An empirical study of tourist preferences using conjoint analysis

Shalini N. Tripathi  
Faculty-Marketing, Jaipuria Institute of Management,  
Vineet Khand, Gomtinagar, Lucknow-226010, India  
Tel: +91 (0) 522 2394296  
Email: shalinit@jiml.ac.in  

Masood H. Siddiqui  
Faculty- Decision Sciences, Jaipuria Institute of Management  
Vineet Khand, Gomtinagar, Lucknow-226010, India  
Tel: +91 (0) 522 2394296  
Email: masood@jiml.ac.in

Abstract

Tourism and hospitality have become key global economic activities as expectations with regard to our use of leisure time have evolved, attributing greater meaning to our free time. While the growth in tourism has been impressive, India's share in total global tourism arrivals and earnings is quite insignificant. It is an accepted fact that India has tremendous potential for development of tourism. This anomaly and the various underlying factors responsible for it are the focus of our study. The objective being determination of customer preferences for multi attribute hybrid services like tourism, so as to enable the state tourism board to deliver a desired combination of intrinsic attributes, helping it to create a sustainable competitive advantage, leading to greater customer satisfaction and positive word of mouth. Conjoint analysis has been used for this purpose, which estimates the structure of a consumer’s preferences, given his/her overall evaluations of a set of alternatives that are pre-specified in terms of levels of different attributes.

Keywords: Uttar Pradesh tourism, tourist preferences, conjoint analysis, binary logistic models
1 INTRODUCTION

Tourism is a service industry; therefore, there are inherent challenges with service marketing that affect how the tourism product is communicated to the consumer public. According to Williams (2006), tourism and hospitality have become key global economic activities as expectations with regard to our use of leisure time have evolved, attributing greater meaning to our free time. This results in marketing having potentially greater importance in tourism than in other industries but sadly potential that is not always fulfilled (Morgan and Pritchard 2002). Williams (2006) believes that a major reason for such unfulfilled potential lies in most tourism marketing focusing on the destination or outlet (in other words the products being offered) and lacking focus on the consumer. Therefore, while Tourism Boards may already use a number of planned and controlled marketing activities, this paper purports that they could also exploit the destination image enhancement opportunities that exist through developing an insight about the customer/ tourist preferences and delivering the desired service package.

2 THE INDIAN TOURISM INDUSTRY

Tourism in India has registered significant growth in the recent years. In 1951, International Tourist Arrivals stood at around 17 thousand only while the same has now gone up to 3.91 million in 2005. The upward trend is expected to remain firm in the coming years. Tourism is the third largest net earner of foreign exchange for the country recording earnings of US $ 5731 million in 2005, a growth of 20.2 percent over 2004 (Tourism Overview in 2005-06). It is also one of the sectors which employ the largest number of manpower. The first ever Tourism Satellite Accounts for India compiled by NCAER for the year 2002-03 showed that tourism employed 38.8 million persons, directly and indirectly, which was 8.3 percent of the total employment in the country and who contributed 5.8 percent of the GDP (Tourism Satellite Accounts for India, NCAER). These figures are estimated to have increased to 41.85 million employed in 2003-04 with a GDP contribution of 5.9 percent. Various studies have also shown that tourism generates the highest employment per unit of investment for the skilled, semi-skilled and unskilled. The World Travel and Tourism council (WTTC) has identified India as one of the foremost growth centers in the world in the coming decade (WTTC Travel and Tourism Economy Research).

India’s share in international tourist arrivals has increased from 0.46 percent in 2004 to an estimated 0.55 percent in 2007. Foreign Tourist Arrivals (FTA) has increased from 3.46 million in 2004 to an estimated 5 million in 2007. The contribution of tourism to India’s foreign exchange earnings has grown from $6.17 billion (Rs. 279440 million) to an estimated $11.96 billion (Rs. 494130 million) in 2007. India’s share in world earnings from tourism has increased from 0.98 percent in 2004 to 1.21 percent in 2006. There is a significant increase in the domestic sector also, as number of domestic tourists has increased from 366.23 million in 2004 to an estimated 462 million in 2007. Foreign Tourist Arrivals (FTA) has increased from 3.46 million in 2004 to an estimated 5 million in 2007. The contribution of tourism to India’s foreign exchange earnings has grown from $6.17 billion (Rs. 279440 million) to an estimated $11.96 billion (Rs. 494130 million) in 2007. India’s share in world earnings from tourism has increased from 0.98 percent in 2004 to 1.21 percent in 2006. There is a significant increase in the domestic sector also, as number of domestic tourists has increased from 366.23 million in 2004 to an estimated 462 million in 2006. (Tourism Statistics for India: Annual report on the status of tourism in India, published by Ministry of Tourism, Government of India)

While the growth in tourism has been impressive, India’s share in total global tourism arrivals and earnings is quite insignificant. It is an accepted fact that India has tremendous potential for development of tourism. The diversity of India’s natural and cultural richness provides the basis of a wide range of tourist products and experiences, which embrace business, leisure, culture, adventure, spirituality, eco-tourism and many other pursuits. Apart from acknowledging the traditionally recognized advantages of developing tourism for the promotion of national integration, international understanding, earning of foreign exchange and vast employment generation, it can play a major role in furthering the socio-economic objectives of nation.

The Ministry of Tourism adopted a multi-pronged approach in order to achieve this growth. Providing a congenial atmosphere for tourism development, strengthening the tourism infrastructure and hospitality related services, integrated development of identified destinations and circuits, integrating elements of tourism, emphasizing on culture and clean civic life marketing of tourism products in a focused manner along with a branding exercise and positioning India as a high value destination in the new key markets and giving thrust on the human resource development activities have been the hallmarks of this strategy. The focus of product development in the states also underwent a change by enhanced outlays for ‘destination development up to an amount of Rs. 50 million and ‘circuit development’ up to an amount of Rs. 80 million (Tourism Policy). A new proposal was moved to allocate up to Rs. 500 million for individual destinations with high tourist footfalls in order to totally redesign the experience of the tourist through greater organization and provision of civic facilities.
The important initiatives taken by the Government to improve the flow of foreign tourists into the country and thereby increasing the country’s share in the world tourism included the following:-

- Beginning of cruise tourism by an international shipping firm.
- Direct approach to the consumers through electronic and print media through the ‘Incredible India’ Campaign called ‘Colours of India’ (Incredible India Campaign)
- Creation of World Class Collaterals.
- Centralized Electronic Media Campaign.
- An integrated campaign in South East Asia to promote Buddhist sites in India, etc.

Among the most favoured tourist destinations in India, Kerala for its scenic beauty, Agra for Taj Mahal, Khajuraho for its sculptures and temples, Goa for its beaches, Lucknow for its historical significance and some pilgrimages are the most important.

### 3 TOURISM IN UTTAR PRADESH

The state of Uttar Pradesh is situated in the northern part of India and is one of the most fascinating states of the Union of India. The state of Uttar Pradesh offers immense tourism delights and an endless array of attractions, to the visitors in the state by way of its rich and varied topography, vibrant culture and captivating festivities, monuments and ancient places of worship. Agra, Ayodhya, Sarnath, Varanasi, Lucknow, Mathura and Prayag combine religious and architectural marvels.

The state tourism department has reviewed the existing Tourism Policy and finalized the new Tourism Development Policy for the state of Uttar Pradesh (Tourism Policy for Uttar Pradesh) (www.up-tourism.com/policy/new_policy.htm; planningcommission.nic.in/plans/stateplan/upsdr/vol-2/Chap_b5.pdf). The objectives of the policy are:

- Providing economic benefits to the local population and enhancement of employment opportunities.
- Improving and diversifying the tourism product base, with focus on adventure, religious and monument based travel.
- Increasing the hotel capacity of the region.
- Increasing the visitation number.
- Enhancing the investment in the tourism industry.
- Increasing revenue per visitor through superior visitor profile, better facilities and value addition to the tourism product.

These aspirations as projected by the State Tourism Policy have the following strategies for development:

- Development of basic infrastructure, to be undertaken by the government bodies.
- Planning tourist circuits through a master plan.
- Enhancing and encouraging the participation of the private sector in efforts of the state government for providing necessary facilities to domestic and international tourists.
- Dovetailing development funds from different sources.
- Improving the product diversity to attract a range of tourists.
- Coordination between various government departments.
- Proper restoration of heritage properties and their publicity.
- Providing cheap, clean and satisfactory facilities to tourists in matters of transport, accommodation, food and recreation.
- Organizing cultural shows on occasion of different fairs, festivals and seminars with a view to attracting more and more tourists.
- Setting standards and quality benchmarks.
- Extensive and effective marketing.

In 2002, the foreign exchange earning for the state was Rs. 28390 million which increased to Rs. 50344 in the year 2005. (Malviya, 2008)

According to the AC Nielsen ORG-MARG “Collection of Tourism Statistics for the State of Uttar Pradesh” report (UP Tourism Statistics), the total number of tourists visiting the State of Uttar Pradesh for the period of April 2005–March 2006 was 17.8 million. Out of this, 4.5 million were domestic overnight visitors, 0.5 million foreign overnight visitors and 12.8 million were day tourists. Domestic overnight visitors spent 8.3 million bed nights and foreign overnight visitors spent 0.97 million bed nights in this period at various accommodation units in the state. Taking a holistic view, major heads of
expenditure for the visitors to the destination were accommodation services, food and beverage services as well as transport equipment rentals.

The glaring anomaly to be noted over here is that despite its rich cultural heritage and high potential for tourism, the growth of tourism in the state of Uttar Pradesh has not been very significant (UP Tourism Statistics). This anomaly and the various underlying factors responsible for it are the focus of our study.

4 MARKETING OF TOURISM

Tourism being a service industry presents inherent challenges with service marketing that affect how the tourism product is communicated to the consumer public. There is, according to Clow et al. (2006: 404), a ‘difficulty in communicating effectively the attributes of a service because of the unique characteristics of services, especially intangibility’. Indeed, the intangible nature of any service presents immense challenges to marketers in so much as communicating a product’s offering favourably to a potential market. Consider trying to communicate the thrill of a rollercoaster ride; the buzzing atmosphere in a busy city restaurant; the range of emotions felt while watching a theatre production. Travel-based products also have uniqueness in that they are not of a ‘tangible’ nature. Information constitutes the bulk of travel products and transactions.

Tourism and travel, as Zhou (2004) states, are about the experiences and memories that tourists will have for a lifetime, but there is an inherent difficulty in promoting something largely intangible in this way. ‘Tangibilising the intangible’ (Levitt 1981 cited in Kotler 2000) to engage your target audience is understandably complex. However, the buyer decision-making process for the service product compounds marketing challenges even further (Hoffman and Turley 2002). In the absence of being able to touch, see, or test a service, pre-purchasing decisions are much riskier than for goods (Palmer 2000). In many ways, it is venturing into an unknown and untested territory unless the consumer has purchased the product before or the product has received a positive word of mouth (File and Prince 1992).

Gilmore, Carson and Ascencao (2007) discuss sustainable tourism marketing in the context of a world heritage site and contend that a strategic marketing approach for the development of sustainable tourism is vital to the management of a world heritage site. This concept of tourism incorporates social, economic and environmental perspectives in a given region.

Hence, although the various State Tourism Departments may be deploying a number of marketing activities, but this study proposes developing an in-depth understanding of tourist preferences and delivering the desired tourism packages ensuring greater customer satisfaction.

5 GAINING INSIGHT INTO CUSTOMER PREFERENCES

Knowing where consumer preferences and their values reside, companies can develop the necessary marketing strategies to increase customer satisfaction, loyalty and retention, thus strengthening their competitive position. It is impossible today to remain cost competitive and offer every feature desired by customers (Pullman, Moore, and Wardell 2002). Therefore, marketing, engineering and operations need to work together to determine the profit-maximising bundle of product features.

The tourism industry has some specific characteristics that impact upon any tourism marketing management activity. Both public and private sector companies are involved in the planning, management and delivery of tourism services (Font and Ahjem 1999) and small companies often provide many fundamental services within tourism regions (Go, Milne and Whittles 1992; Dewhurst and Thomas 2003). So the industry is an amalgam of companies and organizations with different purposes and agendas and this has an influence on the overall tourism offering.

It is widely recognised that the tourism industry is fragmented and many authors have asserted the need for some form of co-operative arrangement between stakeholders (Butler 1991; D’Amore 1992; McKetcher 1993; Bramwell and Lane 1999; Boyd and Timothy 2001). Integrated, co-ordinated tourism is seen to be desirable, if not essential, for the implementation of sustainable tourism (WTO 1993).

Marketers are more likely to use conjoint analysis (CJA) to help design new product feature sets. Green and Krieger suggest the use of the CJA technique, for the detection of competitive actions and reactions in the case of introducing new products or services and extensions, through the analysis of consumers’ preferences and perceptions (Green and Krieger 1997).

CJA is a survey-based multivariate technique that measures consumer preferences about the attributes of a product or a service. The goal is to identify the most desirable combination of features to
be offered or included in the product or the service. The underlying theoretical premise of the CJA process is that consumers simplify the complexity of a purchasing decision, selecting for themselves a subset of features/attributes for which they give individual subject values, depending on the characteristic structure of those values.

In their working paper, Green and Rao (1969) discussed briefly the conjoint methodology. However, the first detailed consumer oriented paper appeared only in 1971 by Green and Rao. Later, Green and Srinivasan in 1978 developed it as a major set of techniques for buyer’s trade-offs among multi-attributed products and services.

Conjoint broadly refers to any decompositional method that estimates the structure of a consumer’s preferences, given his/her overall evaluations of a set of alternatives that are pre-specified in terms of levels of different attributes. Hence, it is best suited for understanding consumers’ reactions to and evaluations of predetermined attribute combinations that represent potential products or services. While maintaining a high degree of realism, it provides the researcher with insight into the composition of consumer preference. CJA is based on the simple premise that consumers evaluate the value of a product/service by combining the separate amounts of value provided by each attribute. Here, first a set of real or hypothetical products or services are constructed by combining selected levels of each attribute. These combinations are presented to respondents, who provide only their overall evaluations. Thus, the respondents are asked to perform a very realistic task—choosing among a set of products/services by rating/ranking. Because of construction of the hypothetical product/service in a specific manner, the influence of each attribute and the worth of each level as judged by respondent can be determined by the respondents’ overall ratings. Figure 1 gives a proposed conceptual model for this paper, illustrating the stepwise process followed to arrive at the most desirable tourism package (as per tourist preferences), so that it can be conveyed further to the state tourism department for implementation.

