are often proven to be incorrect because locality and social formations differ. Bell (2005) has argued to achieve good urban design it is necessary to

respond to local needs, such as, social and cultural needs, heritage, movement and access, environmental management etc; she has also stated that the current process of urban design often fails to identify such needs in the local context, and therefore, this makes creating a good urban design challenging. Accordingly, she suggests the need for a new progressive process for urban design which has a scope to include the local context. Directly supporting the argument of Bell (2005), Boyko, Cooper, and Davey (2005) have stated that the urban design process must be transformed to create sustainable urban environments. Based on the findings from the literature synthesis the positive and negative features of the top down process can be summarised as follows:

Table 01- Positive and negative features of the current top-down process

Positive Features	Negative Features
•A top-down process gives planners and designers good control over the design project	•Alienates local community members and fails to capture locally significant factors
•Community consultation is easy in top-down process as the plans are al-ready prepared	•Provides early and high level planning which may not deal with the real requirements at ground level
•Less time consuming	•Does not identify specifically the uniqueness of the local entity
•Effective use of resources •Donor agencies are keener to invest in projects which use a top-down approach	•Could leads to manipulation of local opinion rather than addressing genuine community needs that emerge through effective participation
•Donor agencies are keener to invest in projects which use a top-down approach	•Generally based on quantitative and numeric analysis than identifying particular facts in the local context
	•Usually based on poor assumptions of social and environmental behaviour
	•Overlooks the day-to-day life of residents and particularly of family residents
	•May not be accepted by the majority of the community

As revealed in the literature synthesis, the current top-down urban design process has its own positive and negative implications for the creation of sustainable urban designs. Therefore as stated above the current top-down urban design process should be evaluated in order to derive CSFs' to develop a new sustainable urban design process framework.

3. Methodology

The researcher used mixed methodology reinforced by case study research and grounded theory. The research techniques were non participation observation, document review and semi structured interviews. In this study the re-searcher investigated the process of a real life urban design project which was based in North West England. Non-participant observation is one of the key data collection methods in this case study. Accordingly the researcher participated in local design team meetings and other events which were organised to develop the local action plan concerned for this study. Document review was another important method used in this case study to gather much significant information. Several interviews were conducted with community members who live in this particular study area. This has given the researcher a good opportunity to investigate how the community regards the urban design process employed in this project; its drawbacks and any components that should be added to make the process more transparent. Apart from interviews with the community the researcher conducted a detailed semi-structured interview with the Principal Project Officer in charge of the particular project. After gathering data, the researcher qualitatively analysed them by using the NVIVO and Inspiration software where the researcher could derive 07 critical success factors for the creation of new urban design process framework.

4. Discussion and Findings

Based on the positive and negative features of the current top-down urban design process the researcher derived 07 critical success factors which supported for the creation of new community embedded urban design process framework. The derived seven CSF are explained below.

1. CENTRALISED LEADERSHIP AND CONTROL

Centralised leadership and control was one of the leading critical success factor that emerged from this study. The research analysis revealed that the leadership of this particular UD process (top-down urban design project process) was more centralised to one authority rather than powers being devolved to several authorities or a group of people. Thereafter the researcher investigated, is it a good feature to maintain a centralised leadership? If so how can it be done? Accordingly, based on the analysis the researcher dis-covered, having a centralised leader is a positive feature in a sustainable UD process and it was also revealed that final decisions should be taken by that particular central leader. These empirical findings were strengthened by the literature synthesis as Lang (2005), Carmona (2014)

Cooksey and Kikula (2005) have also described centralised leadership as a positive feature in a UD process. Based on the findings of the analysis, the researcher noted that centralised leadership is needed in order to initiate and execute the UD process in order to complete the UD process effectively within the required time period. Furthermore, it was discovered that the technical and rational decision making should be taken by the project leader.

4.2. COMMUNITY ENGAGEMENT & THE ROLE OF THE COMMUNITY

Community engagement is one of the prominent critical success factor derived by evaluating the negative features of the current top-down urban design process. The analysis indicated that this particular urban design process was a more centrally oriented top down process rather than providing engagement opportunities to the wider community throughout the process. It was clearly identified that community engagement in this process was limited to the latter stage of the process, when the project team conducted a community workshop in order to inform the community about the proposed actions (solutions) for the area and to obtain their comments about the prepared design solutions before finalisation of the plan. The communication process of this project led for many unanswered questions remaining regarding community engagement and the role of the community. These are some of the questions which emerged in the analysis: Is it necessary to engage the community throughout the UD process? If so, when and how is the community to be engaged? Accordingly, the community interviews conducted by the researcher revealed many important information about the community viewpoints about top-down communication process as well as their aspirations to engage in the urban design process. The researcher investigated the communities' asp rations to be engaged in the different stages of the urban design process. Accordingly, the analysis revealed that community can play a strong role at the urban analysis stage in the urban design process. The need for engaging the community for urban analysis has been identified by many authors and re-searchers, among them Boyko et al. (2005), who have stated that the needs of the area should be identified by the community and they should be given ownership to identify the problems and issues of the area. Based on the findings of the study the following mind map (figure 1) was produced informing the influential role of the community in the urban analysis stage.

