

**A DUALITY OF SUSTAINABLE ACTION:
How sustainable buildings change people's sustainable intentions and actions and
how people change the intentions and actions of sustainable buildings**

As of January 2015, in the United States over 3.6 billion square feet of space has been LEED-certified as a “sustainable building” by the United States Green Building Council (USGBC)—in over 77,000 buildings; additionally, outside the United States, another 69,000 buildings have been LEED-certified as sustainable by other Green Building Councils (USGBC.org, 2015). Sustainability has had wide appeal in many disciplines, such as marketing, management, economics, architecture, engineering, construction management, psychology, sociology, and others. According to the Brundtland Commission, sustainability is defined as the ability to “meet the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p. 27). In recent years, sustainability has shifted from just protecting the environment to include sustainable consumption, efficient use of technology and spaces, sustainable business practices, and environmental and societal responsibility (Humphreys, 2014). Sustainability, rooted in the “triple bottom line,” has environmental impacts, business/economic impacts, and societal impacts. The triple bottom implies that sustainability happens at the intersection of environmental, economic, and societal influences (Savitz, 2006).

However, the ensuing issues include how and why some building occupants are sustainable while others choose not to be sustainable and how the sustainable building interacts with its occupants. Previous consumer studies have shown that many consumers have intentions to be sustainable; however, few intentions actually turn into sustainable actions (Phipps, et al., 2012; Brown, Dowlatabadi, & Cole, 2009; Rettie, Burchell, & Riley, 2012; Cohen & Reed, 2006; Wyer Jr., 2008). The intention of a sustainable building is to be less environmentally damaging to the environment, create a healthy environment for its occupants, and to provide a safe structure for its users (Yudelson, 2008). While some intentions will result in sustainable behaviors, no extant literature has the ‘magic formula’ for illustrating all intentions lead to sustainable behaviors. While this study also will not find that ‘magic formula,’ through qualitative inquiry, this study asks two important interrelated questions:

How do living and/or working in sustainable buildings change people's sustainable intentions and actions, and how do people change the intentions and actions of sustainable buildings?

The purpose of this study is to understand the interplay between sustainable buildings and its occupants' intentions and actions and the occupants' intentions and actions on sustainable buildings, which will be used to form a conceptual framework that policymakers, marketers, architects, designers, researchers, and other professionals can use to close the gap between sustainable intentions leading to sustainable actions. Through using Anthony Giddens' (1984) structuration theory as the theoretical framework, I examine the impact sustainable buildings have on its occupants and the impact occupants have on sustainable buildings. Structuration theory is used to illustrate how a sustainable building can structure individual action and how sustainability can be changed by human action, known as the “duality of structure” (Giddens, 1984). Giddens coined ‘structuration theory’ as a micro- and macro-level sociological theory to illustrate how individual actions can reshape larger social structures (i.e. sustainable buildings

and policies) and norms, (i.e. sustainable actions), while at the same time showing how social structures and norms can reshape individual actions (Elliott, 2014). Giddens emphasized that actors (i.e. consumers) use rules and resources to sustain and reproduce structures. Applying structuration theory to how sustainable buildings change sustainable intentions and actions of its occupants and how the occupants can change the sustainability of a building, the sustainable building can act either as a structure or as an agent. In this case, if the sustainable building is acting as the “structure” for sustainable action, the building will act as a role model, or an influencer, for the occupants (in this case, the “agents”). However, if the occupants are acting as the “structure,” the influence of the sustainable building as an “agent” may have little influence on changing the intentions and behaviors of its occupants to be more sustainable. Using structuration theory as a framework, one can ask the following questions: Are sustainable buildings functioning at their full potential if its occupants (consumers) are not sustainable? Do sustainable buildings change the occupants’ sustainable intentions and behaviors? Do occupants know how to use sustainable buildings? How do occupants change the sustainable actions of buildings? And, most importantly, what is the *interplay* between sustainable buildings and its (un)sustainable occupants?

This study uses a qualitative method of semi-structured, in-depth interviews to understand this interplay between occupants’ intentions and actions and the sustainable building. As LEED is the most widely accepted and known sustainable building benchmark in the United States, this study interviewed occupants who lived and/or worked in LEED-certified sustainable buildings. Participants did not have to both live and work in a sustainable building; however, of the 17 participants interviewed thus far, 13 lived and worked in a sustainable building. All interviews are digitally audio-recorded, at the permission of the participants. As of now, I am in the process of transcribing the interviews verbatim. I also plan to conduct 8-13 more interviews.

As the collection of data is not yet completed and not all the interviews are transcribed, findings are based on very preliminary results and analysis. Through coding the transcripts, five to six themes will emerge. These five to six themes will help formulate an emergent conceptual model that will contribute to the research areas of marketing, management, policy, sustainability, and architectural design. I strive to provide insights for policymakers, business professionals, researchers, and designers that we cannot assume living and working in a sustainable building will make its occupants be sustainable. I integrate the concepts of sustainability, sustainable consumption, and sustainable building to examine the occupants’ dual role in living and working in sustainable buildings. The preliminary findings and past literature indicate that designers, builders, businesses, and the USGBC should have more influence in policymaking, and more needs to be done by the buildings’ occupants to create the dual role of a sustainable building—where the building is sustainable and its occupants are sustainable.

In this research study, I first present a background of sustainability and sustainable buildings, and their influence in recent years. Second, I present a background on sustainable consumption, its contributions to marketing and business, and how it is related to the building industry. Following the theoretical foundation, grounded in Giddens’ structuration theory (1984), I discuss the methodology and researcher’s stance. Finally, after all data is collected and analyzed, I will conclude the qualitative study with the findings and conceptual framework, policy and practical implications, study limitations, and future research opportunities.

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