

# MANDATING GREEN BUILDINGS IN DUBAI: A MULTI-STAKEHOLDER PERSPECTIVE

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## ABSTRACT

Buildings consume more than 40% of the global energy and contribute to one third of global greenhouse gas emissions (Erlandsson and Borg 2003, Li 2006, UNEP-SBCI 2009). It also has a significant impact on the environment, where it accounts to the largest share in natural resources consumption, land use and material extraction. It is said that it approximately consumes 44% of the overall material consumption (Pearce 2006).

The potential to reduce greenhouse gas emissions from buildings is significantly high. It even offers the largest low cost potential around the world (IPCC 2007), that is why governments started to set various policies in which green building requirements became essential as part of its broad national agenda in achieving energy and GHG emissions reductions.

Many governments followed the trend of mandating green buildings while other governments promoted voluntary programs. In Dubai, the government chose to follow the mandatory regulations where all private sectors should comply with the new regulations starting from 2014.

The effect of mandating green buildings on the building's efficiency and other aspects has been studied by large number of researchers. Many of them argue that mandating green building

through regulations could influence the green building market. “When builders are mandated to follow green practices, the market will experience significant shifts in sustainable construction practices and an accelerated implementation of green development” (Aroul and Hansz, 2012). However, previous studies overlooked the perspective of stakeholders who will be affected by the regulations on mandating green buildings and also their perspective on the role of the government in pushing the green building market.

It is crucial for a government to be well informed of the market situation (Chan et al, 2009). Knowing the perspective of its stakeholders on setting a minimum set of regulations can be a foundation to further tackle their concerns and find proper incentives to motivate them. This would also help in actively engage them in green building projects. This research aimed at investigating the perspective of stakeholders in the building industry on mandating green buildings in Dubai. It tried to understand to which extent stakeholders perceive the role of the government in pushing the market for green buildings, and to which extent they tend to agree on mandates. It also tried to highlight the different concerns of the stakeholders regarding the regulations.

A mixed method approach was followed for collecting data. Preliminary interviews were conducted with officials from the public and private sector in order to understand the current situation in Dubai and the market issues. Then, a web-based survey targeting building professionals operating in Dubai followed the interviews.

A sample of 252 companies responded to the survey. The survey reflected the opinion of the company not individual opinion, with more than 41.5% of respondents holding senior positions. (CEO, owner, vice president and department head).

The sample included real estate developers, contractors, consultants, building material suppliers and building services companies. The percentage of domestic companies was only 25 percent.

The results of the survey showed a general agreement on mandating the green building. However, the level of agreement among stakeholders differed by categories. For example, contractors and developers tended to agree less on the mandates and they perceived the regulations as having a negative impact on their business. Interestingly, building material suppliers showed the highest tendency to agree on the regulations. This reflects the business opportunity they perceive in the regulations. Also, international companies showed more interest in the green building regulations but they indicated less readiness among other categories for starting the implementation 2014.

Additionally, the survey proved the research hypothesis that the government is the key player in pushing the green building market, where the governmental regulations topped the main drivers for stakeholders to engage in green buildings. Also, the main barrier for them was the lack of governmental incentives.

It should be noted that the survey followed a hypothetical model that tried to identify key factors affecting the stakeholders' tendency to agree on the regulations. Company readiness, market readiness and the company's value for green were the statistically significant factors that affected company's tendency to agree on the regulations.

The survey also helped to highlight some of the concerns that each category of stakeholders hold as an opinion on the regulations. These concerns were the foundation to give some policy implications that help not only the government of Dubai but also other governments in the region to understand how stakeholders perceive the role of the government and their main areas of concern.

The policy implications were mainly targeting both the areas of interests and the area of concerns for each category of stakeholders.

This research contributes to a better understanding of the perception of stakeholders in the building industry towards having new policies that might have an effect on their way of doing business. It lays a foundation for the government of Dubai a comprehensive view of the stakeholders' standpoint of view.

It also reflects a rich feedback that helps the government to find ways to tackle the different concerns of stakeholders and incentivize them accordingly. In addition, it contributes to the existing literature with a new perspective on the role of the governments and regulation in pushing the market for green buildings adoption.

*Keywords: Mandates, green building, stakeholders.*