Thereafter, the researcher investigated the role of the community in the strategy generation stage and it was discovered that the community may have certain interest in engaging in strategy generation but their capability may be limited and not would be greatly influential as it would in the urban

analysis stage.

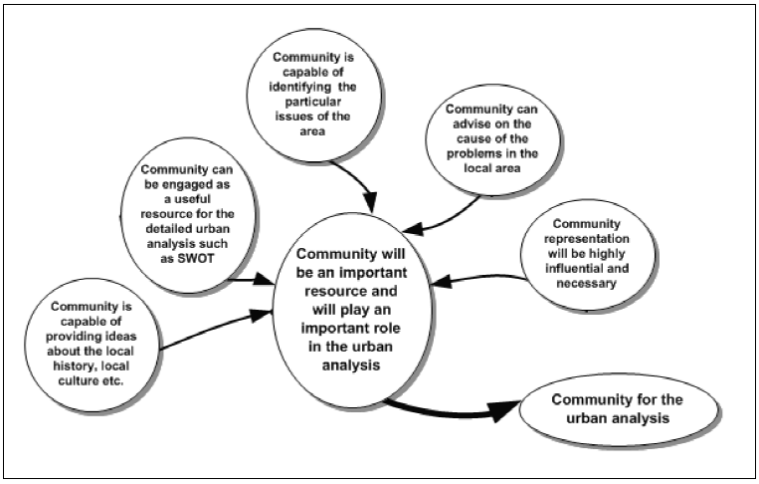

Figure 1, Role of the community at the urban analysis stage

Thereafter, the researcher investigated the role of the community in the strategy generation stage and it was discovered that the community may have certain interest in engaging in strategy generation but their capability may be limited and not would be greatly influential as it would in the urban analysis stage. Figure 2 describes the role of the wider community in drafting strategies. However many authors have supported the engagement of the community in strategy generation, among them, Carmona (2014) has stated powerful play should be enacted by non-designers in this particular aspect.

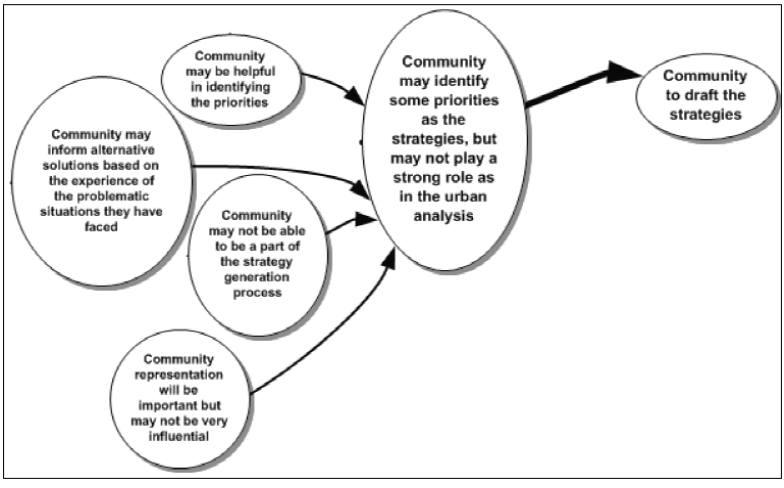

Figure 2, Role of the community at the strategy generation stage

Thereafter, the researcher investigated the role of the community in design development stage. Accordingly the findings revealed that the community does not have a specific interest in engagement in the design development process. Further the results verified that they do not have particular talent to engage in the design development. The analysis indicated that the community can inform the potential designs and they can help to integrate urban analysis findings in the design development, but apart from that, as the analysis indicated, design development is a thing that should be undertaken by the professionals. In addition to the role of the community in the UD process, this CSF informed five conditions which should be maintained in a sustainable urban design process. Those five conditions with its attributes are explained in the table 2 below,