**Figure 1: Conceptual Model for the Research Study**

- Identifying the salient attributes & their levels for the Tourism Package
- Questionnaire with alternative options of attributes and levels (to be filled by tourists)
- Determination of the hierarchical framework of the salient attributes & their levels for a desirable Tourism Package (as per the tourists’ preferences)
- Adoption of the desired Tourism Package by the tourism department
- Communicating the preference structure & the desired Tourism Package attributes to the tourism department
- Determination of the most desirable combination of attribute-levels for the proposed Tourism Package
- Increased Customer (Tourist) Satisfaction, Loyalty & Retention, establishing a sustainable competitive differentiation for the state tourism department
6 DESIGNING A CONJOINT ANALYSIS EXPERIMENT

Figure 2: Conjoint Analysis Decision Process

- Specification of the objectives of Conjoint Analysis
- Identification of six salient attributes for Consumer Choice Process for the Tourism Package by Exploratory Identification Process
- Selecting levels for each attribute by interviewing tourism industry experts, tour operators and officials of the tourism department
- Selecting Conjoint Analysis Methodology:
  - Multi-Factor Evaluation Conjoint Analysis
  - Composition Rule- Additive
  - Full-Profile Approach
- Construction of Stimuli:
  - Subset of Stimuli-Fractional Factorial Design
  - Orthogonal Arrays (Orthoplans)
  - Orthogonality balanced
  - Estimation Set (18 stimuli) and Holdout Set (4 stimuli)
- Data Collection:
  - Selecting the Preference Measure- Metric (Rating using 9-point Likert scale)
  - Survey Instrument- Closed Ended Questionnaire
  - Quota Sampling
  - Form of Survey Administration- Personal Interviews
- Model Estimation Technique- Ordinary Least Squares (OLS) Regression Parametric Mathematic Algorithm using Dummy Variables
- Reliability and Validity:
  - Evaluating Model’s Goodness of Fit- Kendall’s Tau, Pearson’s R, Adj R square
  - Checking Predictive Accuracy and Internal Validity of the Conjoint Model –Kendall’s Tau for Holdout Cases
- Analyzing the Conjoint Model:
  - Constructing Preference Structure regarding Attributes and Attribute-levels for the Tourism Package
  - Suggesting the most desirable combination for various levels of the attributes under consideration for the tourism package.
- Discussing the Managerial Implications and Conclusions
Specifying Attributes and Levels: Although conjoint analysis places minimal demand on the respondents in terms of both the number and types of responses needed, a number of key decisions need to be made, in designing the experiment and analyzing the results (Figure 2). The first step of the conjoint decision process is specification of objectives of the conjoint analysis. The objective of the present study was determination of customer preferences for multi attribute hybrid services like tourism, so as to enable the state tourism board to deliver a desired combination of intrinsic attributes, helping it to create a sustainable competitive advantage, leading to greater customer satisfaction and positive word of mouth. Accordingly, in formulating the conjoint analysis problem, six categories of salient attributes were identified (Table 1). These attributes were identified by a detailed identification process consisting of discussion with tourism industry experts, secondary analysis of reports of the tourism department, content analysis of the pilot survey.

After identification of salient attributes, their appropriate levels were selected. The number of attribute levels determines the number of parameters that will be estimated and also influences the number of stimuli (attribute combination) to be evaluated by the respondents. So, following the in-depth interview with tourism industry experts, tour operators and officials of Uttar Pradesh Tourism Department, the levels estimating the attributes were selected in such a way that they covered the whole spectrum of product and services that are actually offered or are plausible. We have taken three different levels for each of the six attributes (Table 1). These attribute levels satisfied all the requirements for sufficiency, appeal and application, simultaneously it was kept in mind that when operationalizing either features or levels, they should be both communicable and actionable (can be implemented).

<table>
<thead>
<tr>
<th>Table 1: Investigated Attribute and their Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Information</td>
</tr>
<tr>
<td>1.1 Web &amp; Tele Media</td>
</tr>
<tr>
<td>1.2 Print Media</td>
</tr>
<tr>
<td>1.3 Tour Operator &amp; Tourism Office</td>
</tr>
<tr>
<td>2. Security</td>
</tr>
<tr>
<td>2.1 Luggage Safety</td>
</tr>
<tr>
<td>2.2 Medical Insurance</td>
</tr>
<tr>
<td>2.3 Family Safety</td>
</tr>
<tr>
<td>3. Choice</td>
</tr>
<tr>
<td>3.1 Natural Sites</td>
</tr>
<tr>
<td>3.2 Modern Architecture</td>
</tr>
<tr>
<td>3.3 Historical/Religious Monuments</td>
</tr>
<tr>
<td>4. Access</td>
</tr>
<tr>
<td>4.1 Airways</td>
</tr>
<tr>
<td>4.2 Roadways</td>
</tr>
<tr>
<td>4.3 Railways</td>
</tr>
<tr>
<td>5. Complaint Redressal</td>
</tr>
<tr>
<td>5.1 Ombudsman</td>
</tr>
<tr>
<td>5.2 Feedback Form</td>
</tr>
<tr>
<td>5.3 Govt Officials/Tourism Dept</td>
</tr>
<tr>
<td>6. Value for Money</td>
</tr>
<tr>
<td>6.1 Greater Quality of Sightseeing</td>
</tr>
<tr>
<td>6.2 Greater Comfort in Lodging</td>
</tr>
<tr>
<td>6.3 Comfortable Lodging and Extensive Sightseeing at Premium Price</td>
</tr>
</tbody>
</table>

Selecting Conjoint Analysis Methodology and Construction of Stimuli: After determining the basic attribute and their levels, we have decided to use multi-factor evaluation conjoint analysis methodology (Green and Srinivasan 1990). The reason behind this choice revolved around three basic characteristics of the proposed research: number of attributes, level of analysis and the permitted model form. Here we are dealing with six attributes, our level of analysis would be aggregate; and the model form to be used would be additive. Hence, full-profile approach, involving construction of complete profiles of the service/product offerings for all the attributes, was used here. We have three levels for
each of the six attributes. Hence there will be total $3^6 = 729$ product descriptions (stimuli). However, number of stimuli profiles were greatly reduced from 729 to 22 stimuli by means of fractional factorial design. This appeared to be a manageable number for the respondents and also exceeds the minimum number of stimuli (Total number of levels across all attribute – Number of attributes + 1 = 13) that must be evaluated by the respondent to ensure the reliability of the estimated parameters. A special class of fractional design, called orthogonal arrays was used. It assumes that all interactions present in stimuli are negligible. It allows for efficient estimation of all main effects of interest (Green, Krieger, and Wind 2001; Kahfeld, Tobias and Garratt 1994). Here, two sets of data were obtained. One, estimation set, consisting of 18 stimuli, was used for calculating part-worth functions for the attribute levels. The other, holdout set, consisting of four stimuli, was used to assess reliability and validity. The orthogonal arrays (orthoplan) were generated by SPSS-15.0 software. So, total 22 design cards resulted and therefore respondents (tourists) have to evaluate questionnaires consisting of 22 cards.

Deciding on the form of Input Data: For the survey purpose, we have used Metric Conjoint Analysis. Here, respondents were required to provide preference ratings for the tourism package described by 18 profiles in the estimation set and 4 profiles in the holdout set. The ratings were obtained using nine-point Likert scale (1= Least preferred, 9= Most preferred).

Survey Administration: The survey instrument was a closed ended questionnaire. The questionnaire had 22 stimuli profiles for preference rating. There were also questions related to demographic and behavioral information of the tourists. 1080 questionnaires were found complete in all respects. ‘Quota Sampling’ was deployed, so as to make the sample representative of the population of tourists visiting Uttar Pradesh. The quotas have been constructed on the basis of various demographic characteristics like age, gender, marital status, occupation, income, city of residence etc (Table 2). The information was collected from the tourists at different tourist places and hotels in the state of Uttar Pradesh. The questionnaires were administered personally to ensure the authenticity of information provided by the respondents. The questionnaires were pre-tested to check the orthogonality and other aspects and thereafter suitably modified.

Table 2: Demographic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 25</td>
<td>216</td>
<td>20.0</td>
</tr>
<tr>
<td>25-35</td>
<td>297</td>
<td>27.5</td>
</tr>
<tr>
<td>36-45</td>
<td>291</td>
<td>27.0</td>
</tr>
<tr>
<td>Above 45</td>
<td>276</td>
<td>25.5</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>627</td>
<td>58.0</td>
</tr>
<tr>
<td>Female</td>
<td>453</td>
<td>42.0</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>420</td>
<td>39.0</td>
</tr>
<tr>
<td>Married</td>
<td>660</td>
<td>61.0</td>
</tr>
<tr>
<td><strong>Annual Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 0.2 million</td>
<td>138</td>
<td>13.0</td>
</tr>
<tr>
<td>0.2 million -0.4 million</td>
<td>411</td>
<td>38.0</td>
</tr>
<tr>
<td>0.4 million -0.6 million</td>
<td>288</td>
<td>26.7</td>
</tr>
<tr>
<td>Above 0.6 million</td>
<td>243</td>
<td>21.3</td>
</tr>
<tr>
<td><strong>Profession</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>114</td>
<td>10.5</td>
</tr>
<tr>
<td>Services</td>
<td>390</td>
<td>36.1</td>
</tr>
<tr>
<td>Business</td>
<td>399</td>
<td>36.9</td>
</tr>
<tr>
<td>Housewife</td>
<td>177</td>
<td>16.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1080</td>
<td>100</td>
</tr>
</tbody>
</table>
Conjoint Analysis Procedure:  The basic conjoint analysis model may be represented as (Carroll and Green 1995; Haaijer, Kamakura, and Wedel 2000):

\[ U(X) = \sum_{i=1}^{m} \sum_{j=1}^{k_i} \alpha_{ij} x_{ij} \]

where,

- \( U(X) = \) Overall utility (importance) of an attribute
- \( \alpha_{ij} = \) part-worth utility of the \( j^{th} \) level of the \( i^{th} \) attribute
- \( i= 1, 2, \ldots, m \)
- \( j= 1, 2, \ldots, k_i \)
- \( x_{ij} = 1, \) if the \( j^{th} \) level of the \( i^{th} \) attribute is present
- \( = 0, \) otherwise.

The basic model was estimated with the ordinary least squares (OLS) regression parametric mathematic algorithm (Fox 1997) using dummy variable regression. The preference ratings were the predicted (dependent) variable and predictor variables consist of dummy variables for the attribute levels. This algorithm calculates partial values by homogenizing the rate fluctuations based on the normal distribution (Green and Krieger 1993). Partial values were then used to calculate the total mean perceptual values.

Reliability and Validity
Conjoint Analysis results should be assessed for accuracy, reliability and validity. The objective is to ascertain how consistently the model predicts the set of preference evaluations under different situations. Our results derived from the Conjoint Analysis are reliable and valid as:

1. While evaluating the goodness of fit of the estimated conjoint model, we found out that value of Kendall’s tau is 0.943, value of Pearson’s R is 0.977, and the value of adjusted R square is 0.843. Both these values are reasonably high and these results are significant at 5 percent level of significance (asymptotic significance =0.014) (Tables 3.1-3.3)

2. The value of Durbin-Watson statistic is 2.227 (Table 3.2), which lies in the range (1.25-2.75), showing that auto-correlation is not present.

3. The correlation table (Table 4) shows that there is small correlation among different predictors. So, multicollinearity is not present in the data.

4. We have also used four stimuli as validation or holdout stimuli to determine internal validity. Parameters from the estimated conjoint model (using 18 stimuli) were used to predict preferences for the holdout set of stimuli and then they were compared with actual responses by calculating correlation. Considering the table (Table 3.1), we have found out that value of Kendall’s tau is 0.712 for the four holdout cases. This value is significantly high (asymptotic significance = 0.009).So, we can say that our conjoint model has high predictive accuracy and internal validity.

Table 3.1: Model Summary (a)

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson’s R</td>
<td>.977</td>
<td>.014</td>
</tr>
<tr>
<td>Kendall’s tau</td>
<td>.943</td>
<td>.004</td>
</tr>
<tr>
<td>Kendall’s tau for Holdouts</td>
<td>.712</td>
<td>.009</td>
</tr>
</tbody>
</table>
**Table 3.2: Model Summary (b)**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.977(a)</td>
<td>.954</td>
<td>.843</td>
<td>.15993</td>
<td>2.227</td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant), d12, d10, d7, d6, d1, d9, d4, d8, d3, d2, d11, d5*

*b. Dependent Variable: MEANSCORE*

**Table 3.3: ANOVA (b)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2.645</td>
<td>12</td>
<td>.220</td>
<td>8.616</td>
<td>.014(a)</td>
</tr>
<tr>
<td>Residual</td>
<td>.128</td>
<td>5</td>
<td>.026</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.773</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant), d12, d10, d7, d6, d1, d9, d4, d8, d3, d2, d11, d5*

*b. Dependent Variable: MEANSCORE*

**Table 4: Correlations among Predictors**

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>MEANSCORE</th>
<th>d1</th>
<th>d2</th>
<th>d3</th>
<th>d4</th>
<th>d5</th>
<th>d6</th>
<th>d7</th>
<th>d8</th>
<th>d9</th>
<th>d10</th>
<th>d11</th>
<th>d12</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEANSCORE</td>
<td>1.000</td>
<td>.325</td>
<td>.181</td>
<td>.287</td>
<td>.212</td>
<td>.065</td>
<td>.038</td>
<td>.095</td>
<td>.149</td>
<td>.181</td>
<td></td>
<td>.023</td>
<td>.088</td>
</tr>
<tr>
<td>d1</td>
<td>.325</td>
<td>1.000</td>
<td>.500</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.161</td>
<td>.000</td>
<td>.161</td>
</tr>
<tr>
<td>d2</td>
<td>.181</td>
<td>.500</td>
<td>1.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.161</td>
<td>.250</td>
<td></td>
</tr>
<tr>
<td>d3</td>
<td>.287</td>
<td>.000</td>
<td>.000</td>
<td>1.000</td>
<td>.500</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.161</td>
<td></td>
<td>.500</td>
</tr>
<tr>
<td>d4</td>
<td>.212</td>
<td>.000</td>
<td>.000</td>
<td>.500</td>
<td>1.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.081</td>
</tr>
<tr>
<td>d5</td>
<td>.065</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>1.000</td>
<td>.500</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.645</td>
</tr>
<tr>
<td>d6</td>
<td>.308</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.500</td>
<td>1.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.322</td>
</tr>
<tr>
<td>d7</td>
<td>.095</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>1.000</td>
<td>.500</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.081</td>
</tr>
<tr>
<td>d8</td>
<td>.149</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.500</td>
<td>1.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.161</td>
</tr>
<tr>
<td>d9</td>
<td>.181</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>1.000</td>
<td>.500</td>
<td>.000</td>
<td>.081</td>
</tr>
<tr>
<td>d10</td>
<td>.023</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.500</td>
<td>1.000</td>
<td>.081</td>
<td>.081</td>
</tr>
<tr>
<td>d11</td>
<td>.088</td>
<td>.161</td>
<td>.161</td>
<td>.161</td>
<td>.081</td>
<td>.645</td>
<td>.322</td>
<td>.081</td>
<td>.161</td>
<td>.081</td>
<td>1.000</td>
<td>.564</td>
<td></td>
</tr>
<tr>
<td>d12</td>
<td>.322</td>
<td>.080</td>
<td>.250</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

