



SUSTAINABLE DEVELOPMENT AND CYBERNETIC CONTROL MODEL OF INDIAN COASTAL TOURISM

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ABSTRACT

Tourism is one of the favourite pastimes of tourists from across the world and is rated as the most important tourist segments all over the world. It has diversified into various products and packages. Coastal tourism is recognized as a highly valuable revenue earner. India's coastal areas have a huge economic potential and they attract tourists from all over the world due to immense scenic beauty. Obviously, this fastest growing industry also has an impact on local development and related environment, e.g. the marine environment is put under immense pressure by this. Healthy and sustainable coastal tourism requires attractive, safe and functional recreational beaches, clean coastal waters and healthy coastal eco-systems.

The present paper aims on what need to be done to move towards more sustainable coastal tourism. The important actors recognized for this are training of frontline service workers for improving the performance of "emotional labour", exploiting the food and beverage segment in context with Indian FMCG industry. Finally, a cybernetic model has been suggested for effective communication and control of the major activities related to Indian coastal tourism. The model suggest to divide the Indian coastal activities into various modules based on the geographical topography and considers the effectiveness of information flow - and particularly, the nature of filters and relative time lags around these module loops. The recursive characteristic of the model makes it competent for any such related activities. It is believed that the present paper will be highly useful to understand the role of various underlying actors necessary to achieve sustainable coastal tourism in India.

1. INTRODUCTION

Tourism over the years has diversified into various products and packages. Coastal tourism, which is one of the favourite pastimes of tourists from across the world and is rated as the most important tourist segment all over the world. Countries with the advantage of having beautiful coastal stretches are vying with one another to promote coastal tourism with a lot of new activities like sports, cultural festivals and nature trips. This has led to the search for the new destinations, which are increasingly becoming the focus of developmental activities.

In the modern era, the marine environment is put under immense pressure by a rapidly growing tourism industry. With technological advances, increased leisure time and disposable incomes, the marine environment is attracting large number of people, ranging from the sun-seekers to the whale watchers. Shorelines and coastal zones of the continents are home for the almost half of the world's population. Activities carried out by this population have an immeasurable impact on the coastal zones. Coastal areas support a wide range of economic activities, which may be classified as resource and non-resource based. However, a tourist site in coastal areas is nature's precious resource or gift.

The present paper focuses on the potential of coastal tourism in India and brings out the need of promoting more effective coastal management and sustainable coastal tourism for India. It aims on what need to be done to move towards more sustainable coastal tourism. The first important actor recognized for this is the training of frontline service workers in the tourism and hospitality industries for improving the performance of "emotional labour". Second, is striving to exploit the food and beverage segment related to coastal tourism with respect to Indian FMCG (Fast Moving Consumer Goods) industry. If statistics is to be believed, this segment would be a major avenue of innovation in days to come to achieve sustainable coastal tourism, e.g. Rs. 22,513 crores Indian food and beverages market is still in lacklustre state. Finally, a cybernetic model has been developed and suggested for effective communication and control of the major activities of the Indian coastal tourism. The model suggest to divide the Indian coastal activities into various modules based on the geographical topography like western coastal region, eastern coastal regions etc. The nature of the cybernetic model is to make clear, how these modules actually work, so that it may be streamlined and made more effective. The model also

considers effectiveness of the information flow - and particularly, the nature of the filters and the relative time lags around the separate module loops. The recursive characteristic of the model makes it competent for any such related activities. It is believed that the present paper will be highly useful to understand the role of various underlying actors necessary to achieve sustainable coastal tourism in India.

2. COASTAL TOURISM IN INDIA: A GLIMPSE

India is a major sea front nation with a mainland coastline of 5422 kms and island coastline of 2094 kms extending from Kutch in the west to West Bengal in the east. The landside coastal features vary distinctively from east to west. Table 1 shows the coastal states in India along with the important beaches.

Table 1: Indian coastal states and important beaches/areas.

