

PROLIFERATION OF SUSTAINABLE ARCHITECTURE THROUGH MARKETING A CASE STUDY FOR SUSTAINABILITY MARKETING CONCEPTS IN THE PR CHINA

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ABSTRACT: Focussing on design and engineering architects often forget to translate the quality of their „products“ into customer value. Understanding this weakness architects have to increase their commitment to marketing. This paper analyses the base for a successful “sustainable architecture” marketing concept with an international perspective. It evaluates the fast growing market potential for sustainable architectural services in the PR China. A sustainable prototype of the author designed and supervised for the PR China serves as case study to evaluate the results of this analysis. As conclusion appropriate marketing strategies for architects and designers with a sustainable or environmental focus are given. It will show the drivers and barriers of entering foreign markets with the innovative product “Sustainable Design” or “Environmental Friendly Architecture”. The research findings are valuable for designers and architects who want to enter the Chinese market as well as for companies that already completed projects in foreign markets and want to expand or specialize with an environmental focus.

KEYWORDS: Sustainability Marketing, Marketing of Sustainable Architecture, Architectural Marketing, Real Estate Market in the PR China

1. INTRODUCTION

In line with the advancing process of globalisation architects all over the world are facing fundamental changes for their work. Therefore Architects need to step into the international markets and bring proof of the competitiveness of their planning services.

Today numerous former underdeveloped regions of the world experience a growth in economy combined with a booming building sector. This creation of value within the real estate field must be seen alongside with its possible negative consequences in the matters of ecology, social life and culture. This in turn leads to an increasing responsibility of architects towards sustainability.

Since the 1990's the PR China is one of the world's fastest growing markets in the building sector. Forecasts by the World Bank see 50 % of all global building activities until 2015 taking place in China (1). Facing upcoming grave ecological problems and living through more and more social and cultural changes China develops a significant need for sustainable planning services.

Taking the PR China as a case study market this paper will analyse the methods to improve the customer perception and market standing of Sustainable Architecture in an international context.

2. SUSTAINABILITY MARKETING

Sustainability Marketing integrates social and ecological aspects into the entire marketing process. It includes eco marketing, generating the customers wish for eco products and services and contains long distance tasks like influence on the user's lifestyle or on politics. In addition the aspects of social responsibility within the Societal Marketing are considered. Enlightened Marketing principles like customer focus, value, and innovation form the base for Sustainability Marketing.

Charter, Peattie, Ottmann and Polonsky define Sustainability Marketing as a concept beyond Eco Marketing, aiming for a “Triple Bottom Line“ (2). Sustainable solutions are produced

and delivered with an increased sustainability value. Customer requests are fulfilled just as third party's (stakeholders) needs are met.

To succeed in Sustainability Marketing all participants have to live it. The corporate management, employees, suppliers and customers need to act with social and ecological awareness on the normative level, making it part of their business policy (3).

3. MARKET POTENTIAL IN PR CHINA

In April 2005 Wang Guangtao, the Chinese Minister for Building and Planning framed the governmental attitude towards sustainable building in the PR China in front of the UN Commission as follows: “Achieving sustainable development is an important and pressing task faced by all countries in the world. Since the conference on Environment and Development and the World Summit on Sustainable Development all countries have made important strides in coordinating and harmonizing economic development with efforts in the fields of population, resources and the environment...”

...However, at the same time the degradation of the global environment has shown no signs of reversal.... The government (of the PR China) is committed to building a harmonious society.... by implementing a balanced approach to development: balance between urban and rural development, balance among regions, balance between economic and social development, balance between development and nature” (4).

Two years later Hu Jintao, the General Secretary of the Central Committee of the KP China, called for an “ecological civilization” at the 17th National Congress in October 2007. China Daily, the official Chinese-English Newspaper defined the essential significance this call has related to the guidelines for the future ecological development of the PR China:

„It is not a term the Party has coined just to fill a theoretical vacancy in its socialism with Chinese characteristics, but rather a future-oriented guiding principle based on the perception of the extremely high price we have paid for our economic miracle. This concept reflects an important change in the

Party's understanding of development. Rather than emphasizing economic construction as the core of development as it did in the past, the Party authorities have come to realize that development, if sustainable, must entail a list of elements including the right relationship between man and nature." (5)

There is an urgent need for action, as the speeding economical progress in China fuels the already existing environmental problems. Besides energy efficiency and preservation of resources, it is the sustainable planning and building business the Chinese government has its eyes on, visible in new laws, regulations and promotion through government aid. A general environmental awareness is arising, supported by the daily press, forming a new market with remarkable chances for planners and architects.