**Correlations**

<table>
<thead>
<tr>
<th>MEANSCORE</th>
<th>d1</th>
<th>d2</th>
<th>d3</th>
<th>d4</th>
<th>d5</th>
<th>d6</th>
<th>d7</th>
<th>d8</th>
<th>d9</th>
<th>d10</th>
<th>d11</th>
<th>d12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>.094</td>
<td>.320</td>
<td>.124</td>
<td>.199</td>
<td>.399</td>
<td>.107</td>
<td>.354</td>
<td>.277</td>
<td>.236</td>
<td>.464</td>
<td>.365</td>
<td>.096</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.000</td>
<td>.017</td>
<td>.500</td>
<td>.050</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.124</td>
<td>.500</td>
<td>.050</td>
<td>.017</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.159</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.017</td>
<td>.001</td>
<td>.017</td>
<td>.017</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.001</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.094</td>
<td>.320</td>
<td>.124</td>
<td>.199</td>
<td>.399</td>
<td>.107</td>
<td>.354</td>
<td>.277</td>
<td>.236</td>
<td>.464</td>
<td>.365</td>
<td>.096</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.000</td>
<td>.017</td>
<td>.500</td>
<td>.050</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.500</td>
<td>.001</td>
</tr>
</tbody>
</table>

7 FINDINGS AND MANAGERIAL IMPLICATIONS

The most important aspect of the relationship between service providers and customers is that the service providers lack an in depth insight into customer preferences. There is often a disconnect between what customers want and what service providers offer. This is particularly true in case of services like tourism because of the intangibility element associated with it. The present study was undertaken to determine hierarchical framework of salient attributes in a desirable tourism-package (as per tourists’ preferences) and thereafter to identify the most desirable combination of attributes that can be offered to tourists visiting the state of Uttar Pradesh. The results as presented in Figure 3 represent the mean preference structure or the grading provided by the tourists visiting state of Uttar Pradesh. These preference scores are based on the data collected from 1080 tourists through a structured questionnaire.

Figure 3: Mean Preference Structure of Tourism Package

Here six salient attributes and their levels were identified for consumer choice process in the tourism package by exploratory identification process. Full Profile Conjoint Analysis was used for construction of preference structure. Analyzing the preference structure or the relative importance accorded (by tourists) to the six salient attributes, the tourists accorded the maximum utility/importance to the attribute ‘value for money’ (with importance as 34.03 percent). Hence the State Tourism Board needs to comprehend ‘value’ in customer terms and deliver the same. Taking into account the part worth functions, the tourists have primarily defined Value in terms of comfortable lodging and
Sightseeing and comfortable lodging as attributes rank very high as per tourist preferences.

The second most important attribute in the desirable tourism-package is ‘security expected during the visit’ (importance 25.52 percent). Ensuring safety and security of all tourists is function of paramount importance for the state tourism board. Within the purview of this attribute the tourists accorded the highest priority to family safety. In recent times, with a sudden spurt in terrorist related activities and attacks on tourists in particular, there is a sense of insecurity among tourists. Appropriate security should be steadfastly ensured by the state law enforcement authorities. In absence of requisite security measures, any substantial progress in development of tourism of a destination may not be possible.

Thereafter at the third place in the worth hierarchy is the attribute of ‘information’ with a utility percentage of 19.28 percent. The most preferred form of accessing the relevant and required information is ‘print-media’ and then ‘web-media’. For informed decision making, prospective tourists seek host of information (related to accessibility, tourist packages on offer, lodging, sightseeing, etc.). And print media provides detailed and permanent (in the consumer’s perception) information about the alternative tourism packages on offer. The web media is probably preferred because of its convenience and easy accessibility. This information can be made available via brochures, newspapers, travel magazines and informative websites.

Then at the fourth place of the hierarchical framework, is the attribute ‘choice offered’ (worth 9.99 percent) to tourists (in terms of sightseeing options). Here the tourists accorded the highest priority to historical and religious monuments. The state of Uttar Pradesh possesses as its major attractions, some important historical and religious monuments. Hence there should be coordinated efforts by the state tourism board, archaeological department and state government towards proper maintenance and upkeep of these monuments.

Next in the hierarchical preference structure is the attribute representing complaints handling and redressal mechanism for tourism and related services (worth 8.12 percent). Here tourists stressed upon a dedicated ‘ombudsman’, who would be empowered to suitably address tourist grievances.

The last attribute was the ‘mode of access’ but the tourists did not accord much important to it (3.05 percent). The decision pertaining to the mode of travel is generally governed by monetary constraints, time constraints and available options.

**Binary Logistic Models**

As a post hoc implementation to the application of conjoint analysis for developing a desirable tourism package, binary logistic regression model was constructed to examine the effect of demographic and socioeconomic factors upon the utilities assigned to different levels of the attributes (constituent components of the tourism package). Consumers being heterogeneous, with differing perceptions, may attach different degree of importance to various attribute-levels and this in turn would affect the nature and size of the utilities. These considerations may be incorporated while designing customized tourism service packages for different groups of customers.

In binary logistic regression models, levels of the salient attributes are taken as predicted (dependent) variables. To convert the utilities values into dichotomous variables, we have taken the value ‘one’ if utility of the attribute level is above the mean and ‘zero’ otherwise. So, the total number of binary logistic regression models to be estimated was 18. The predictor variables for each of the regression model were age, gender, marital status, family income and profession. These 18 models were estimated and the results are presented in the following table (Table 5).
Shalini N. Tripathi and Masood H. Siddiqui

Table 5: Logistic Regression Model Results for Attribute Levels

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Constant</th>
<th>Age</th>
<th>Gender</th>
<th>Marital Status</th>
<th>Annual Income</th>
<th>Profession</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web &amp; Tele Media</td>
<td>-.812</td>
<td>.116</td>
<td>-.088</td>
<td>-.098</td>
<td>.083</td>
<td>.078</td>
</tr>
<tr>
<td></td>
<td>(-1.376)</td>
<td>(2.732)*</td>
<td>(-.473)</td>
<td>(-.632)</td>
<td>(1.679)</td>
<td>(1.634)</td>
</tr>
<tr>
<td>Print Media</td>
<td>.989</td>
<td>.099</td>
<td>-.798</td>
<td>-.031</td>
<td>-.129</td>
<td>.027</td>
</tr>
<tr>
<td></td>
<td>(1.886)</td>
<td>(.132)</td>
<td>(.043)</td>
<td>(-.911)</td>
<td>(-.911)</td>
<td>(.392)</td>
</tr>
<tr>
<td>Tour Operator &amp; Tourism Office</td>
<td>.143</td>
<td>.232</td>
<td>-.436</td>
<td>-.009</td>
<td>-.21 (1.112)</td>
<td>-.143</td>
</tr>
<tr>
<td></td>
<td>(.332)</td>
<td>(.088)</td>
<td>(-.684)</td>
<td>(.241)</td>
<td>(-1.112)</td>
<td>(-1.045)</td>
</tr>
<tr>
<td>Luggage Safety</td>
<td>-.430</td>
<td>.094</td>
<td>-.017</td>
<td>.435</td>
<td>-.043</td>
<td>.084</td>
</tr>
<tr>
<td></td>
<td>(-.989)</td>
<td>(1.020)</td>
<td>(-.563)</td>
<td>(-.678)</td>
<td>(-.075)</td>
<td>(.273)</td>
</tr>
<tr>
<td>Medical Insurance</td>
<td>-.383</td>
<td>.127</td>
<td>.005</td>
<td>-.112</td>
<td>.065</td>
<td>.106</td>
</tr>
<tr>
<td></td>
<td>(.996)</td>
<td>(.1746)</td>
<td>(.032)</td>
<td>(-.958)</td>
<td>(.697)</td>
<td>(.546)</td>
</tr>
<tr>
<td>Family Safety</td>
<td>-.574</td>
<td>.125</td>
<td>-.057</td>
<td>-.2261*</td>
<td>.017</td>
<td>.072</td>
</tr>
<tr>
<td></td>
<td>(-.838)</td>
<td>(1.563)</td>
<td>(-.2261)</td>
<td>(-1.877)</td>
<td>(.447)</td>
<td>(.118)</td>
</tr>
<tr>
<td>Natural Sites</td>
<td>.507</td>
<td>.089</td>
<td>-.008</td>
<td>-.043</td>
<td>.003</td>
<td>-.149</td>
</tr>
<tr>
<td></td>
<td>(.274)</td>
<td>(.1569)</td>
<td>(-.937)</td>
<td>(-.978)</td>
<td>(.583)</td>
<td>(-.781)</td>
</tr>
<tr>
<td>Modern Architecture</td>
<td>-.649</td>
<td>-.036</td>
<td>.087</td>
<td>.038</td>
<td>-.073</td>
<td>.037</td>
</tr>
<tr>
<td></td>
<td>(-1.029)</td>
<td>(-2.469)*</td>
<td>(.390)</td>
<td>(.769)</td>
<td>(.0870)</td>
<td>(1.161)</td>
</tr>
<tr>
<td>Historical/Religious Monuments</td>
<td>.467</td>
<td>.049</td>
<td>-.012</td>
<td>.005</td>
<td>-.083</td>
<td>-.003</td>
</tr>
<tr>
<td></td>
<td>(1.243)</td>
<td>(1.889)</td>
<td>(.054)</td>
<td>(.054)</td>
<td>(-.278)</td>
<td>(-.761)</td>
</tr>
<tr>
<td>Airways</td>
<td>.503</td>
<td>.037</td>
<td>-.051</td>
<td>-.014</td>
<td>.622</td>
<td>-.032</td>
</tr>
<tr>
<td></td>
<td>(.799)</td>
<td>(.064)</td>
<td>(.286)</td>
<td>(.399)</td>
<td>(1.274)</td>
<td>(-.238)</td>
</tr>
<tr>
<td>Roadways</td>
<td>-.159</td>
<td>.318</td>
<td>-.107</td>
<td>.067</td>
<td>-.058</td>
<td>-.054</td>
</tr>
<tr>
<td></td>
<td>(-.756)</td>
<td>(.137)</td>
<td>(-.700)</td>
<td>(.092)</td>
<td>(-.106)</td>
<td>(-.687)</td>
</tr>
<tr>
<td>Railways</td>
<td>-.892</td>
<td>.144</td>
<td>-.069</td>
<td>.002</td>
<td>-.062</td>
<td>-.032</td>
</tr>
<tr>
<td></td>
<td>(-.994)</td>
<td>(.039)</td>
<td>(.671)</td>
<td>(.077)</td>
<td>(-1.16)</td>
<td>(.041)</td>
</tr>
<tr>
<td>Ombudsman</td>
<td>.133</td>
<td>.106</td>
<td>.022</td>
<td>-.332</td>
<td>-.159</td>
<td>-.031</td>
</tr>
<tr>
<td></td>
<td>(.548)</td>
<td>(9.650)</td>
<td>(.049)</td>
<td>(-.965)</td>
<td>(-2.254)</td>
<td>(-1.43)</td>
</tr>
<tr>
<td>Feedback Form</td>
<td>.386</td>
<td>-.038</td>
<td>.018 (756)</td>
<td>-.015</td>
<td>-.139</td>
<td>-.064</td>
</tr>
<tr>
<td></td>
<td>(1.003)</td>
<td>(-.511)</td>
<td>(.834)</td>
<td>(-.376)</td>
<td>(-.186)</td>
<td></td>
</tr>
<tr>
<td>Govt. Officials/Tourism Dept</td>
<td>-.302</td>
<td>.069</td>
<td>.059</td>
<td>-.068</td>
<td>-.029</td>
<td>.008</td>
</tr>
<tr>
<td></td>
<td>(-.756)</td>
<td>(.365)</td>
<td>(.829)</td>
<td>(-.949)</td>
<td>(-.886)</td>
<td>(.030)</td>
</tr>
<tr>
<td>Greater Quality of Sightseeing</td>
<td>-.247</td>
<td>-.522</td>
<td>.033</td>
<td>-.066</td>
<td>-.069</td>
<td>-.088</td>
</tr>
<tr>
<td></td>
<td>(-.635)</td>
<td>(-.604)</td>
<td>(.749)</td>
<td>(-.956)</td>
<td>(-.945)</td>
<td>(1.044)</td>
</tr>
<tr>
<td>Greater Comfort in Lodging</td>
<td>-.139</td>
<td>-.493</td>
<td>.258</td>
<td>.017</td>
<td>-.033</td>
<td>.138</td>
</tr>
<tr>
<td></td>
<td>(-.447)</td>
<td>(-.165)</td>
<td>(.132)</td>
<td>(.867)</td>
<td>(-1.123)</td>
<td>(.744)</td>
</tr>
<tr>
<td>Comfortable Lodging and</td>
<td>-.139</td>
<td>.382</td>
<td>-.149</td>
<td>.112</td>
<td>.129</td>
<td>-.261</td>
</tr>
<tr>
<td>Extensive Sightseeing at Premium Price</td>
<td>(.292)</td>
<td>(2.389)*</td>
<td>(-.867)</td>
<td>(1.236)</td>
<td>(2.567)*</td>
<td>(-.843)</td>
</tr>
</tbody>
</table>

Note: 1. Figures in parentheses are t-ratios.

2. * Significance at 5% level of significance.

According to the above table (Table 5), most of the explanatory variables (demographic and socioeconomic characteristics) do not show significant effects on the dependent variable (utilities) barring some variables which have a significant impact and may contribute to higher perception value for certain attribute-levels. For web-media, age show significant effect upon the importance attached to web-media. The younger generation being more technically savvy, may enjoy greater comfort level using web and tele-media for accessing information in comparison to traditional methods like print media and tourism office. However the older generation may perceive information from these traditional sources as being more authentic hence greater reliance on these sources, so the utility values may vary accordingly. Gender as an explanatory factor shows significant effect on dependent variable family-safety, probably contributing to the high utility value. Females tend to assign higher importance to the family safety vis-à-vis any other factor during a holiday. Predictor age contributes to higher utility value being assigned to the sightseeing option of modern architecture, an option probably finding favor with the younger age group, whereas the timeless treasures i.e. the historical and religious monuments are equally preferred by all age groups. Family income and age as predictors have a significant effect in the model analyzing comfortable lodging and extensive sightseeing at premium prices, and are mainly responsible for contributing high utility value to this service option. The rationale being that people in the older age group (40 years and above), with higher disposable income, would prefer a tourism package incorporating extensive and exclusive sightseeing, greater comfort in lodging, with a willingness to pay a price premium for a package customized to suit their preferences.
Age appears to be most important explanatory variable or predictor, as it was found to be significant in three binary logistic regression models.