Table 2, Conditions to be met in community engagement

Conditions	Attributes
1. Should provide true opportunities for the community	• Community should be given opportunities to actually participate in the process rather than seeking community ideas for already developed plans • Once community ideas are obtained they should be integrated into the final development plan
2. Avoid Over consultation	• Should avoid consulting people about the same issues several times
3. Trust	• Should not consult the community before obtaining and assurance about implementation into the project • Should integrate community ideas after consultation • Engagement should be a transparent process
4. The ability of the community	• The ability of the community to actively engage in the process differs from community to community, therefore it is necessary to change the communication techniques to suit the status of the local community
5. Community should be properly informed about the community consultation	• True intention to inform the consultation workshops to the community • Use of wider tools and techniques to advertise the consultation workshops • Community should be informed in advance

4.3. COLLABORATION WITH OTHER STAKEHOLDERS

Collaboration with other stakeholders emerged as another CSF in this case study. Collaboration with stakeholders is referred to as engaging or obtaining

the help of other stakeholders in the urban design process apart from community members. Even though the urban design process of this particular project is top-down a local support group had been established at the urban analysis stage and it operated until strategy generation leading to the creation of the draft action plan. The support group comprised local politicians, building contractors, members of the planning and designing team, and people representing the academic organisations etc. The support group was led by the principal project officer of the city council. The analysis informed that seeking ideas from a wider audience is a positive feature in a sustainable urban design process and the engagement can be undertaken from the urban analysis stage through to the strategy generation stage by establishing a project group or team who represent the wider stakeholders. Furthermore, it was understood that the composition of the stakeholders to be engaged maycomprise the local politicians, representation by people from academia and officers from the construction management discipline such as project developers.

4.4. COMPREHENSIVE URBAN ENVIRONMENTAL DIAGNOSIS

'Comprehensiveness' is an outcome of many factors. All the other CSF identified in this study provide inputs to create comprehensiveness in the urban design process. Even though comprehensiveness is an outcome of many CSFs, in this study a separate CSF emerged on comprehensive urban environmental diagnosis because of two main issues that need to be maintained in the urban analysis of a sustainable urban design process which are non-linearity in the urban analysis and the use of qualitative and quantitative data in the urban analysis. Non-linearity refers to the analysis of urban environment by different parties rather than by only a particular party and use of qualitative and quantitative data in the urban analysis refers that the urban analysis should be conducted by using primary data as well as using secondary data rather than relying only on secondary data. The finding of using qualitative and quantitative data for the urban analysis was strengthened by the findings of Boyko et al. (2006), who state that urban analysis should not only rely on quantitative methods but also needs to focus on the local context.

4.5. EARLY DECISION MAKING VS CEASING EARLY DECISION

This CSF explains the need for avoiding early decisions in the urban design process before actually observing ground level facts and figures. It shows the necessity for urban design process decisions to be taken only after a detailed analysis of the facts and figures and that the initial findings should be

considered only as initial findings not as final findings which lead to the conclusions. The analysis revealed three ways to avoid early decisions which are avoid pre identified urban components (analysis), avoid pre developed visions and avoid decisions based on the smaller sample of the community. Strengthening the analysis findings Lang (2005) has discovered that the UD process should be proceeded upon with an open mind by avoiding initial heads of general solutions.

4.6. GROUND LEVEL ORIENTATION

The CSF ground level orientation informs the UD process should be conducted by using ground level facts and figures. This indicates the need to use the community as a strong resource in the UD process and also points towards the need for the project team to collect data and information by visiting the urban area rather than obtaining the information from the previous reports and documents. This CSF is directly related to the CSF 'community engagement'.

4.7. SPECIFIC FEATURE OF KNOWLEDGE SHARING

The meaning of knowledge sharing in the UD process is sharing knowledge and experience with other partners who are involved in urban development activities. However, it is questionable whether this CSF can become a factor which leads to building a new urban design process framework as this opportunity for sharing knowledge with other project partners is unique to this particular UD project., Not every UD process will get the opportunity to work with project partners.

5. Conclusions

This paper revealed the establishment of potential CSF for the creation of new community embedded sustainable urban design process framework based on positive and negative features of the current top-down urban design process. As described earlier this study was conducted as a part of a doctoral research and therefore after establishing these CSFs, these CSFs were further analysed in order to establish the components for the initial urban design process framework which was derived by investigating the current top-down urban design process. Thereafter, the researcher investigated a potential bottom-up process and derived CSF's and then further analysed them to develop components for the second initial urban design process framework. Based on the findings from the two initial conceptual frameworks the conceptual urban design process framework was established, thereafter, the framework was critically examined along with the literature findings to

ensure the robustness of the conceptual UD process framework. The firmly established conceptual framework was validated by experts in the field of urban design in order to assess the viability of the conceptual framework for use in urban design projects. Finally, based on the experts' opinions, the framework was further shaped and developed to create the final new UD conceptual framework which enhances sustainable urban designs. As described above this paper presents only a part of the findings of the doctoral study.

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