Sr. No.	States	Beaches/ Areas
1.	Gujarat	Ahmedpur Mandvi, Chorvad, Ubhrat, Tithal, Porbandar, Dwarka, Somnath
2.	Maharashtra	Dahanu-Bordi, Marve, Gorai, Manori, Mandwa, Alibag, Ratnagiri, Malvan
3.	Goa	Colva, Calangute, Miramar, Candolim, Sinquerim, Baga, Bambolim, Arambol, Vagator, Benaulim, Palolem, Agonda, Mobor
4.	Karnataka	Karwar, Netrani, Malpe, Murdeshwara, Maravanthe, St. Mary's island
5.	Kerala	Kovalam, Beypore, Cherai, Chithari, Kozhikode, Muzhapilangad, Varkala
6.	West Bengal	Digha, Shankarpur, Junput, Bakkhali, Frazergunj, Sagardwip, Sunderban
7.	Orissa	Puri, Chilka lagoon, Chandipur, Sonpur, Gopalpur, Chandrabhaga
8.	Andhra Pradesh	Bheemunipatnam, Vishakhapatnam, Manginapudi, Ramkrishna, Vodarevu
9.	Pondicherry	Paradise, Serenity, Aurobindo Ashram
10.	Tamil Nadu	Marina, Dakshinachitra, Muttukkadu, Tharangambadi, Velankanni

The economic transition of developing countries has turned increasingly towards tourism and leisure production. Tourism development contributes

to employment opportunities and local area development. There is a complex relationship between tourism development, regional development and local communities. The integration of tourism to regional and community development goals has to be examined. It has social, economic and environmental costs in the particular areas. There is a always conflict between environment and development. Environment comes under attack and the livelihoods of the poor are put at tremendous risk in any tourism related development projects. Environmental and livelihoods justice requires a long-drawn battle between nature and its ‘developers’. The uncontrolled expansion and unscientific management of resources in the tourism spots and surrounding sites led to the spoiling of their pristine beauty. Adding to these manmade menaces, there is also a negative impact of the climate change, rising sea levels and sea storms that eat away coastal lines and wash away the natural barriers like reefs and mangroves. Any tourism industry activities in the coastal zones should take into account many factors, which will have direct and indirect impact on the eco-system, e.g. in the case of hospitality sector, resource use pattern, local vegetation, waste generation and disposal mechanism are to be regarded as of utmost importance for any coastal tourist destinations. If the importance of these factors is neglected, it will have serious repercussions in the long run. In coastal tourism, the intricate and delegate interplay of human activity with coastal eco-system is a vital phenomenon that has to be monitored continuously. Any over enthusiastic attempt will overburden the resources and will prove to be detrimental to the shorelines and coastal zones, adversely affecting natural resources of these eco-systems.

Coastal tourism should follow sustainable development models to fully protect the environment on which the tourism activities depend. The long-term solutions may be provided by prioritizing sound environmental management.

3. IMPROVING THE PERFORMANCE OF ‘EMOTIONAL LABOUR’

Many workers in the tourism industries are classified as ‘frontline’ service workers, whose jobs involve direct customer contact. Speaking and acting in such work involves displaying emotions, which demonstrates a willingness to be of service. The management of such emotional display has become known as “emotional labour”, which may be defined as:

“The effort, planning and control needed to express organizationally desired emotion during interpersonal transactions”.

The various defining features and implications of frontline work are:

- It is people oriented as employees are required to interact constantly with customers in ways that are advantageous to the firm’s goals. Workers are “on stage” that involve emotional labour.
- It is rarely completely routinized because social interaction is a part of the product or service being supplied.
- It is sensitive to changes in the internal and external organizational environments as the employees are expected to “go with the flow”, to display emotional resilience and flexibility.
- It is often strategically important, which reflects the position of such employees at the firm-public interface. They are required to perform an intelligence-gathering role and develop customer knowledge base for future innovation.

It has been widely accepted that the delivery of the quality service (performance with emotional labour) commences with the selection of suitable employees and the provision of appropriate training. This definition highlights employer’s role in directing their employee emotional, as well as physical movements. Also, according the general literature, the service persons must deliberately involve his or her feelings in the situation and may not particularly feel like being cordial and becoming a one-minute friend to the next customer who approaches, but that is indeed what frontline work entail”. In other words, service workers must manage their own emotions and emotional display to create a favourable atmosphere in which the interpersonal transactions take place.

The importance of the effective performance of emotional labour is demonstrated in relation to perceptions of service quality. On the basis of exploratory research, the SERVQUAL scale of service quality has the following dimensions:

- Tangibles: physical facilities, equipment, appearance of personnel
- Reliability: ability to perform the promised service dependably and accurately
- Responsiveness: willingness to help customers and provide prompt service

- Assurance: knowledge and courtesy of employees and their ability to inspire trust and confidence
- Empathy: caring, individualized attention the firm provides its customers

There is evidence that employee personality is an important factor in effective service provision in the area such as hospitality and tourism, but there is a little direct evidence about the interaction between employee personality, effective performance of emotional labour and approaches to selection and training. Figure 1 set out the key types of linkages that explains its underlying conceptual framework.