8 CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The paper attempts to provide Uttar Pradesh Tourism department, with information about specific attributes to be incorporated in the tourism services provided by them, as per tourists’ preferences.

The study focuses on the relative importance accorded to the six salient attributes: Value for money, Information, Security, Choices offered, Complaint redressal and Modes of access.

The CJA results reveal that the tourists accord the greatest importance to the ‘value for money’ attribute, followed by ‘security’ and thereafter ‘information’. They however place relatively less value on ‘variety of sightseeing options’, ‘complaint redressal’ and ‘modes of access’.

The Binary Logistic Regression analysis results however reveal that some socio-economic variables of the tourists played a significant role in shaping the importance of the underlying utilities, indicating that the utilities would probably be sensitive to the structure of these variables.

The study has important management and marketing implications. From the management perspective, the study can empower the state tourism departments with information (about tourist preferences), so that they can add value to their relationship with the tourists, by incorporating the preferred combination of features. The decision making authorities in the tourism department can also assess the information provided by the study, to appropriately bridge the gaps between their perception of value (of services provided) and the tourists’ perception of value (desired services), by developing corrective action plans. Such corrective actions will ensure greater customer satisfaction as well as a differentiable competitive advantage, vis-à-vis the other tourist destinations.

Although this study focuses on tourism department of the state of Uttar Pradesh, however the premise of this paper can be successfully implemented by the tourism authorities of other national environments. Worldwide the most important factor governing the relationship between service providers and customers is the service providers’ lack of insight into customer preferences. This leads to a lacuna between what customers want and what service providers’ offer, especially in case of services like tourism. In order to bridge this lacuna tourism authorities (of any country) can determine the preference structure of the tourists (visiting the tourist destinations of that country), and offer customized tourism packages. The attributes and their levels used for conjoint analysis could be adapted in accordance with the socio-cultural environment of a country.

There are, however, certain limitations in the present study, as well as some avenues for further research. Specific product combinations have not been analysed in this study that could possibly end in modified or niche marketing strategies. Further research could examine the usefulness of promoting specific product characteristics in everyday practice, such as promoting an ideal tourism package. It is difficult to develop combinations with more than three levels of product characteristics as well as use of a variety of examined factor variables. This weakness is based on the difficulty that individuals had in replying to the standardized questionnaires, thus resulting in choosing variable categories very carefully and after in-depth interviews. In the present research, the limitation was six factor categories each with three analysis levels. Thus, the conclusions of CJA focus on the levels of product characteristics and on the factor variables that were used in this research.

Taking into cognizance the above limitations, the basic premise of the study was to enable the state tourism departments to not only create high absolute value, but also to develop a competitive advantage which will be perceived as a customer advantage by customers. This will in turn ensure delivery of high customer value and satisfaction.

Key Policy Implications

This study aims to provide Uttar Pradesh Tourism Department, valuable information about tourist preferences, so that they can design customized tourism packages; consequentially furthering the socio-economic objectives of the state like enhancement of revenue from tourism.

As far as the policy implications related to implementing such a study are concerned, the Ministry of Tourism, Govt. of India has a scheme/plan titled ‘Market Research Study and Preparation of Perspective Plans’. The objectives of this scheme are preparation of master plans, conduct surveys & studies and accept research studies which are useful for tourism planning. It receives proposals from various state governments/ Union Territory administrations and issue guidelines stemming from various market research studies. (Tourism Policy and Schemes implemented by M/o Tourism).

Further Department of Tourism and U.P. State Tourism Development Corporation Ltd. also accept research proposals and consider relevant research studies for planning and implementation purposes.
After due deliberations, useful research proposals are accepted for implementation, for furthering development of tourism in the state. (Tourism Policy for Uttar Pradesh)

REFERENCES


Incredible India Campaign. http://www.incredibleindiatourism.com/
Tourism Policy and Schemes implemented by M/o Tourism, http://www.tourism.gov.in/policy%5CPolicySchemes.htm
Tourism Satellite Accounts for India, NCAER. http://www.tourism.gov.in/survey/TSAI.pdf
The effects of message strategy and execution framework on teenage boy’s processing of print advertisements in India

Tuhin Chattopadhyay
Faculty, Department of Marketing, IILM, Greater Noida
K–2089, 2nd floor, Chittaranjan Park, New Delhi – 110 019, India
Tel: +91-9250674214
Email: profchattopadhyay@rediffmail.com

Abstract

The purpose of this paper is to explore the most effective print advertising strategy in terms of message strategy and execution framework for teenage boys in India. Teenage boys (n = 400) watched twenty advertisements in which message strategy and execution framework were manipulated in a 2x10 completely crossed factorial design and were asked to rate their attention, comprehension, retention, attitudes and purchase motivation about these advertisements. Results suggest that affective message strategy along with personality symbol as execution framework is most effective for teenage boys. Findings are then discussed.

Keywords: print advertising, information processing, message strategy, execution framework, teenage boys
1 INTRODUCTION

The study of consumer information processing has become an important development in communication research. As creative complexity and artistic expression continue to be the norm in contemporary print advertising, a further understanding of how consumers process advertisements can only enhance future advertising efforts (Lapidus, 1991). Since the marketplace gets more competitive with hundreds, if not thousands, of advertisers competing for the consumers’ attention marketers must develop a better understanding of the consumer if they are to reach their desired target audience efficiently and effectively. It is a fact universally acknowledged that matching advertisement format to a consumer's mode of information processing enhances advertising effectiveness. Most print advertisements utilize texts and pictures to communicate with consumers. Research has begun to examine how the processing of these texts and pictures are influenced by its structure (e.g., whether it is in narrative format or presented as a list of attributes; Adaval & Wyer, 2004; Escalas, 1998). When advertising format is compatible with processing mode, the ability to process information gets enhanced, making the message more persuasive and advertisement evaluations, brand evaluations, and purchase intentions more favourable than when advertising format and processing mode are incompatible. It is a matter of study for the market researchers to find out the most effective advertising strategy for the segmented target markets. In considering the many and varied effects of advertising, a very central issue is how the information in an advertisement is processed, that is, how people understand and remember what an advertisement said.

‘The consumer is constantly being bombarded with information which is potentially relevant for making choices. The consumer’s reaction to that information, how that information is interpreted, and how it is combined or integrated with other information may have crucial impacts on choice. Hence, decisions on what information to provide to consumers, how much to provide, and how to provide require knowledge of how consumers process, interpret and integrate that information in making choices (Bettman, 1979).’

The way in which information is received, processed and recalled by the human mind is necessary to know if advertising is to be efficiently devised and created to elicit the highest possible effect. Information processing models generally gain their power when they are applied to make predictions on what types of information will and will not be recalled.

In an attempt to understand consumer choice in advertising, the approach that has been taken is to focus on the information used by consumers and how that information is processed. “A clearer understanding of the stages of the processes involved in responding to advertisements would certainly have practical as well as theoretical importance (Harris, 1983).”

The basic approach to study the choice in advertising is to view the consumer as a processor of information; that is the consumer is characterized as interacting with his or her choice environment, seeking and taking in information from various sources, processing this information, and then making a selection among different alternatives. The purpose is to provide an integrated view of choice from an information processing perspective.

Since the right message strategy and the right execution framework will be different for different target audiences, the present research has taken into consideration the teenage boys and tries to explore the right combination of message strategy and execution framework which will be the most effective tool for each of them. The present study on information processing has been carried out by treating print advertisements as information sources and male teenagers as information processors.

Objective

This study is designed to extend knowledge of cognitive processing of advertising messages by teenage boys in India. The objective of the research is to give the advertising industry a definite guideline while targeting the teenage boys. The research tries to bring forward the most effective combination of message strategy and execution framework for the teenage boys. The specific objectives of the research are as follows:

1. To find whether advertisement elements like message strategy and execution framework influence processing and understanding of advertising messages by teenage boys.
2. To explore the most appropriate strategies for creating print advertisements in terms of message strategy and execution framework while targeting towards the teenage boys of India.
2 LITERATURE REVIEW AND THEORETICAL FRAMEWORK

The understanding of how the mind processes and stores information is invaluable to advertisers as they plan for message strategy and execution framework in advertisements. If there is little to no understanding of the information processing skills of the consumers with whom one is working, it would be almost impossible to design advertisements that contributes to high levels of effectiveness. However, attempting to understand the myriad theories of information processing and cognitive development can be overwhelming and contradictory. There are means of structuring advertisements, though that can incorporate the best of all of these ideas, and in order to help consumers process the information from the advertisements in the right way, advertisers must draw from all of these theories.

Advertising message strategy is a well-researched topic in both the academic as well as practitioners community. Ray (1982) classifies commercials by “format,” e.g. warmth, testimony, refutation, repetition and fear. Rothschild (1987) refers to classes of creative appeal (rational versus emotional) and execution style (slice of life, product comparison, problem/solution, music, sex and humour). Belch and Belch (1990) used the term “Appeals” (rational, emotional and combinations) and “Execution Styles” (factual message, scientific/ technical evidence, demonstration, comparison, testimonial, slice of life, animation, personality symbol, fantasy, dramatization, humour and combinations).

The quantity and quality of information retained by an individual depends largely on the perceptual and cognitive operations employed at the time of encoding (Benton, Glover & Bruning, 1983). Cognitive psychologists hold that the consumers seek and use information to assist them in decision processes in order to maximise utility, reduce levels of risk, or solve problems. McGuire suggested that the impact of persuasive communications could be understood in terms of three information-processing phases: a) attention to the message, b) comprehension of its contents, and c) acceptance of its conclusions. McGuire, in 1969, further extended the model into six steps which are as follows:

1. Presentation: at first the message recipient must be presented with the persuasive message
2. Attention: the recipient must pay attention to the message in order to produce attitude change
3. Comprehension: the overall position that the message advocates and the arguments provided with to support the position must be comprehended
4. Yielding: the recipient must yield to, or agree with, the message content that has been comprehended if any attitude change is to be detectable
5. Retention: the recipient must retain the advertisement, or store it in memory, if this is to be persisted over a period of time.
6. Behaviour: the recipient must behave on the basis of their changed mind

McGuire’s six-steps (1969) give a good overview of the information processing process of the consumers while watching the advertisements. The steps discussed in McGuire’s information processing model, have also been dealt with by other researchers. Attention, defined as the general distribution of mental activity to the tasks being performed by the individuals (Moates and Schumacher 1980), reflects both which receives mental activity (direction) and the duration of the focus. As a limited cognitive resource (Broadbent 1977; Mitchell 1983), attention can be allocated to the various degrees to the advertisement. The selective aspect of attention is under conscious control and is directed towards the need-relevant stimuli. It is also recognized, however, that the stimuli may contain properties that automatically elicit attention (Berlyne 1960). Comprehension is a function of the message characteristics, the consumer’s opportunity and ability to process the information and the consumer’s motivation (or level of involvement). Within the concepts of information processing, and in parallel with these decision-making models (and the role information plays within them), has been the study of attitude and attitudinal change. The study of attitudinal formation and change is central to promotional marketing. Particularly central to information processing and attitude formation has been the premise of ‘rational choice’, which suggests that cognitive shifts will lead to new attitudes. Among many similar treatments, Ray’s (1973) variation on these deals with the hierarchical components may have in a linear process of attitudinal change. In his version of the theory, high involvement requires initial cognitive change, followed by conative change and then behaviour (i.e. the Learn-Feel-Do approach).

Meanwhile, the literature concerning the importance of information processing in marketing has not remained static. Extant research proposed that emotions cause attention to shift towards the stimulus that causes an emotion, as a result of the limbic system’s autonomic reaction (Damasio, 1994). Further research suggests that the emotional and rational are not two conflicting things in the brain, but work together towards the survival of the organism: emotions direct attention, so that the organism recognizes things it should avoid or approach (Erik du Plessis, 2005).
There are a huge number of variables involved in information processing, ranging from cultural variables to specific experiences, from memory recall to personality traits, from motivations and attitudes to mental capacity and situation-specific criteria and so on. It is therefore a complex task to model or codify the way the mind processes information when it constructs understanding and a sense of meaning. The complexities of elements within this subject, however, also encourage recognition of the value of inductive modes of investigation when it comes to interpreting the deviations and departures in the character of processing mechanisms and the way these may be interpreted and modelled. While most of the researchers try to find out how consumers process information by developing models and theories, little attempt was made to find out the cognitive style of different segments differentiated by sex and age.

**Hypotheses**

The initial encoding of the message by the advertiser is an area of research which might possibly receive the least amount of attention. Researchers have concentrated on information processing and associated behavioural response but have seemingly bypassed the structure (message strategy and execution framework) of the advertising stimulus. The hypotheses have been framed to bridge the existing gap in the previous research. In order to fulfill the proposed object, an experimental design was prepared, with two between-subject factors to be controlled: message strategy and execution framework. The message strategy was divided into two treatments: cognitive or rational advertisements and affective or emotional advertisements. The execution framework was divided into ten levels: animation, slice of life, testimonial, demonstration, fantasy, informative, scientific/technical evidence, comparison, personality symbol and dramatization. The independent variables and their levels have been selected keeping in mind the seminal works of the academicians (Belch and Belch, 1990) on advertising format. As for the dependent variables, the five dependent variables have been identified in line with McGuire’s Information Processing Theory. They are ability to gain attention, message comprehension, retention of the advertisement, attitude towards the advertisement and purchase motivation of the consumers by watching the advertisement. The hypotheses are as follows:

**H1:** The vectors of means (centroid) of teenage boy’s attention, message comprehension, attitude, retention and purchase motivation remains the same across different levels of message strategies and execution framework.

**H2:** The mean level of teenage boy’s attention towards advertisements remains the same for all combinations of message strategies and execution framework.

**H3:** The mean level of teenage boy’s comprehension of the advertisements remains the same for all combinations of message strategies and execution framework.

**H4:** The mean level of teenage boy’s retention of the advertisements remains the same for all combinations of message strategies and execution framework.

**H5:** The mean level of teenage boy’s attitude towards advertisements remains the same for all combinations of message strategies and execution framework.

**H6:** The mean level of teenage boy’s purchase motivation remains the same for all combinations of message strategies and execution framework.