4. CONCEPTUAL FRAMEWORK

Belz and Karstens include in their conceptual framework for Sustainability Marketing six steps: analysis of socio-ecological problems, analysis of consumer behaviour, Normative-, Strategic-, Instrumental- (Operative) and Transformational Sustainability Marketing (3): The analysis of socio-ecological problems takes place on a wide common level as well as on the product. The product-related socio-ecological impacts have to be considered for the whole life-cycle of the product.

According to Erich and Holdren the environmental load caused by humans is a result of the factors population, affluence/per-capita consumption, and technology. Out of this they generated the IPAT Formula:

$$\text{Impact} = \text{Population} \times \text{Affluence} \times \text{Technology} \quad (6)$$

Using this formula for the case study of the PR China we find following results:

- Population

The PR China is the most populous country worldwide, having 1.328.630.000 inhabitants in 2008. (7)

- Affluence

In 2002 already 239.000.000 inhabitants belong to the „Global Consumer Class“.(8)

- Technology

In the PR China the input side (consumption of resources per unit of consumption) as well as the output side (environmental load per unit of consumption) add up to the environmental pollution. (9)

The factors population and affluence are given and increasing facts. With its fast growing number of consumers the PR China has a significant impact on the local and global environment. Nevertheless technology is the most substantial factor here. Efficiency of resources must be improved. Hence a market for energy efficient buildings is forming. (10)

Conventional Marketing leads to consumption and a materialistic lifestyle, while Sustainability Marketing may assist the development and spread of sustainable solutions and products.

In the second step the consumer's behaviour needs to be analysed, also focusing on social and ecological problems. A successful marketing for sustainable services and products has to provide an ad-on value in comparison with the additional costs. Individual and situational factors, like an individual cost-benefit-analysis, influence the customer's decision for purchase. Diverse customer's groups need individual analysis: sozio- ecological active, socio-ecological sensitive and socio-ecological passive (3). Each group requires its special marketing approach regarding the consumer's needs. Therefore the inter-action of socio-ecological problems and customer's preferences form the base for Sustainability Marketing.

The third step will look at the normative aspects of Sustainability Marketing. According to Belz a company's management and culture are the mayor factors for the success of Sustainability Marketing (3). Corporate Sustainability Mission Statements, goals and principles have to be created and implemented into everyday performance throughout in- and outside the company. The classic market oriented approach integrates customer's needs, customer's behaviours and the competitive situation. Additionally there have to be environmental oriented philosophy and objectives in the leadership.

Step number four analyses the strategic consequences resulting from the corporate commitment to sustainable actions.

Strategic Marketing supports the basic business strategies of a company. According to Michael Porter (11) there are three general approaches to gain a competitive advantage: differentiation, cost leadership and segmentation. A sustainability approach may deliver unique features and competitive advantage. Strategic approaches have to be developed for the product- or service- qualities, market segmentation, targeting, positioning, and the strategic timing for market entry (3).

The fifth step is the Operative or Instrumental Sustainability Marketing (3). First the diverse target groups have to be analysed. Belz, Pant and Sammer (12) identify three customer groups within the building industry: owners, owners with commercial interest, and non-profit owners. Also developers and investors are additional client groups to be analysed. For all these diverse customer groups motive alliances have to be developed as well as a Marketing-Mix-Concept for the product design, pricing, distribution and communication. According to McDonough, Braungart the complete life-cycle of the product "From Cradle to Cradle" needs to be considered, altering the conventional "Cradle to Grave Concept". The future value of all elements has to be considered. Intelligent use of materials will keep their value in a sustainable recycling process. (13).

Finally step number six, the Transformative Level according to Belz will result in changes in public business conditions and political framework. Traditionally the Macro Environment formed the base for marketing. As this framework has often a negative impact on sustainable buying behaviour, the general business conditions within the Marco Environment need transformed to foster the marketing of sustainable products beyond their market niche successfully (3).