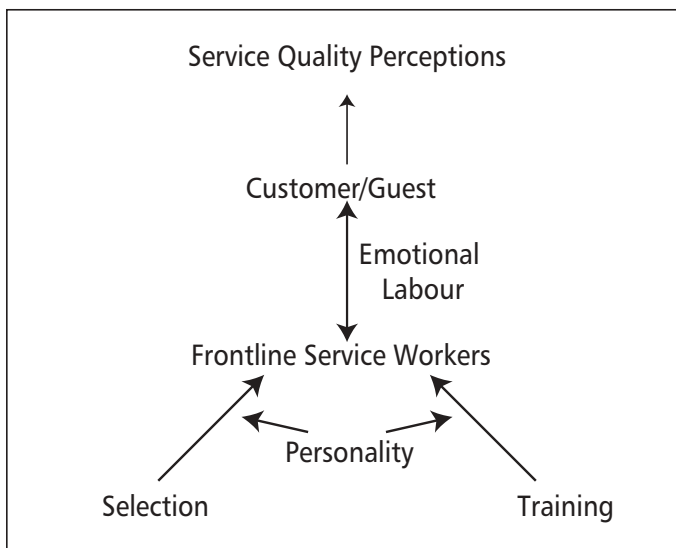


Fig. 1: Conceptual Framework of “Emotional Labour”.

The key themes / issues that emerged after analyzing the data are as follows:

Issue 1: Significance of emotional labour to managers and workers

The performance of the emotional labour is largely unrecognized. Some believe that it is a part of the job and cause no difficulties for them. Some also recognized it to be an integral part of their jobs and acknowledged the challenges it posed but in general the majority of the managers and service workers are not familiar with this term.

Issue 2: Manager's and worker's appraisal of how personality impacts on the performance of emotional labour - Training Implications

The managers and service workers must equate the performance of emotional labour with "the right personality" and being a "people-person". The importance personality must be reflected in the selection procedure and must be given more significance than technical skills.

Issue 3: Training and consideration given to emotional labour

There must be more provision for induction programs and formal training for service workers to enable them to cope with the demands of the performance of emotional labour. The informal "on-the-job" training must also be given due importance.

4. EXPLOITING THE FOOD AND BEVERAGE (F&B) SEGMENT IN CONTEXT WITH INDIAN FMCG INDUSTRY

India has always been considered a paradise for FMCG (Fast Moving Consumer Goods) sector simply because of the population of the country and is a key contributor to the GDP of the country. These firms are vulnerable to the swings in the commodity prices as a factor of their input cost. So far as the beverages are considered, Indian FMCG market has largely been under exploited. If statistics is to be believed, this segment would be a major avenue of innovation in days to come to achieve sustainable coastal tourism, e.g. Rs. 22,513 crores Indian food and beverages market is still in lacklustre state. According to an estimate, Indian food and beverage market has grown only 5.5%, which is 1.5% more than the global average. Only 2% of the fruit and vegetables produced in the country are processed domestically. The reason being, India lags way behind in the non-alcoholic segment, one of the promising categories of the F&B segment. The non-alcoholic segment that comprises products like bottled water, tea, coffee, chocolates, carbonated and non-carbonated drinks grew by a miniscule 1.5% in India. Table 2 shows a glimpse of the performance of this sector in comparison with average global growth.

Table 2: Comparison of India and global average sales for non-alcoholic beverages.

Sr. No	Non-Alcoholic Beverages	India (% sales)	Global Average (% sales)
1.	Health drinks	2	8
2.	Coffee	1	0
3.	Concentrated drinks	0	2
4.	Non-carbonated drinks	29	8
5.	Tea	3	4
6.	Bottled water	1.5	6
7.	Dairy milk / cream	3	4

A SWOT analysis of the F&B segment of Indian FMCG sector for coastal tourism development can be performed effectively on the following points as shown below:

Strengths

- Distribution network extending to the rural areas
- Presence of strong brands in the product line
- Availability of wider range of products in the basket
- Access to low-cost manufacturing
- Awareness levels are high on the availability of products

Weaknesses

- Relatively lower levels of exports of goods
- Small scale sector has limited ability to invest in the technology
- Economics of the scale is available only to a handful of producers
- Several producers end up making available the “me-too” products

Opportunities

- Size of the domestic market
- Export potential remains untapped and is an opportunity
- Gradual increase in the income levels of the masses
- Growth of retail industry throws up a new channel of distribution

Threats

- Imports from low cost producers such as China
- Tax and regulatory structure
- Slowdown in the rural demand on the back of an agricultural slowdown