### 3 METHODOLOGICAL FRAMEWORK

**Advertisement treatment selection**

The 2x10 experimental design described requires the control of twenty different experimental treatments. Therefore, twenty different print advertisements need to be selected to show the members
of the sample. The researcher took almost all print media advertisements (300) targeted towards teenage boys published in India from 2005 to 2007 by the fifteen leading advertising agencies of India and for all practical purposes the collection has considered to be exhaustive. A panel of eight judges viewed over three hundred advertisements to select twenty advertisements, a number consistent with the 20 stimulus advertisements used by Childers and Houston (1984). The twenty advertisements for teenage boys represented all permutations of two types of message strategy (Cognitive Message Strategy and Affective Message Strategy) and ten types of execution framework (Animation, Slice of life, Testimonial, Demonstration, Fantasy, Informative, Scientific/ technical evidence, Comparison, Personality symbol, Dramatization). Cognitive was defined as “appealing to the ‘rationality’ of the receiver” and Affective was defined as creating a mood and appealing to the emotions. The advertisements were "strong" representations of both types of appeals. All advertisements were familiar products or brands that might conceivably be purchased by the subjects. The entire selection is done through Quick-sort procedure to maintain objectivity in the research.

Subjects and design

A total of 400 teenage boys in the age group of thirteen to nineteen years were chosen through area sampling from all over India. The sample was spread out among four different geographic areas in India, in order to ensure maximum representation: southern area (city of Kozhikode), western area (city of Ahmedabad), eastern area (city of Kolkata) and northern area (city of Delhi). The sample was equally divided among the four cities (100 individuals in each).

The 400 teenage boys are shown the 20 advertisements with different combination of the two types of message strategy and ten types of execution framework. Questionnaires were also provided to them while watching the advertisements. The five dependent variables of the research namely attention, comprehension, attitude, retention and purchase motivation are measured on a five-point semantic differential scale for each of the twenty advertisements which represent the twenty combinations of message strategy and execution framework. A random ordering of twenty advertisements were assigned to the 400 teenage boys in a 2 × 10 factorial design of message strategy (Cognitive Message Strategy and Affective Message Strategy) and execution framework (Animation, Slice of life, Testimonial, Demonstration, Fantasy, Informative, Scientific/ technical evidence, Comparison, Personality symbol, Dramatization).

4 RESULTS

Reliability for scales with multiple items ranged from .84 to .93. The name of the advertised brand did not affect any of the measures (all \( p \)'s > .27), so analyses were performed on aggregated data. Familiarity and involvement with the category and the perceived importance of product attributes did not differ across advertisements (all \( p \)'s > .10).

To investigate the interaction between message strategy and execution framework on the teenage boy’s attention, message comprehension, attitude, retention and purchase motivation an overall 2 (message strategy) × 10 (execution framework), Multivariate Analysis of Variance (MANOVA) was performed to control the overall alpha level at the desired level (.05). There was a significant interaction between message strategy and execution framework (Wilks' lambda = .92, \( F(45, 3.568E4) = 15.39, p < .01 \)). Thus the result refutes hypothesis 1 and provides sufficient statistical evidence that the differences in teenage boys’ attention, comprehension, retention, attitude and purchase motivation between cognitive message strategies and affective message strategies depend on the execution frameworks, or, the differences among execution frameworks vary with message strategies with respect to teenage boy’s attention, comprehension, retention, attitude and purchase motivation. A complete summary of MANOVA results can be found in Table 1.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Value</th>
<th>F</th>
<th>Hypothesis df</th>
<th>Error df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessStrat * ExeFrame</td>
<td>Pillai's Trace</td>
<td>.085</td>
<td>15.246</td>
<td>45.000</td>
<td>3.990E4</td>
</tr>
<tr>
<td></td>
<td>Wilks' Lambda</td>
<td>.918</td>
<td>15.386</td>
<td>45.000</td>
<td>3.568E4</td>
</tr>
<tr>
<td></td>
<td>Hotelling's Trace</td>
<td>.087</td>
<td>15.498</td>
<td>45.000</td>
<td>3.987E4</td>
</tr>
<tr>
<td></td>
<td>Roy's Largest Root</td>
<td>.050</td>
<td>44.076</td>
<td>9.000</td>
<td>7.980E3</td>
</tr>
</tbody>
</table>

Analysis of variance (ANOVA) was used to analyze the second hypothesis considering attention of the teenage boys towards the advertisement as the dependent measure. The interaction effect
between message strategy and execution framework ($F(9, 7980) = 8.15 \ p < .01$), are found to be significant. A summary of the interaction effect of ANOVA results can be found in Table 2.

**Table 2: Dependent Variable: Attention of the teenage boys towards the advertisement**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessStrat * ExeFrame</td>
<td>73.045</td>
<td>9</td>
<td>8.116</td>
<td>8.149</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>7947.982</td>
<td>7980</td>
<td>.996</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A significant interaction between message strategy and execution framework has been illustrated in Figure 1 which shows that how the teenage boys’ attention gets increased from cognitive message strategy to affective message strategy for each level of execution framework and it is highest for affective advertisements ($M = 3.5$) when the execution framework is personality symbol.

**Figure 1: Message strategy by execution framework on teenage boys’ attention towards advertisement by taking message strategy in the horizontal axis**

To test the third hypothesis also, Analysis of variance (ANOVA) was used considering comprehension of the advertisement by the teenage boys as the dependent measure. The interaction effect between message strategy and execution framework ($F(9, 7980) = 24.8 \ p < .01$), are found to be significant. A summary of the interaction effect of ANOVA results can be found in Table 3.

**Table 3: Dependent Variable: Comprehension of the teenage boy**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessStrat * ExeFrame</td>
<td>123.944</td>
<td>9</td>
<td>13.772</td>
<td>24.804</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>4430.592</td>
<td>7980</td>
<td>.555</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
A significant interaction between message strategy and execution framework has been illustrated in Figure 2 which shows that how the teenage boys’ comprehension gets increased from cognitive message strategy to affective message strategy for each level of execution framework and it is highest for affective advertisements ($M = 3.87$) when the execution framework is personality symbol.

**Figure 2: Message strategy by execution framework on teenage boys’ comprehension of the advertisement by taking message strategy in the horizontal axis**

Analysis of variance (ANOVA) was used to analyze the fourth hypothesis considering retention of the advertisement in memory as the dependent measure. The interaction effect between message strategy and execution framework ($F(9, 7980) = 13.1 p < .01$), are found to be significant. A summary of the interaction effect of ANOVA results with retention of the advertisement in memory as dependent measure can be found in Table 4.

**Table 4: Dependent Variable: Retention of the Advertisement in memory**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessStrat * ExeFrame</td>
<td>64.058</td>
<td>9</td>
<td>7.118</td>
<td>13.095</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>4337.517</td>
<td>7980</td>
<td>.544</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A significant interaction between message strategy and execution framework has been illustrated in Figure 3 which shows that how the teenage boys’ retention gets increased from cognitive message strategy to affective message strategy for each level of execution framework and it is highest for affective advertisements ($M = 3.59$) when the execution framework is personality symbol.
Figure 3: Message strategy by execution framework on teenage boys’ retention of the advertisement by taking message strategy in the horizontal axis

To test the fifth hypothesis also, Analysis of variance (ANOVA) was used considering attitude of the teenage boys towards the advertisement as the dependent measure. The interaction effect between message strategy and execution framework \((F(9, 7980) = 24.66 \, p < .01)\) are found to be significant. A summary of the interaction effect of ANOVA results with attitude of the teenage boys towards the advertisement as dependent measure can be found in Table 5.

Table 5: Dependent Variable: Attitude of the teenage boys towards the advertisement

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessStrat * ExeFrame</td>
<td>185.169</td>
<td>9</td>
<td>20.574</td>
<td>24.655</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>6659.158</td>
<td>7980</td>
<td>.834</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A significant interaction between message strategy and execution framework has been illustrated in Figure 4 which shows that how the teenage boys’ attitude gets increased from cognitive message strategy to affective message strategy for each level of execution framework and it is highest for affective advertisements \((M = 3.79)\) when the execution framework is personality symbol.
Figure 4: Message strategy by execution framework on teenage boys’ attitude towards the advertisement by taking message strategy in the horizontal axis

![Diagram showing message strategy by execution framework](image)

A similar analysis was also conducted using purchase motivation as the dependent measure to test the sixth hypothesis. Again, the interaction effect between message strategy and execution framework ($F(9, 7980) = 19.3, p < .01$), are found to be significant. A summary of the interaction effect of ANOVA results with purchase motivation of the teenage boys towards the advertisement as dependent measure can be found in Table 6.

Table 6: Dependent Variable: Purchase Motivation of the teenage boy

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MessStrat * ExeFrame</td>
<td>105.894</td>
<td>9</td>
<td>11.766</td>
<td>19.297</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>4865.652</td>
<td>7980</td>
<td>.610</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A significant interaction between message strategy and execution framework has been illustrated in Figure 5 which shows that how the teenage boys’ purchase motivation gets increased from cognitive message strategy to affective message strategy for each level of execution framework and it is highest for affective advertisements ($M = 3.54$) when the execution framework is personality symbol.
5 FINDINGS

The print advertisements utilize text and pictures to communicate with the teenage boys. However, which type of messages and images are preferred by the teenage boys have rarely been explored. Therefore, we were not much aware of which type of message strategy and execution work are most preferred by the teenage boys of India and how can advertisers make the advertisements most effective for the teenage boys.

From the present research, it has been found that advertisement elements like message strategy and execution framework influence processing and understanding of advertising messages by teenage boys. The result clearly shows that the affective message with personality symbol as execution framework leaves the maximum impact on attention, comprehension, retention, attitude and purchase motivation of the teenage boys of India. Thus the advertisements with affective message strategy and personality symbol as execution framework are most effective while targeting the teenage boys.

6 CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Creating and producing effective advertising is one of the main aims pursued by advertising agencies. In this task, the advertising agencies constantly search for new advertising strategies which will help get their message across to the public as effectively as possible. Affective message strategy relate to the teenage boys’ social and/or psychological needs for purchasing a product or service. Many teenage boys’ motives for their purchase decisions are emotional, and their feelings about a brand can be more important than knowledge of its features or attributes. Advertisers for many teenage boys’ products and services view rational, information based appeals as dull. Many advertisers believe that appeals to teenage boys’ emotions work better at selling brands that do not differ markedly from competing brands, since rational differentiation of them is difficult.

Urban teenage boys prefer a type of advertising execution which involves developing a central character or personality symbol that can deliver the advertising message and with which the product or
service can be identified. Many of the advertisements use the celebrities like popular film stars and cricketers and the brand derives its persona from the image of the celebrity used. Even some times the representative of the common man become the spokesperson of the brand and thus becomes the personality symbol of the brand. Since the youngsters of this generation are very particular about their projected personality, the personality symbol of the brand leaves a high impact on them.

Thus the present research gives a guideline to the practitioners to use affective advertisements with personality symbol as execution framework while targeting the urban teenage boys of India.

Limitations and directions for future research
The premise of the study was examining how message strategy and execution framework influence the processing of advertisements by the teenage boys. As dependent measures, attention, comprehension, retention, attitude and purchase motivation were used to determine an advertisement’s effectiveness. Other measures of effectiveness, especially the sales, warrant further research. Further levels of message strategy and execution framework may also be incorporated in future studies. Additionally, other significant advertisement components like colour of the advertisement, size of the advertisement and location of the advertisement need further looking into. Further objectivity can be brought into future research by measuring the cognitive functions of teenage boys through brain scanning devices like functional Magnetic Resonance Imaging (fMRI), Electroencephalography (EEG) and Magneto-encephalography (MEG) while they watch the advertisements. Electromyography (EMG) can also be used for evaluating and recording the activation signal of facial muscles while consumers watch the advertisements. The problem of the subjective measure used in the present study is that consumer is not capable of exactly expressing how long the advertisement attracted his attention, which means that the measurement’s validity is not totally adequate (Pechmann and Stewart, 1990). The future academic researcher may use eye-camera and pupilometer for objective measurements of attention. Another improvement of the present research can be done by pursuing further research on industry specific advertisements which could yield sector specific results. Last but not the least, besides gender and age, other parameters could also be employed as per the segmentation variable of that particular product or service.

REFERENCES


Developing human capital by linking emotional intelligence with personal competencies in Indian business organizations

Kavita Singh
Faculty of Management Studies, University of Delhi
Delhi–110007, India
Tel: ++91-11-9810784874
Email: kavita@fms.edu

Abstract

The concept of emotional intelligence has become so popular in the management literature that it has become imperative to understand and leverage it for the sake of enhancing the capacity of human capital in organizations. As the pace of change is increasing and world of work is making ever greater demands on a person’s cognitive, emotional and physical resources, this particular set of abilities are becoming increasingly important. Since majority of the concerns in organization involve people in different roles, emotional intelligence must become a determining factor for their effective management. It has also been found that ultimately it is the emotional and personal competencies that we need to identify and measure if we want to be able to predict performance at workplace resulting in its effectiveness, thereby enhancing the worth of the human capital. In this scenario the competencies possessed by the people will have a bearing on the extent to which they can actualize their emotional intelligence. The current paper sets out to examine the relationship between the emotional intelligence of executives in Indian business organizations with their personal competencies. The result suggests that emotional intelligence is significantly related with the personal competencies of employees and the variables of personal competency namely, people success, system success and self success have a predictive relationship with emotional intelligence.

Keywords: emotional intelligence, personal competencies, self success, people success, task success, system success
1 INTRODUCTION

James Dozier discovered the power of emotional intelligence in 1981, which resulted in saving his life. Dozier was a U.S. Army Brigadier General who was kidnapped by the Red Brigades, an Italian terrorist group. During the initial days his captives were euphoric with excitement and were agitated and irrational at times and he felt that his life was in danger. To save himself, he remembered something he had learned about emotion in an Executive Development Program at the Center for Creative Leadership in Greensboro, North Carolina.

Emotions are contagious, and a single person can influence the emotional tone of a group by modeling. He first thought of getting his own emotions under control, quite a difficult task to achieve! He tried to calm himself and conveyed his calmness to his captives through his actions. He then realized that his captors also caught his calmness and became more rational. In retrospect when Dozier looked back on this episode, he was convinced that his ability to manage his own emotional reactions and those of his captors literally saved his life (Campbell, 1990).

The term emotional intelligence (EI) had not been coined in 1981, but James Dozier actually experienced it live and gave us an initial framework to identify what it is: “The ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others” (Mayer, Salovey, & Caruso 2000). Dozier could perceive accurately the emotional reactions of his captors, and he also diagnosed the danger that those reactions posed for him. By regulating his emotions and then expressing them effectively, he was able to manage the emotions of his captors. This incident illustrates emotional intelligence in action.