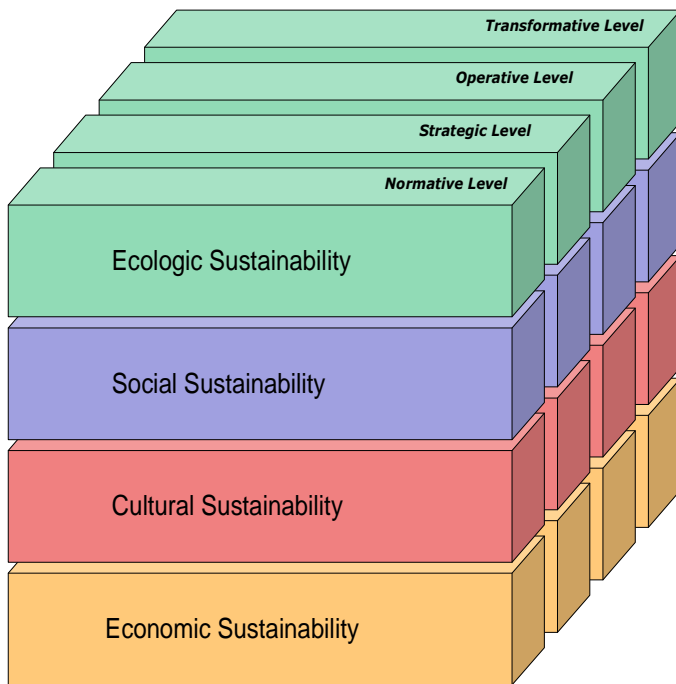


Figure 1. Levels of Sustainability Marketing (14)

Table 1 shows the four-step marketing concept including the Normative, Strategic, Operative and Transformative Level combined with the components of ecological, social, cultural and economical sustainability. This adds up to an overall picture for Sustainability Marketing.

5. CASE STUDY: “SUSTAINABLE LOW COST LOW SCALE RURAL HOUSING PROTOTYPE” FOR NEW ZHEN SHAN

With the new millennium the PR China set off to find a balanced way of economical growth and sustainable development, balancing urban and rural progress, economical and social improvement, as well as growth and use of natural resources. Therefore the Ministry of Science and Technology of the PR China started a research program for „Green Buildings in Cities and Small Towns“. A project called „Sustainable Low Cost and Low Scale Rural Housing Prototypes for New Zhen Shan“, Guizhou Province, designed prototypical approaches to reduce the migration from the underdeveloped rural areas to the booming metropolises. Decentralisation was intended to enforce local structures and support traditions. (15)

The New Zhen Shan Research Project provided essential conclusion for Sustainability Marketing for architectural services as follows:

- The potential of sustainable architecture and the marketing strategies for sustainable architectural services in the PR China have to be differentiated between the rural regions and the booming development areas.
- Marketing for sustainable architectural services in the rural regions of the PR China will be difficult for the coming years due to primary market resistance and the all-dominant issue of cost-efficiency.
- The particular interest groups have diverse values, needs and goals. To succeed an individually designed niche marketing has to be tailored, differentiating the Marketing Mix and the Communication-Level-Mix (14). A standard marketing strategy for all parties involved has to be avoided.

- Within the level „village“ the unsuccessful factor sustainability had to be replaced by the topics of costs and quality of use.
- Within the level „involved administration“ the factor sustainability was established successfully as equal positioning because it provided assistance in meeting the political guidelines of the central government.
- Within the Ministry of Science and Technology of the PR China sustainability succeeded as a dominant profile.
- In rural areas the government is the most potential client for sustainable planning services.
- The political guidelines of the central Beijing administration had mayor influence on the success of the project. Moreover the assistance of the Ministry of Science and Technology enabled the realization.
- Besides the focus on rationality, emotional and moral arguments were used successfully depending on the aim of the communication.
- The success of the whole project was closely connected to communication and consequently the Communication-Level-Mix. Therefore “Guanxi”, a relationship network of the Chinese project-partner, was of high significance.

6. MARKETING STRATEGIES FOR ARCHITECTS AND DESIGNERS WITH SUSTAINABLE FOCUS IN THE PR CHINA

Being specialized in sustainable architecture can be an essential advantage within the global competition. Environmental protection and sustainable development belong to the mayor challenges of the 21st century and will be observed throughout the world. An ecological orientation owns economical potential, which will be of growing interest in the building business.