5. CYBERNETIC CONTROL MODEL OF EFFECTIVE MANAGEMENT OF INDIAN COASTAL TOURISM INDUSTRY

A cybernetic model has been developed and suggested for effective communication and control of the major activities of the Indian coastal tourism industry. The model suggest to divide the Indian coastal activities into various modules based on the geographical topography like western coastal region, eastern coastal regions etc. The nature of the cybernetic model is to make clear, how these modules actually work, so that it may be streamlined and made more effective. The model also considers effectiveness of the information flow - and particularly, the nature of the filters and the relative time lags around the separate module loops. The recursive characteristic of the model makes it competent for any such related activities (Refer Figure 2). The divisions or modules may be made based on the region wise like south, west, east, south-west or south-east etc.

6. CONCLUSIONS

Coastal tourism should follow sustainable development models to fully protect the environment on which the tourism activities depend. The challenge for its developers and operators is to conserves associated natural resources as well as minimizes any negative environmental, ecological, social and cultural impacts. The long-term solutions may be provided by prioritizing sound environmental management. Tourism will be ecologically sustainable, if it has no impact on bio-diversity and ecological systems and processes and maintains a full range of recreational, educational and cultural opportunities for the present and future generations. Tourism has to benefit local communities and the regions socially and economically. It should not affect the capacity of the other sectors of the economy to achieve ecologically sustainability. It should not use non-renewable resource faster than they can be replenished. Operational energy consumption from tourism projects should be as low as possible and they should not pollute the surrounding environment.

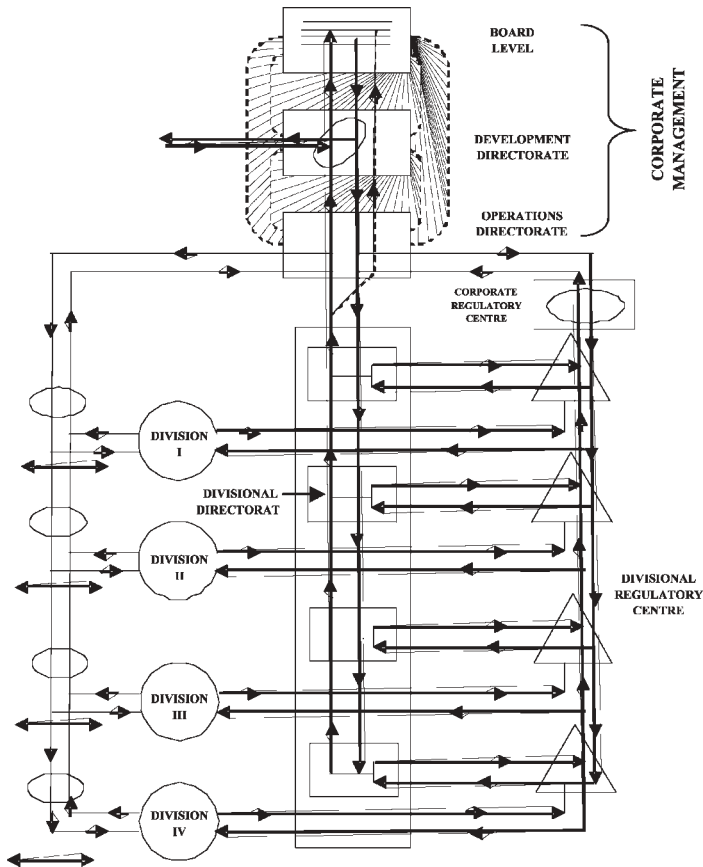


Fig: 2: Cybernetic model for the control of coastal tourism activities.

The two actors responsible for developing sustainable coastal tourism described in the present paper, i.e. training of “frontline” workers for the performance of emotional labour and exploiting F&B segment of Indian FMCG sectors are the possible solutions for it. The three issues discussed could be effectively considered for the conducting a case study of the employees in the coastal tourism and hospitality industry. The effective selection and training both formal and informal methods may be utilized for increasing the performance of the emotional labour. Also, the % contribution of Indian F&B segment is comparatively very low as compared with the leading nations in this area and provides a high potential for exploitation for sustainable coastal tourism in India by generating higher economy. The cybernetic model explained in the present paper will be highly useful in controlling the various activities of Indian coastal tourism based on the division of complete such activities into various modules. The

modules may be constructed based on regional geographical topography. Thus, it could be stated that sustainable tourism development requires continuing commitment and action by all concerned citizens at all levels of the government, industry and the community.

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