Since then the concept of emotional intelligence has become so popular in the management literature that it has become imperative to understand and be aware of the research and theory on which it is based. It is also useful to consider how emotional intelligence is important for effective performance at work place. As the pace of change is increasing and world of work is making ever greater demands on a person’s cognitive, emotional and physical resources, this particular set of abilities are becoming increasingly important.

Traditional measures of intelligence, although providing some degree of predictive validity, have not been able to account for a large portion of the variance in work performance and career success. As Goleman (1998) states, “When IQ test scores are correlated with how well people perform in their careers the highest estimate of how much difference IQ accounts for is about 25 percent (Hunter & Hunter, 1984; Schmidt & Hunter, 1981). A careful analysis, though, suggests that a more accurate figure may be no higher than 10 percent and perhaps as low as 4 percent” (Sternberg, 1997).

The Impact of Emotional Intelligence on Workplace Effectiveness

Look deeply at almost any factor that influences work place effectiveness, and you will find that emotional intelligence plays a role. Any growing and prosperous organization needs to retain good employees, particularly those with the competencies that are important in the high-tech economy. What is it that can make an employee stay with an organization for a longer duration? A Gallup Organization study of two million employees at seven hundred companies found that duration of stay of an employee in a company and his productivity would be determined by his relationship with his immediate supervisor (Zipkin, 2000). In another study by Spherion, a staffing and consulting firm in Fort Lauderdale, Florida, and Lou Harris Associates, it was found that only 11 percent of the employees who ranked their bosses as excellent were likely to look for another job, however, 40 percent of those who ranked their bosses as poor wanted to leave. In other words, people who have good relation with boss are four times less likely to leave than are those who have poor relationship (Zipkin, 2000).

The greatest challenges that the organizations face today include (Cherniss, 2001):

- Coping with massive, rapid change.
- Employees need to be more creative in order to drive innovation.
- Managing huge amounts of information.
- Enhancing customer loyalty.
- Employees need to be more motivated and committed.
- Need for collaborative effort.
- The organization needs to make better use of the special talents available in a diverse workforce.
- The organization needs to identify potential leaders in its ranks and prepare them to move up.
- The organization needs to identify and recruit top talent.
• The organization needs to make good decisions about new markets, products, and strategic alliances.
• The organization needs to prepare employees for overseas assignments.

These and many more concerns today confront work organizations, both public and private. Since majority of these concerns involve people in different roles, emotional intelligence must become a determining factor for their effective management. And in virtually every case, emotional intelligence must play an important role in handling the concern. For instance, while dealing with the process of change in an organization a lot of emotions get generated which may range from very positive to very negative (Singh, 2005). This requires ability on the part of both the employer and the employees to perceive and understand the emotional impact of change on self and others. To be effective in helping their organizations manage change, leaders should be aware of and manage feelings of anxiety and uncertainty of their employees (Bunker, 1997). They also should be able to appreciate the emotional reactions of other employees and help them to cope up with change. Besides the leader, the other members of the organization should be also able to monitor and manage their own emotional reaction as well as of their colleagues. Ultimately it is these social and emotional competencies that we need to identify and measure if we want to be able to predict performance at workplace resulting in its effectiveness.

2 LITERATURE REVIEW

Emotional Intelligence
Salovey and Mayer (1990) coined the term emotional intelligence in 1990, while being aware of the previous work on non-cognitive aspects of intelligence. They described emotional intelligence as "a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and action". In the early 1990's Daniel Goleman became aware of Salovey and Mayer's work, and this eventually led to his book on Emotional Intelligence.

Goleman proposes that cognitive skill 'can help you get a job' in a company, but emotional skill helps you 'grow in the job' once you're hired. To illustrate Goleman's point, psychologist Stein and Book (2006), marketers of tests that assess employees' emotional intelligence quotient (EQ), cite the example of a Harvard business graduate who received numerous job offers from companies clamoring to hire her. However, due to a lack of emotional intelligence, the woman continually sparred with her employers and couldn't keep any of the jobs. Goleman (1998) concludes by stating that 'Emotional intelligence matters twice as much as technical and analytic skill combined for star performances. And the higher people move up in the company, the more crucial emotional intelligence becomes.'

To rise higher in one’s professional competence at the workplace, it is not just essential that individuals are good in their jobs. They are required to be more positive, approachable, warm, empathetic and optimistic. A number of studies in the area suggest that it takes more than traditional cognitive intelligence to be successful at work. The emotional intelligence of the person which include his ability to restrain the negative feelings and focus on positive feelings plays an important role in determining his success. The idea got further boost with the release of a book by Daniel Goleman, 'Emotional Intelligence: Why it Can Matter More than IQ,' (1995).
In another book, 'Working With Emotional Intelligence', Goleman (1998) focused on the need for emotional intelligence at work, an area often considered more head than heart. The notion does not remain limited to the managers and leaders of the organization but any job that requires dealing with people would require the input of emotional intelligence. Also, whereas IQ is relatively fixed, emotional intelligence can be built and learned. Companies can test and teach emotional intelligence, and many employers are already beginning to do so.

For the purpose of the present study, emotional intelligence has been discussed with the help of following dimensions:

Self Awareness: Self-awareness is being conscious of and being able to connect with our personal feelings, thoughts and actions. This helps a person get a clearer perception of what he wants to achieve in life and therefore be able to work on his level of competencies. Self-awareness may also include some degree of self-disclosure so that we can develop effective relationship with other people around us and lead a more fulfilling life by sharing and receiving information.

Commitment: True commitment is a virtue and a personal trait that is learned very early in life. Being committed is a state of mind and is determined by number of factors. It is based on one’s own personal choices as well as the expectations from other people around us. It is also determined by the
quality of relationship we share with people, groups, organizations or tasks that we are supposed to be committed to.

**Resilience:** Resilience refers to one’s ability to adjust well in adverse stressful and crises situations. It is the ability to perform well and consistently in a range of situations and when under pressure. The degree of resilience can vary amongst individuals from being high to low on resilience. A number of factors determine a person’s ability to be resilient even in adversities. These include age, gender, and frequent exposure to stressful situations.

**Optimism:** Optimism is defined as an approach in life where a person has a positive belief that good things will happen independent of one's ability. It could be the result of both the inherited characteristics as well as experience. Some of us are naturally inclined to be positive thinkers and therefore optimistic while few of us also acquire it through social interaction. Companies, as well as individuals, create their own internal expectations of optimism or pessimism. The attitude starts with the basic belief in things around us - good or bad.

**Compassion:** Compassion has been defined as awareness about the suffering of others and a desire to relieve that suffering. It is a kind of emotion: a feeling in motion. In addition to the wish to help the other person in distress it may also involve taking actions and making efforts to help them overcome it. It is an active feeling. When a feeling is active, it can be used as a tool. As a tool, it can be used in a positive or negative manner.

**Interpersonal Connectivity:** Interpersonal connectivity can be described as an ability to develop effective relationship with other people around you and get along with them both in personal and professional lives. The success of this connectivity would be determined by the response from the other party.

**Personal Integrity:** Personal integrity refers to a quality of a person's character. This includes being honest with oneself as well as with others around you. It also involves being responsible for what you seek and undertake in life and being able to own up one’s own faults in cases of failure. It encompasses the concept of wholeness, intactness and purity about one’s thoughts, feelings and actions.

**Emotional Regulation:** Emotional regulation is the ability to regulate one’s emotions whenever required. It may be required to either enhance or reduce one’s emotion according to the demands of the situation. Emotional regulation can also be described as a range of skills that are instrumental in keeping the emotional system healthy and functioning. It includes being able to recognize the emotional response and understand it; accept the response as being your own; identify strategies to reduce or enhance the intensity of the emotions; and engage in the goal directed behaviour.

### 3 PERSONAL COMPETENCIES

According to Boyatzis (1982), competence means different things to different people. However, it is generally accepted as encompassing knowledge, skills, attitudes and behaviours that are causally related to superior job performance. This understanding of competence can be either described on the basis of attribute-based inference (Gonczi & Hager, 1992) or on the basis of performance-based approach which demonstrates performance at pre-defined acceptable standards in the workplace (Gonczi et al., 1990).

The definition of "competency" adopted from Parry's (1998) work includes a multi-dimensional approach to understand competency. According to this definition competency:

- is "a cluster of related knowledge, attitudes, skills, and other personal characteristics that affects a major part of one's job,
- correlates with performance on the job,
- can be measured against well-accepted standards,
- can be improved via training and development and
- can be broken down into different components”.

The major components of competencies include: abilities, attitudes, behaviour, knowledge, personality and skills. Another definition of "personal competency" which has been adopted from Finn (1993) and Crawford (1997) states that personal competency is "the core personality characteristics underlying a person's capability to do a project. These are behaviour, motives, traits, attitudes, and self concepts that enable a person to successfully manage a project”.

According to Spencer and Spencer (1993) the six components of competency are:

- Achievement and action: This competency consists of achievement orientation; concern for order in quality and accuracy; initiative and information seeking.
• Helping and human service: This competency implies that the manager has customer service orientation and interpersonal understanding.
• Impact and influence: This competency comprises impact and influence capability; organisation awareness and relationship building.
• Managerial competency: This competency includes teamwork and cooperation; capability in developing others; team leadership and directiveness, assertiveness and positional power using.
• Cognitive: This competency implies that the manager has both analytical thinking capability and conceptual thinking ability.
• Personal effectiveness: This competency covers self-control; self-confidence; flexibility and organizational commitment.

Considering the understanding of a number of corporate giants, such as, AT & T, Chevron, Citicorp, General Electric, Honeywell and Pepsi-co, Ryback (1998) has proposed seven core competencies of today’s successful managers:
• Strategic planning
• Communication and alignment
• Team building
• Continuous learning
• Dynamic accountability
• Systematic results
• Actualized integrity

4 LINK BETWEEN EMOTIONAL INTELLIGENCE AND PERSONAL COMPETENCIES

As a person makes a transition from the transactional to transformational approach to create a necessary socio-emotional nearness with people around him, the trait of emotional intelligence becomes a reality. The resultant strengthening of bonds between the individuals help both parties to establish trust and mutuality based on common interests, goals, and a sense of mission, creating the necessary conditions for achievement of personal and organizational goals. Essentially, in order to connect the individual has to bring into play certain personal, social and organizational competencies in mutually acceptable combinations for achieving organizational excellence. Thus, emotionally intelligent behaviour addresses the basic issues for bringing workplace effectiveness and helps to attain higher levels of organizational growth and excellence. This essentially aids in the process of developing congenial work environment in the organization leading to efficiency at the workplace and development and enhancement of human capital.

Recently, some of the American companies have started concentrating on this dimension of the human being. It deals with those ultimate human capacities and potentialities, which have a significant impact on the various aspects of organizational climate. Enrichment of the emotional dimension would help to solve behavioural problems arising from material and social dimensions and contribute to the true effectiveness of an organization (Elankumaran et al, 2005).

With the opening up of the Indian economy through liberalization, privatization, globalization and natural thrust towards information technology the tasks of Indian business executives has become more demanding. The challenges get multiplied when the Indian executives have to work in diversified work cultures. The workforce diversity has not only offered the emotional stability to the executives but has also come on the way of leadership behaviour and effectiveness (Punia, 2004). Technology represents only 5% of the transformation process; the other 95% of a company’s metamorphosis is represented by the changes in organizational behaviour and culture that are the heart of leadership.

The emotional intelligence intervention is partly a response to the problems that businesses face today. There is a need to develop the highest standard of leadership skills, the challenges of high team turnover, ever increasing demands of customers for high quality goods and services, rapidly changing business environment, economic demands or escalating costs. What companies need is people who have both technical knowledge and social and emotional abilities which will enable them to delight the customers. Emotional intelligence can contribute to developing those skills and abilities that are linked with this aspiration (Orme & Langhorn, 2003). Personal competencies play a very vital role in influencing the emotional intelligence of employees in organizations.
For the purpose of present study following four dimensions of personal competencies have been identified:

- People success
- Task success
- System success
- Self success

**People Success:** This competency involves understanding behaviour in interpersonal context, where people refer to connectivity and building bridges with others for attaining and maximizing common goals. Interactivity denotes interrelationship among people and refers to how they relate to one another. Empathy, service and organizational awareness are corner stones of social connectivity. Emotional intelligence is becoming crucial in the context of individual’s behaviour within the organizational context. With the flattening of the organization structure, the span of control is now larger for the leader who has to adapt emotionally intelligent behaviour to generate people success. In a study by Singh (2007), it was found that the relationship dimension of individual behaviour is important to be effective leader and adds to his success. Jordan and Troth (2004) also found that emotional intelligence was directly related to performance at group level and emotions are important contributing directly to team performance. Thus the following hypothesis is proposed:

Hypothesis 1 (H1): Emotional intelligence is significantly related to people success.

**Task Success:** This competency refers to the ability of the individual to focus on the current task in hand and try to do it with utmost efficiency and accuracy. This will also involve the use of creative thoughts and innovative principles in handling the tasks more effectively. In a study by Lyons and Schneider (2005), it was found that certain dimensions of emotional intelligence were related to more challenge and enhanced performance, thereby increasing task success. Lopes et. al. (2006) found that employees high on emotional intelligence received greater merit increases and held higher company rank than their counterparts. These employees also received better peer and/or supervisor ratings of interpersonal facilitation and stress tolerance. A study by Jaeger (2003) revealed a strong relationship between emotional intelligence and performance of employees leading to task success. On the basis of these findings the following hypothesis is proposed:

Hypothesis 2 (H2): There is a significant positive relationship between Emotional intelligence and task success

**System Success:** With this competency, individuals are focused on the organizational issues and the act of doing things together in the organizational context becomes a reality. The following processes occur with this competency in the organizations:

- The person identifies the organizational and environmental variables that control his or her behavior.
- The person works with others to discover the personalized set of environmental or organizational contingencies that regulate their behavior.
- The individuals jointly attempt to build bonds to cultivate and maintain a web of relationships to produce more mutually reinforcing and organizationally productive outcomes.

Sy, Tram and O'Hara (2006) reported managers’ emotional intelligence had a stronger positive correlation with job satisfaction and job performance. Lyons and Schneider (2005) found that high emotional intelligence levels promote challenge appraisal and lead to better performance. It has been suggested in one of the studies that a link between the emotional intelligence and work place measure of effectiveness would lead to enhanced system success (Rosete & Ciarrochi, 2005). Thus the following hypothesis is proposed:

Hypothesis 3 (H3): Emotional intelligence has a significant positive relationship with system success

**Self Success:** This competency consists of self-awareness, which is the basic foundation on which emotionally intelligent behaviour germinates and refers to the ability to read one’s own emotions and recognizing their impact to guide decisions. It is necessary for the individuals to have an accurate self assessment by knowing his/her own strengths and limitations (Self directed learning). A self directed
learning leads to a positive evaluation of one’s self worth and capabilities which are vital for one’s success.