Sustainable development is a central political topic for the PR China, based on the country’s urgent social and ecological problems. New concepts for sustainability in architecture, urban and rural development are needed because of the ecological and social transformation in the PR China, enforced through political pressure on those in charge. The goals and guidelines of the central government are reflected in the local building business.

Sustainability Marketing can not be seen as a universal remedy used on all projects and clients in the PR China. In general sustainable architectural services are not automatically welcomed by all Chinese clients, not even as “innovative products”. Often ecology collides with the superficial question of costs. Nevertheless effective approaches for Sustainability Marketing can be generated, tailored for the target group and market segment.

This academic analysis leads to the conclusion that there is no unique or standardized strategy to gain competitive advantage in the market for architecture in the PR China through sustainability marketing. To dismantle prejudices and market barriers and forge links to new customer groups the following conclusion for successful sustainability marketing may be considered.

6.1. Sustainable Architecture in the PR China

In general Chinese clients have various definitions of sustainability. Applied to architecture these interpretations not

always follow the ideas of the Agenda 21 or the United Nations Conference on Environment and Development (Rio Summit). They rather reduce sustainability to ecological or “Green Architecture”.

Many clients are irritated and put off by the additional dimension of socio-cultural sustainability to architecture. Furthermore there is a political double edged connotation for socio-cultural sustainability within the PR China, whereby sustainable “Eco-Products” are easier to merchandise than socio-cultural ones.

In the eyes of the Chinese clients sustainable architecture has to be “economical sustainable”, as this goal is omnipresent. Economical sustainability is often misunderstood as a kind of short-term optimization on the return of the initial investment. Therefore it is necessary to ensure that through the process of marketing, acquisition and the course of the project architects and their Chinese clients follow the same intention on sustainable architecture.

6.2. Sustainability Marketing as Market Focussed Management Tool

Successful Sustainability Marketing in the PR China can not be reduced to advertisement and distribution, but has to be a market-oriented business management tool. It is the base for architects to build up an office culture and philosophy focused on strategic long lasting customer relation development.

Sustainability Marketing helps to analyse the needs of customers and users and develops the design following these insights. On the one hand active adaption to these needs take place, on the other hand there is a positive influence on and further development off the customer’s behaviour.

6.3. Intercultural Understanding and Guanxi

All activities within the PR China need understanding and acceptance of the Chinese culture as well as the balance and compromise of cultural differences.

Foreign architects need to bring in transcultural flexibility and intelligence, modulating their familiar ways of thinking, planning and realizing projects. The assignment of a Chinese partner helps to cut the costs due to low labour costs and provides synergies during the acquisition and design phase due to the closeness to the clients. Additionally the Chinese partner will provide a cultural input that enables a successful intercultural communication.

He will foster the sensible adjustment of the design and the building process and therefore help to guarantee high quality. Chinese partners can support the formation of the Chinese network of Guanxi, which is essential for a long-term success in the PR China. Thus the selection of the associate local partner or subcontractor has a mayor influence on this success.

6.4. Communication as a Key Point

Communication for architectural services in the PR China is very complex, as it has to be planned strategically. It has to consider all effected levels individually (communication-level-mix), using ideally successful projects as references, as rational arguments are preferred by all levels and target groups.

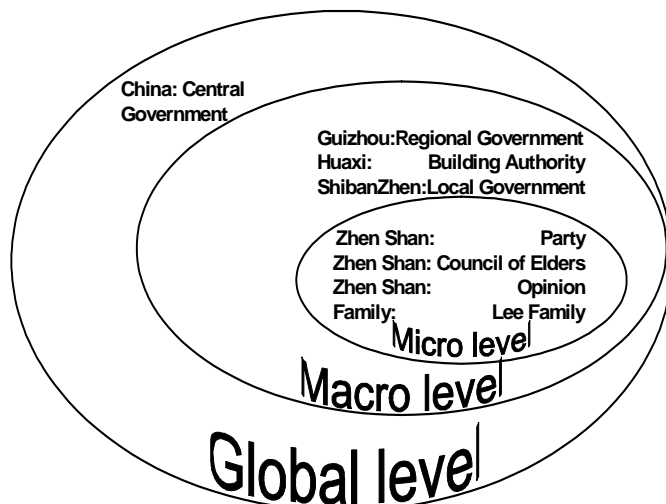


Figure 2. Communication Level Mix for New Zhen Shan

6.5. Timing for Innovation Marketing

Looking at the newspapers and official political statements in thee PR China may lead to a wrong conclusion. In contrast to the guidelines of the Central Government the Chinese market for real sustainable architecture is still a niche market with no broad acceptance by the Chinese investors and affected by demand-related market barriers. There will be an increase in costs for acquisition and planning optimization, but the reward will be a secured market position at an early stage.

