BARRIERS IN GREEN BUILDINGSADOPTION: A CONCEPTUAL REVIEW

Dr. Deepak Jain, Jammu &Kashmir

Dr. Madhavi Madireddy, Aurora's PG College, Hyderabad, Telangana

ABSTRACT

A green building lives up to its name and is designed and constructed in a way that does not compromise the environment and health concerns. Due to global warming, governments and the public are demanding environmentally friendly materials and construction methods. Master these skills gradually. The sustainability of building processes is hampered by several factors. The lack of cost savings and poor reliability are known as three major problems. It is important to make sure people understand the economic and environmental benefits of adopting a sustainable housing approach.

*Keywords-***Green Buildings (GB), Eco-friendly, Green Factors**

INTRODUCTION

Green construction refers to construction methods, procedures and materials that are less resource intensive or less polluting than traditional methods and materials. Green buildings promote environmental protection and environmental responsibility. Green design and construction are becoming popular, but obstacles still need to be overcome. Market segmentation relies heavily on consumer perceptions of environmental issues. This article analyzes the challenges of GB technology and provides tips on how to overcome them to promote GB.

LITERATURE REVIEW

Sustainable development aims to improve the quality of life for present and future generations. The study showed that this industry is a major contributor to environmental pollution. Construction companies, on the other hand, tend to underestimate the environmental benefits of their projects and overestimate their costs. Building a GB in California costs less than 2% less than building a building under the regulations. Total construction costs are reduced by more than 10 times over the project lifecycle. This compares to an upfront cost increase of 2% to support green design.Globally, respondents are concerned about environmental issues. As customers become more environmentally conscious, they are more likely to purchase green products and services. A new study shows that environmentally conscious consumers are looking for products that are less harmful to the environment and society.

OBJECTIVE

To study the barriers influencing adoption of green homes.

RESEARCH METHODOLOGY

Two types of data need to be analyzed during the research process: secondary data and primary data. Many publicly available sources were used to obtain secondary data for this study. The questionnaire was used to interview respondents who visited residential properties to request a new home purchase. A Likert scale from 1 to 5 is used to quantify 10 variables (barriers). Statistical methods are used to analyze the collected data.

DATA ANALYSIS AND INTERPRETATION

Data were analyzed using factor analysis. This is why we look for obsolete (hidden) components to account for observable variables (specific variables). Correlation usually requires a large sample size. Greenhouse attributes were removed with SPSS as part of the exploratory factor analysis.Table 1, A good factor analysis requires a factor analysis value of 0.6. This is the second table in the report. Each variable has a sufficiently high extraction value (above the 0.50 threshold) that it can be analyzed. Therefore, all aspects will be considered in future studies.After the factors were identified using the maximum likelihood method, varimax rotations were used to refine the results. The Kaiser criterion (eigenvalues > 1) was chosen for data analysis. The Kaiser criterion requires that the coefficients have eigenvalues greater than one. As shown in Table 3, the three components have eigenvalues greater than 1. Statistics show that the impedance value variance is 74.257%.

FINDINGS

Research shows that GBs face three important challenges that includes - lack of awareness and inability to save money. People will not buy because of the lack of information. Also, consumer perception that requirements for greenhouses and premium developers may not provide sufficient cost savings. Because green homes can meet GB regulations, some may disagree with their reliability.In the case of no conscious barrier, the average value was 3.88 points and the standard deviation was 0.92 points, as shown in Table 6. As a result, the mean value of this barrier is 3.30 and the mean standard deviation is 1.12. For the barrier of reliability, the mean is 3.33 and the standard deviation is 0.58.

CONCLUSION

As the data gathered shows, there is evidence that the transition from traditional marketing to green brands is currently challenging. Many investors and customers in the Indian construction sector are reluctant to invest in or build GBs because they believe GBs are more expensive. However, the cost savings and environmental benefits of GBs cannot be ignored. Some functions of technology have long-term effects on the economy and the environment.

REFERENCES

Chan, E. W. W., Qian, K. Q., & Lam, I. P. (2009). The Market for GB in Developed Asian Cities: The Perspectives of Building Designers. *Energy Policy*, 37, 3061-3070.

Dunlap, R. E., &Mertig, A. G. (1995). Global concern for the environment: Is affluence a prerequisite? *Journal of Social Issues,* 51(4), 121-137.

Laroche, M., Begeron, J., &Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing,* 18(6), 503-520.

APPENDIX

Table-1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.707
Bartlett's Test of Sphericity	Approx. Chi-Square	4316.516
	d.f.	45
	Sig.	0.000

Sources: Primary Data

Table 2: Communalities

Barriers	Initial	Extraction
Price	1.000	.771
Fear of Cheating	1.000	.577
Low Cost Saving	1.000	.871
Uncertain Returns	1.000	.671
Lack of Faith in its Effectiveness	1.000	.720
Information is Inadequate	1.000	.832
Lack of Reliability	1.000	.853
Options are Limited	1.000	.572
Lack of Interest	1.000	.792
Unwillingness to Change	1.000	.864

Note: Principal Component Analysis.
Sources: Primary Data

Table-3: Total Variance Explained

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.183	31.842	31.84	3.18	31.84	31.84	3.04	30.41	30.41
2	2.642	26.413	58.25	2.64	26.41	58.25	2.56	25.60	56.01
3	1.601	16.005	74.25	1.60	16.00	74.25	1.82	18.23	74.25
4	.699	6.975	81.23						
5	.599	5.978	87.21						
6	.456	4.548	91.76						
7	.264	2.631	94.39						
8	.227	2.261	96.65						
9	.186	1.856	98.50						
10	.148	1.496	100.00						

Note: Principal Component Analysis
Sources: Primary Data

Table-4: Component Matrix

Barriers	Component		
	1	2	3
Information is Inadequate	.835		
Price	.837		
Lack of Interest	.841		
Lack of Faith in its Effectiveness	.828		
Lack of Reliability		.878	
Low Cost Saving		.866	
Unwillingness to Change		.864	
Uncertain Returns			.728
Fear of Cheating			.680
Options are Limited			.645

Note: Principal Component Analysis
Sources: Primary Data

Table-5: Rotated Component Matrix

Barriers	Component		
	1	2	3
Information is Inadequate	.912		
Lack of Interest	.885		
Price	.884		
Lack of Faith in its Effectiveness	.826		
Low Cost Saving		.929	
Lack of Reliability		.925	
Unwillingness to Change		.924	
Uncertain Returns			.812
Fear of Cheating			.756
Options are Limited			.742

Note: Principal Component Analysis.Varimax with Kaiser Normalization.

Sources: Primary Data Analysis

Table-6: Summary of Barriers for Adoption of GB

Lack of Awareness Mean – 3.89 S.D. – 0.91	0.89	Information is inadequate	3.96	1.08
		Lack of Interest	3.86	1.07
		Price	3.85	1.05
		Lack of Faith in its Effectiveness	3.88	1.01
Lack of Cost Savings Mean – 3.31 S.D. – 1.13	0.91	Low Cost Saving	3.28	1.19
		Lack of Reliability	3.27	1.22
		Unwillingness to Change	3.37	1.23
Lack of Reliability Mean – 3.34 S.D. – 0.58	0.65	Uncertain Returns	3.38	0.64
		Fear of Cheating	3.33	0.77
		Options are Limited	3.33	0.82

Sources: Primary Data

*****