Since emotional intelligence comprises both intra-personal and interpersonal abilities, the success of self is the key component of emotional intelligence. Stein and Book (2006) elaborated the concept of self as the ability to recognize one’s feelings and to be able to differentiate between them, to know what you are feeling and also to know what caused that feeling. An emotionally intelligent person is able to do thereby leading to self success. Thus the following hypothesis is proposed:

Hypothesis 4 (H4): Emotional intelligence is significantly related to self success.

For the competencies to be effectively converted into developing an empowered workforce, the following steps are necessary to create an environment in which people can grow:

- Focus on development should be well-communicated.
- Individual should own up the responsibility for their own development and leaders should help them in providing with resources and support.
- After an assessment of the strengths and weaknesses and therefore on the basis of competency gaps, individuals should be able to develop their development plans.
- A deadline should be formulated to achieve the targets with proper feedback system in place.
- A proper reward system needs to be developed to keep the employees of the organization motivated.

5 CONCEPTUAL FRAMEWORK

The present study intends to determine the relevance of the concept of emotional intelligence to the business organizations and to explore the extent to which it may be possible to utilize this concept as a means of creating a sustainable competitive advantage by attracting, motivating, training and retaining customer conscious employees at all levels of the organization.

The objective of the study is to develop a framework to identify the relationship between emotional intelligence and personal competencies of executives in Indian business organizations. The expected linkage between the dimensions of personal competencies and emotional intelligence are presented in Figure 1. The model (Figure 1) below depicts the influence of personal competencies on emotional intelligent behaviour which is instrumental in enhancing the human capital in this emerging paradigm. In this theoretical construct the dimensions of personal competencies are the independent variables and emotional intelligence is the dependent variable. The model proposes to suggest that to develop an emotionally intelligent work force; personal competencies need to be promoted in business organizations.
6 METHOD

This section discusses sample size, data collection along with suitable statistical tests used for evaluating research hypotheses.

Sample and Data Collection
A total of 500 self-administered questionnaires were distributed at managerial level. Against the targeted sample of 500 questionnaires, 378 questionnaires have been collected and analyzed. Stratified random sampling was used to collect the data. The distribution of the questionnaire was done on the basis of suitability mostly by personal contact, e-mail and use of postal services. The concerned person was contacted through phone or email before sending the questionnaire. As the questionnaire was self explanatory, the respondents were asked to respond as per the instructions given in the questionnaire and were assured of confidentiality. A total of 378 correctly completed questionnaire were returned by the respondents.

There were three sections of the questionnaire used to collect the necessary data. The first portion of the questionnaire inquired about the personal information of the respondents. The second portion focused on emotional intelligence (dependent variable) and consisted of 8 dimensions measured with the help of 40 items with the highest score being 200. The eight dimensions were:

1. Self awareness
2. Commitment
3. Resilience
4. Optimism
5. Compassion
6. Interpersonal Connectivity
7. Personal Integrity
8. Emotional Regulation

The scales used in the questionnaire included the Likert Scale. The Likert scale uses a rating of 1 to 5, where 1 indicates ‘Strongly Disagree’ and 5 indicates ‘Strongly Agree’. The reliability statistics Cronbach Alpha was calculated to be 0.81 for the items.
The third section of the questionnaire focused on personal competencies consisting of four dimensions spread over 20 items (measured on a five point scale). This has been developed on the basis of the personal competencies assessment developed by Axiometrics International, Inc. and Workforce Solutions, Inc. It measures four different competencies of the employees namely:

1. People Success
2. Task Success
3. System Success
4. Self Success

The scales used in the questionnaire included the Likert Scale. The Likert scale uses a rating of 1 to 5, where 1 indicates ‘Strongly Disagree’ and 5 indicates ‘Strongly Agree’, with the highest score in each of the competencies being 25. The reliability statistics Cronbach Alpha was calculated to be 0.79 for the items.

Analyses of the Data
The data was subjected to statistical analysis for the purpose of interpretation. Descriptive statistics such as mean, standard deviation and intercorrelations were computed to understand the interdependence between the variables. Multiple regression analysis was used to test the hypotheses.

While collecting the data it was observed that there was non-willingness on the part of the executives to participate in the study for the fear of being quoted and identified. Since the study was based on self reported data, so the findings may be biased by common method variance and spurious cause/effect inferences. The generalizations occurring from the study are more conducive and limited to a particular group of employees who participated in the study. In other words, the limitations come from the sampling techniques used, which is non-probability based convenience sampling.

7 RESULTS

Profile of the Respondents
The total sample size was 378. The group comprised of 102 (27%) females and 276 (73%) males. In the group 26% respondents were in the age group of 21-25 years. 32% of the respondents were in the 26-30 years age category and 22% were in 31-35 years of age. Rest of the respondents were more than 35 years of age. 53% of the respondents were married. While drawing the experience profile of the respondents it was seen that 70% of them had an experience of 5-15 years, followed by 25% with an experience of less than 5 years. 5% were found to be having an experience of 15.25 years. The data was collected from Indian organizations which were situated in and around Delhi, the National Capital of India.

Relationship between the variables
The following table (Table 1) depicts the mean scores and the standard deviations of the variables under study.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Variables</th>
<th>Mean score</th>
<th>Standard deviation</th>
<th>Total number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Emotional Intelligence</td>
<td>152.21 (200)</td>
<td>11.32</td>
<td>378</td>
</tr>
<tr>
<td>2.</td>
<td>People Success</td>
<td>20.63 (25)</td>
<td>2.04</td>
<td>378</td>
</tr>
<tr>
<td>3.</td>
<td>Task Success</td>
<td>20.35 (25)</td>
<td>2.38</td>
<td>378</td>
</tr>
<tr>
<td>4.</td>
<td>System Success</td>
<td>20.48 (25)</td>
<td>2.17</td>
<td>378</td>
</tr>
<tr>
<td>5.</td>
<td>Self Success</td>
<td>20.17 (25)</td>
<td>2.08</td>
<td>378</td>
</tr>
</tbody>
</table>

From the above Table 1 it can be observed that the emotional intelligence and the competency level of the employees’ shows a higher score on the mean indicating that executives in business organization generally possess a high level of personal competency and emotional intelligence. The next step in the study is to find out the relationship between the emotional intelligence and the dimensions of personal competencies.

The correlation matrix in Table 2 shows the correlation coefficient between the independent variables as identified for the research. A correlation coefficient indicates the strength of the association between the variables. A correlation coefficient is considered significant if the $p$-value is
less than 0.05. As shown in Table 2, in the Indian Business organizations all the dimensions of personal competencies like people success, task success, system success and self success have a significant positive relationship with emotional intelligence.

It is observed that system success has the highest correlation with emotional intelligence followed by people success indicating that both have a strong association with emotional intelligence. The next highest is task success followed by self success. The above findings can help us to conclude that employees in Indian organizations perceived that the focus on personal competencies in organizations will be favourable for the existence and sustenance of emotional intelligence.

Table 2: Correlation between emotional intelligence and the dimensions of personal competencies

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>People success</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Success</td>
<td>0.262**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Success</td>
<td>0.290**</td>
<td>0.450**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Success</td>
<td>0.336**</td>
<td>0.366**</td>
<td>0.157*</td>
<td></td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>0.480**</td>
<td>0.375**</td>
<td>0.516**</td>
<td>0.360**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level, * Correlation is significant at the 0.05 level

Multiple Regression Analysis

To gain an insight into the relationships further between the independent and dependent variables and to identify the predictive relationships between the two sets of variables, if any, multiple regression analysis was done.

From the correlation tables it can be seen that there are a many significant linear correlation between the emotional intelligence and the constructs of personal competencies. Multiple regression analysis was used to diagnose the relationship between a single dependent variable (criterion) and a number of independent variables (predictors). A set of independent variables is weighted to develop the regression equation or model to explain its relative contribution towards one dependent variable. The dimensions of personal competencies were entered in the model as independent variables, while the emotional intelligence was the dependent variable. The results are depicted in Table 3.

Table 3: Results of Regression Analysis

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>coefficient</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>People success</td>
<td>0.298</td>
<td>6.906</td>
<td>.000*</td>
</tr>
<tr>
<td>Task success</td>
<td>0.064</td>
<td>1.367</td>
<td>.172</td>
</tr>
<tr>
<td>System success</td>
<td>0.399</td>
<td>9.681</td>
<td>.000*</td>
</tr>
<tr>
<td>Self success</td>
<td>0.198</td>
<td>4.716</td>
<td>.000*</td>
</tr>
</tbody>
</table>

R Square = 0.421, Adjusted R square = 0.416, F-change = 22.239, Durbin Watson – 2.322

*Significant at 1%, * *Significant at 5%

Table 3 reveals the results of regression analysis. Independent variables explained 42.1% of variance of emotional intelligence (F change = 22.239, p <.05). The result indicates that there are three dimensions of personal competencies namely, people success (β= 0.298, p< .01), system success (β= 0.399, p< .01), and self success (β= 0.198, p< .01), which are positively associated with emotional intelligence. It can be therefore proposed that these three dimensions of personal competencies are directly responsible for presence and sustenance of emotional intelligence in Indian business organizations. Moreover it can be concluded from the findings that people success and system success of executives are the most important variables that explain the variance in emotional intelligence followed by self success. Thus hypothesis H1, H3 and H4 were confirmed.

However, one of the dimensions of personal competencies namely, task success (β= 0.064, p>.05) is not significantly related to emotional intelligence. Though it is one of the important competencies for the executive to possess but the contribution made by it to emotional intelligence is not direct. Thus hypothesis H 2 is not confirmed as its significance level is > than .05.
8 DISCUSSION

Indian economy is moving towards high-tech: high-touch, service based stage of development, which presents new challenges for Human Resource Management. Competencies like managing one’s emotions, handling conflicts, teamwork, leadership, motivation, interpersonal sensitivity, skills at negotiation and personal or internal qualities like empathy, initiative, adaptability, confidence and optimism are much more crucial than academic competence, technical expertise and professional education which constitute relatively only a small part of the picture. This transformation represents a shift from traditional intelligence or cognitive intelligence measured by Intelligence Quotient (IQ) to emotional Intelligence measured by Emotional Quotient (EQ). This study is designed to gain an insight into the development of emotional intelligence on the basis of personal competencies. It has been proposed in the study that it is essential for the executives of the present day business to possess high emotional intelligence and personal competencies impact the presence of emotional intelligence.

The results of the study indicate that people success is one of the important constructs of personal competencies and is strongly related to emotional intelligence. It therefore suggests that an understanding of the ability to relate well with each other in the organizational context paves the way for high emotional intelligence. This has been also supported by the study done by Singh (2007) where it was found that ability to form effective relationships at work place results in high efficiency of employees. Further Jordan and Troth (2004) also suggested that team performance was directly related to the emotional intelligence of employees.

The study also indicates the importance of system success in predicting emotional intelligence of executives in Indian Business organizations. The competency of system success fosters individuals to focus on the organizational issues and identify with the organizational variables that control his or her performance and satisfaction. This finding is supported with the study by Sy, Tram and O’Hara (2006) which reported a strong relationship between emotional intelligence and job performance and satisfaction. Rosete and Ciarrochi (2005) also suggest that a strong association between emotional intelligence and workplace effectiveness lead to system success. Further in a study on 100 bank employees by Manila University (cited in D. Singh 2001) it was found that IQ scores were virtually unrelated with job performance whereas, EQ had high association with job performance.

Besides this, self success, one of the dimensions of personal competencies also contributes to predict emotional intelligence. Self success is an indicator of self-awareness which helps a person to comprehend one’s emotions and recognize its impact on their decisions. Stein and Book (2006) suggested that an emotionally intelligent person is able to identify ones own feelings and to know the cause behind them thereby leading to self success. Further a national survey of American employers revealed that six of seven desired traits for entry-level workers were non-academic (Goleman, 1998) and were related to the understanding and recognition of self and others’ feelings and taking appropriate actions (Sims, 1998).

However, task success was found to be a low predictor of emotional intelligence. This finding highlights that the ability of the individual to focus on the current task in hand and do it effectively does not have strong association with emotional intelligence. It could be more of a factor of cognitive intelligence rather than emotional intelligence. This finding can be supported by Goleman’s (1995, 1998) argument that task performance may not be directly related to emotional intelligence except for providing a bedrock for other competencies to be successful. This has been further supported by (Cavallo & Brienza, 2002). However this finding is in contrast to the study by Jaeger (2003) which revealed a strong association between emotional intelligence and employee performance leading to task success.
With respect to the model proposed the result of the present study can be depicted as follows:

**Figure 2: Results depicted in the proposed model**

![Diagram](image)

Overall the study provides enough evidence to prove that any improvement in the level of personal competencies of executives in the business organization is likely to improve the level of emotional intelligence of the employees too. Therefore to enhance the emotional intelligence of employees in organization, management has to aim to improve the levels of personal competencies of its employees. Employees in organization have to be trained for developing their people focus so that they can have better interpersonal relationship and connectivity in the organization. Management also has to dwell upon the focus on the way the organization operates its systems and processes and train its people to work effectively to work on the existing systems to add on to their levels of emotional intelligence. Besides this individuals have to be emphasized to have a focus on completion of their tasks and lead to its success along with the development of self. All these efforts on the part of the management will help in creating an organization which comprises of emotionally intelligent employees and add to the human capital of the organization.

**9 CONCLUDING COMMENTS**

The study reports an investigation of the relationship between the dimensions of personal competencies and emotional intelligence of executives working in Indian Business organizations. In the present study personal competencies were identified and studied as independent variables that influence the presence of emotional intelligence. To enhance the emotional intelligence of executives organizations have to enhance the competencies of people success, system success and self success.

Human Problems have three dimensions: material, social and metaphysical. Even after adoption of all the external or environmental focus approaches like job enrichment or enlargement, management by objectives, management by exception and participative management; every organization experiences behavioural problems like low level job involvement, job satisfaction and productivity on the one hand and high employee turnover and absenteeism, stress, communication gaps and lack of trust amongst employees on the other hand. The above-mentioned approaches might have failed because they consider the material and social dimensions of human resource only and not the emotional.

To grow and develop in the present kaleidoscopic scenario organizations need to constantly focus on learning so as to gain sustainable competitive advantage. This requires organizations to undertake continuous training and development efforts to impart cognitive as well as emotional learning. Most management and executive development efforts are targeted ton work on non-intellective and non-cognitive aspects or competencies such as self-management, motivation, teamwork, conflict management, stress management, leadership, empathy, sales and customer relations etc.; so that the individual and organizational goals can be attained by engaging organizational members in the desired patterns of thought, feeling and action.
Irrespective of the national boundaries, the outcome of this study can be universally employed to the employees of any organization for the purpose of improving their emotional intelligence so that their competence and effectiveness at the job gets enhanced.