The entry into new markets should never be initiated as a solution for business problems on the home market like drop in orders or deficient income. The opening up of the market for sustainable architecture can only be successful being based on a structural and economical healthy office, as the fees for the more complex sustainable design services are unlikely higher than on conventional projects. Only projects with a referent power, called “lighthouse projects” may provide additional income. Financial risks and inevitable additional investments should be taken into consideration.

6.6. Legal Limits

Due to legal and/or economical reasons Chinese clients generally tend to assign only the conceptual design and in rare occasions enlarged design and parts of the detail design. This results in a reduction of the total fee and is in contrast to the required investment into quality management for sustainable architecture.

6.7. Influence of Politics

The real-estate market in the PR China is substantially influenced by politics. The official guidelines, especially the ones by the central government in Beijing, have to be closely monitored while planning strategies. Over the past years the political “push-factors” set the course in favour of sustainable architecture.

Political measures since 2004 against an overheating of the real-estate market influence the consumer’s attitude, just as well as the glut on the market in several sectors of the boom-regions and the global economical crisis in 2008. This all leads to an economic recession in parts of the real-estate sector and a tightened competition among the planners. The relevance of additional value through sustainability is an essential decision-

making factor in the sector of high-priced high-quality property purchase.

6.8. Niche Marketing

Sustainability Marketing for architectural services in the PR China needs to be a tailor-made niche marketing preferably for the urban boom regions. Every potential target customer has to be addressed individually.

Most of all the socio-ecological active or sensitive are the target groups, as Sustainability Marketing can be more successful with planners and clients sharing the same attitude towards sustainable architecture. At this time these target groups are still small in number in the PR China, nevertheless there is potential capacity among politicians and investors. To increase the demand politics and science have to pave the road focussing on the ecological and social problems in the PR China.

Public clients and investor-user clients with a long-term perspective carry the major potential for Sustainability Marketing for Architecture in the PR China. Motive alliances using sustainability, foreign image and quality should be used for the marketing process.

Being still a niche product on the Chinese market, in most cases sustainability for architecture can only be a flanking profile for the project. Sustainability as the dominant characteristic will only work for especially targeted projects, used for clients with the same focus.

According to evaluations on parallel market developments of sustainable products (e.g. the food sector) a tendency for the market opportunities for sustainable architecture is visible. The possible future development will allow to step out of the limited niche and open up new market segment and customer groups.

7. SUMMARY

The production and use of real estate causes a large share of the global solid waste and other pollutants. Architecture has a huge impact on energy consumption, carbon dioxide production as well as on socio-cultural change. So proliferation of sustainable architecture is not only a question of global economic competitiveness but also part of the architects' responsibility for the planets future.

This paper analysed the today requirements for Sustainability Marketing as a competitive advantage using Sustainable Architecture in the PR China as case study. Summing up it can be attested that Sustainability Marketing is a capable approach to open up the Chinese market within the global competition. Even though Sustainability Marketing for architectural services in the PR China has to deal with market resistance, there are successful marketing strategies for selected market segments and target groups.

It is essential to bear in mind that the real-estate market, as much as all other markets in the PR China, is subject to a fast and continuous change. So all strategic and operative approaches in Sustainability Marketing need to be evaluated and readjusted permanently. This applies in particular for the individual Marketing Mix and the Communication-Level-Mix. Research on these issues has to be continuous.

To face the responsibility for sustainable development it will be insufficient just to monitor these modifications for sustainable services and consequentially reconcile the

Sustainability Marketing. The economic and political Macro Environment of the PR China is in flux and can and should be influenced in terms of sustainable architecture through lobbying in environmental and social politics. Influence on the macro environment should not be based on prejudice and guesswork. Instead architects using research results must win the politicians and the industry as partners for sustainable projects in the PR China.

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