The above mentioned findings can lead us to conclude that emotional intelligence is one of the prerequisite for the success of any business enterprise. Emotional intelligence is an ability which can be developed among people with exposure and training. The existence of personal competencies among people has a major role to play in developing and enhancing the emotional intelligence of employees in business organizations. An attempt to develop the personal competencies of executives in organization can go a long way to improve their emotional intelligence. These efforts are to be made from both the sides i.e., the management and the employees to create a culture in the organization in which competencies are enhanced through training and development which then add up to level of emotional intelligence of the working executives.

A major step in this direction can be the played by the leaders who have to keep their employees in high self esteem and create an environment where there is openness in sharing of ideas and thoughts. Employees have to be encouraged to develop their social skills which would lead to their greater acceptance among their colleagues and subordinates thereby smoothening the work process leading to success in the organization. There may be a discontentment that personal growth in the organizations is not encouraged and rewarded though there are lots of possibilities to be experimental and inventive. Management has to encourage people to experiment with the systems and processes leading to personal and organizational growth.

10 SCOPE FOR FURTHER RESEARCH:

The present study leaves a lot of scope for further research in the area of Emotional Intelligence and Personal competencies. Some of the specific ones are:

1. The researcher in future can do a comparative analysis to find the difference between private and public sector organizations in relation to their levels of emotional intelligence and personal competencies.

2. An international comparison between developed and developing economies will help us become aware of the major transitions taking place in the area of emotional intelligence at the global level.

3. An extensive study of formal implementation of the developmental programs to enhance the emotional intelligence of executives in business organizations could be carried out to facilitate effective and congenial work environment.

REFERENCES


Book Review: Marketing: Real people, Real choices

Hatem El-Gohary
Bradford University School Of Management, UK
Cairo University Business School, Egypt
EMM Lane, Bradford, West Yorkshire BD9 4JL UK
Tel: +44 (0)7525721537
Email: h.o.a.elgohary@bradford.ac.uk

Book Information

Book Title: Marketing: Real people, Real choices
Author: Michael R. Solomon, Greg Marshall and Elnora Stuart
Publisher: Pearson - Prentice Hall, USA
Edition: 5th edition
Year: 2008
Pages: 608 pages
ISBN: 0-13-229920-8
Price: £38.25

Keywords: marketing, marketing management, real marketing
BOOK REVIEW

The fifth edition of this book makes a significant contribution to the literature of marketing by well known authors, and fills an acknowledged void in the field of Marketing. The book provides a resourceful introduction to marketing, and covers a wide range of marketing related aspects as well as a precious selection of real world cases that relate the reader to real marketing situations.

Throughout the book, the authors were able to target students studying marketing at undergraduate and postgraduate levels, as well as practitioners. The authors’ main aim was to provide a comprehensive illustration to all the aspects related to marketing in the real world. The reader can experience these real world marketing situations through three main routes within the book which are: real people/real choices segments, entrepreneurial focused spotlight boxes, and end of part cases which is based on a real start up companies.

The book is divided into five parts. The first three chapters introduce and describe the main concepts of marketing, as well as strategic market planning and thriving in the marketing environment. While the second part is concerned with understanding consumers’ value needs and provides a comprehensive discussion of this value in terms of marketing research, consumer behaviour and B2B markets, the third part is concerned with creating the value proposition. Afterwards, the fourth part provided a deep discussion related to communicating the value proposition and the final two chapters deal specifically with the delivery of value proposition.

In the introduction part of the book the authors provided a clear explanation of the concepts related to the value of marketing, the evolution of marketing, marketing metrics, what can be marketed, the marketing of value and marketing as a process. This is followed by an outline of strategic marketing planning, namely: business planning, levels of business planning, the frame of strategic planning, marketing planning and finally creating and working with a marketing plan. Afterwards, the last chapter in this section is dedicated to thriving in the marketing environment and provided a clear explanation of the concepts related to ethical behaviour, social responsibility, global marketing as well as choosing a marketing mix strategy.

Nevertheless, in the second part of the book the authors provide a good contribution to the field. Here they deal with understanding consumers value needs in a logical but robust manner. Through an uncomplicated presentation style, in the first two chapters of this part the authors were able to illustrate the major issues of marketing research and consumer behaviour. Within this context, the authors provided a good presentation for the different steps in the marketing research process, the concept of data mining, the different steps in the consumer decision making process, the different influences on consumer decision as well as C2C E-Commerce. In chapters six and seven B2B markets, target marketing strategies, positioning and CRM are discussed in some depth.

Within the third part of the book, the authors provided a comprehensive discussion about creating the value proposition. In four chapters they provided a deep illustration for the issues related to the product concept, classifying products, developing new products, product planning, marketing activities throughout the product life cycle, creating product identity, effective product management, marketing people, pricing and its strategies, estimating demand and cost and finally legal and ethical issues in pricing.

Moreover, the fourth part was devoted to cover communicating the value proposition in terms of advertising, sales promotion, public relations, personal selling and sales management. Afterwards, the last part of the book relates to delivering of value proposition. In chapters fifteen and sixteen the authors covered the issues related to the delivery of value proposition through the value chain, distribution channels and the concept and issues of retailing The book ends with a thorough analysis of developing a store positioning strategy.

The presentation style throughout the book makes its accessible since each section has real world implications and clear links to other chapters. Moreover, each chapter provides appropriate definitions, clear discussion, chapter review and marketing in action cases. From the reviewer point of view, the book covers a broad range of marketing applications and offers a precious selection of real world cases. These in depth cases are assisted by the clarity of presentation and the authors’ experience, providing an aid for successful learning and help to achieve the main aims of the book.

To sum up, the book is comprehensive and, a delight to read. It contains a lot of useful information in its 608 pages and demonstrates that the authors are recognised specialists in this field. The book will be beneficial to students, academicians and practitioners involved in marketing implementation. The reviewer believes that this is a good book and highly recommends reading it.
Book Review: Critical Human Resource Development – Beyond Orthodoxy

Sven Horak
University of Duisburg-Essen, Mercator School of Management
Forsthausweg 2, 47057 Duisburg, Germany
Tel: ++49 (0)203 379 4185
Email: sven.horak@uni-due.de

Book Information

- **Book Title:** Critical Human Resource Development – Beyond Orthodoxy
- **Author:** Rigg, C., Stewart, J. and Trehan, H.
- **Publisher:** Prentice Hall
- **Edition:** 1st edition
- **Year:** 2007
- **Pages:** 287 text; 297 including index
- **ISBN:** 97802737305598
- **Price:** £40.00

**Keywords:** human resource development, human resource management, training
BOOK REVIEW

The book “Critical Human Resource Development – Beyond Orthodoxy” is truly critical to the subject of Human Resource Development (HRD) in a progressive and constructive way. Therein its convincing strength lies. It is written by authors who have a profound background in HRD, either in academics or as professionals. The term critique is regarded throughout the book as the driver for advancement of the HRD subject. The core issues of this book deal with four areas that are to be investigated.

First, HRD has been so far focussing to improve performance defined in economic terms predominantly. Second, it targets namely the reliance on humanist assumptions about identity and personhood of traditional HRD. That is certainly good but it has led to the exclusion of alternative discourses. For instance to which extend are they culturally or temporally specific? The third criticism targets the view on HRD just as a kind of training activities. Therewith its scope for research and practice, named here the ‘representationalist perspective’ is being limited. Using a different frame would have an implication on research hence it would contribute to a better understanding of HRD. The fourth major point of critique centres on the traditional domination of pedagogical methods that influence the HRD curriculum. In a broader sense the critic wants to be more critical to what is taught by the traditional HRD and goes beyond being critical instead of just taking for granted the ideas and follow the theory of critical thinking.

The book is composed of four main parts and it is divided into twelve chapters which were written by fifteen authors. In the following I will summarise the main four parts of it with regard to selected chapters.

The first part takes a critical view on HRD in general. It discusses what it means to be critical in this field and how this is defined. Moreover, it analyses why it is worth being critical. In addition to this, it outlines the challenges implied. Very interesting are the contributions by Hatcher and Steward on the ethical aspects of HRD. While Hatcher discusses the paradoxon about the HRD as a discipline which deals with the human behaviour in its core but which nonetheless has not been influenced by ethics at all, as it should have been, Steward argues that HRD per se was an ethical subject. His approach derived from a socio-biological angle and it is an interesting way of explaining human behaviour which HRD also aims at establishing.

The second part is dedicated to HRD in the workplace. Here, the role of gender is investigated by Metcalf/ Rees, who make a valuable contribution because this subject has just been little investigated so far although it should be considered as fundamental, actually. Unfortunately, it often finds fewer acknowledgements in the workplace, especially in the area of management and HRD, which is today still dominated by masculine conceptual schemes. In the following chapter, Francis analyses the discursive and social nature of HRD using the example of a manufacturing company that changed its organisation to a less hierarchic form. In this case, the relationship of line managers and HRD practitioners is investigated. The article written by Kellie features two case studies. Her analysis focuses on the intersection of the offer tools-and-techniques-based form of management education and management development. In this context she scrutinises the role of HRD.

The third part of the book focuses on constraints in the classroom. The first essay discusses the usefulness of thinking-tools, such as critical social theory in an action learning situation, stressing several benefits of critical reflection for managers. The next two essays include the research on a critical curriculum for postgraduate teaching of HRD, including a recommendation in respect of a less hierarchical teacher-student relationship (by Valentin) and finally, there is an explorative discourse by Harvery on the dilemmas when working in creative ways with students, especially focussing on different forms of creative writing.

The fourth part accentuates a critique of critical orthodoxy. The chapters imply not only a critical view on subjects as presented in the previous chapter but critically spotlight on existing learning techniques by reinterpreting them, or a final reflection on various perspectives in critical HRD.

It has to be noted that the book is excellently structured. Each of the four parts of the book presents an introduction that outlines the following essay and each part features an outro named “activities”, asking the reader to rethink and apply the key items learned from the previous chapter – a truly professional and effective structure.

It would do the book well if further editions would include a fifth part on the important impact of culture on HRD. That section could contain an analysis on how HRD is approached by other than western cultures, e.g. in collective cultures such as Japan. The result could open new horizons, especially in the frame of an ethical or moral discourse. So far, the book appears to be quite Western if not just U.K. centred.
As the book does not solely look at HRD and on how it can contribute the most to managerial goals in profitability terms but takes a look far beyond this scope, it contributes to bringing HRD back to where it actually belongs to – into the centre of interest for advancement of society. It should be a standard book for those who are seriously engaged in HRD. It suits well for postgraduates, organisational HR developers or HR consultants.

Herbert Kotzab
Dept. of Operations Management, Copenhagen Business School
Solbjerg Plads 3, 2000 Frederiksberg, Denmark
Tel: +45 38152450
Email: hk.om@cbs.dk

Book Information

- **Book Title**: Essentials of Systems Analysis and Design: An international version
- **Author**: Joseph V. Valacich, Joey F. George and Jeffrey A. Hoffer
- **Publisher**: Pearson Education International
- **Edition**: 4th edition
- **Year**: 2009
- **Pages**: 464 pages
- **Price**: £50.99

**Keywords**: systems analysis, systems design, object-oriented analysis and design
BOOK REVIEW

The fourth edition of Essentials of Systems Analysis and Design based on more than 50 years’ experience in teaching systems analysis and design, emphasizing on hands-on and experimental learning of the concepts, skills and techniques that are required for an effective analysis and design of systems. The book addresses the three key factors any student need to be aware of in today’s information and technology driven business: The knowledge on how to organize and access information strategically, the ability to work in a team and to use the Internet. It also combines depth of coverage with brevity by offering 10 chapters in five parts which cover the essentials of system design and analysis content without overwhelming the reader with unnecessary detail.

The organization is as follows:

- **Part I: Foundations for System Development**—gives an overview of systems development and previews the remainder of the book. The three chapters discuss the environment of systems development including a modern approach to systems and systems development as well as go through the sources of software. Furthermore, the reader gets a compact overview to the management of an information systems project.

- **Part II: Systems Planning and Selection**—covers how to assess project feasibility and build the baseline project plan. This section gives an insight into how to plan and to assess a development project.

- **Part III: Systems Analysis**—covers determining system requirements, process modelling, and conceptual modelling. After the system requirements are determined, the reader gets introduced to the modelling of processes and the conceptual data modelling. All these phases are discussed theoretically and afterwards applied on the Case company.

- **Part IV: Systems Design**—covers how to design the human interface and databases. This includes the design of forms, reports, determination of deliverables and outcomes as well as the design of the data base that is going to be used.

- **Part V: Systems Implementation and Operation**—covers system implementation, operation, closedown, and system maintenance. Here, there reader is going through the whole process of testing the software application, installation, documentation for users, training and support of users as well as conducting the maintenance of the system.

The book also includes two very supportive Appendices. Appendix A introduces the reader to object-oriented analysis and design by showing the tools that can be used for this purpose. This includes object as well as dynamic modelling. Appendix B discusses agile methodologies, which are development methodologies with short iterative cycles, extensive testing and active involvement of users.

All chapters are organized around the “systems development life cycle” (SDLC) providing a strong and systematic framework. There are also three fictional cases included which show the reader how systems analysis and design is applied in different business situations. The cases are accompanied with Internet coverage and features allowing the reader to follow the cases and recognizing how the Internet can affect the development of systems. Each chapter closes with an extensive selection of material that accommodates various learning and teaching styles. This includes key review points, a checkpoint of the key terms, review questions, problems and exercises, discussion questions as well as case problems.

As compared to previous editions, several revisions have been completed. This edition emphasizes on the current changes in systems analysis in greater depth and also discusses in more detail the issue on make versus buy in systems integration. Updates refer to project management, illustration of technology and the end-of-chapter running case. The references at the end of the book are grouped for each chapter and invite the interested reader for further investigations in the subject matter.

Although being technical, the book calls attention to a managerial approach for analyzing and designing system where the methods and principles of systems development are in the focus rather than specific tools of the field.

In teaching, the book can be combined with a comprehensive and flexible technology supported supplement package. Students are able to perform net searchers, a glossary of terms as well a glossary of acronyms. Useful web links in form of destinations are also included to help students explore systems analysis and design. The book is also designed for offering the course online as files are offered ready for upload.

All three authors are esteemed professors in the field and they offer with Essentials of System Analysis and Design the appropriate book for any educator offering a course in systems analysis and
design. The authors state that “the writing of the book has involved thousand of hours” (p. 25). One can say that this investment was worth it.