Predictor of Brand Value
Smartphone Brand Personality

Highlights

Role of Board Certification
Celebrity Endorsement on Diffusion

Discovering Thoughts, Inventing Future

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An Insight into Product Attributes and Store Attributes for Consumer Purchasing from Emerging Retail Formats

By Dr. Ravi Kiran & Dr. Deepika Jhamb

Thapar University, India

Introduction- The retail industry in India is largely unorganized and predominantly consists of small, independent, owner-managed shops. However the retail sector in India is witnessing a huge revamping exercise as the traditional retailers are making way for new formats. These modern retail formats provide wide variety to customers and offer an ideal shopping experience with an amalgamation of product, entertainment and service, all under a single roof, (Sinha and Uniyal, 2007; Kotler, 2006; Evans, 2011). The modern Indian consumer is seeking more value in terms of improved availability and quality, pleasant shopping environment, financing option, trial rooms for clothing products, return and exchange policies and competitive prices. This has created a rapid growing opportunity for organized, modern retail formats to emerge in recent years and grow at a fast pace.

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An Insight into Product Attributes and Store Attributes for Consumer Purchasing from Emerging Retail Formats

Dr. Ravi Kiran & Dr. Deepika Jhamb

I. Introduction

The retail industry in India is largely unorganized and predominantly consists of small, independent, owner-managed shops. However, the retail sector in India is witnessing a huge revamping exercise as the traditional retailers are making way for new formats. These modern retail formats provide wide variety to customers and offer an ideal shopping experience with an amalgamation of product, entertainment and service, all under a single roof, (Sinha and Uniyal, 2007; Kotler, 2006; Evans, 2011). The modern Indian consumer is seeking more value in terms of improved availability and quality, pleasant shopping environment, financing option, trial rooms for clothing products, return and exchange policies and competitive prices. This has created a rapid growing opportunity for organized, modern retail formats to emerge in recent years and grow at a fast pace.

Age, income, occupation and education are very important demographic factors influencing consumers’ buying behavior and these have been considered in the present study. Earlier studies have examined the relationship between demographic factors and consumers’ buying preferences. Mishra (2007) is of the view that India is currently in the second phase of evolution, that is, consumer demand organized formats. Retailers need to customize retail models as per the tastes and preferences of the Indian consumer. Arshad et al. (2007), Kaur and Singh (2007), and Ghosh et al. (2010) while highlighting the prospects of retailing in India have opined that 47% of India’s population is under the age of 25 and this will further increase to 55% by 2015 and this young population will immensely contribute to the growth of the retail sector in the country.

The studies by Dash et al. (2009), CII (2008) and Jhamb and Kiran (2012) depict that growing middle class, large numbers of earning young customers and increase in spending, are several opportunities for expansion of organized retailing in India. Malls are focused towards catering to the younger population segments (Barak, 1998; Myers et al., 2008) and shopping behavior of the consumer varies according to their age (Moschis 2003). Shopping behavior of younger consumers’ would be focused towards seeking entertainment, while older consumer focuses on convenience and leisure (Myers et al., 2008). Benito et al. (2006), Aggarwal (2008) and Bhardwaj and Mukkar (2007) highlight that the emergence of organized retailing in India is due to increase in disposable income of consumers and their higher educational levels. Goyal and Aggarwal (2009) and Ali et al. (2010) opine that in India, a consuming class is emerging as a result of increasing income and education levels, and dual career families with high disposable incomes. The formats considered in the present study are:

i. Malls: Malls ranging from 60,000 sq ft to 7,00,000 sq ft, are the largest form of organized retailing today. These lend an ideal shopping experience with an amalgamation of product, service and entertainment, all under a single roof.

ii. Hypermarkets/ Supermarkets: Hypermarkets and Supermarkets are the latest formats located in or near residential high streets. Hypermarkets carry a product range varying from Foods, Home-ware, Appliances, Furniture, Sports, Toys and Clothing; and Supermarkets are large self-service outlets, catering to varied shopper needs and mainly focus on Food and Grocery and personal sales.

iii. Specialty Stores: These stores especially cater to consumers who are looking for assorted brands at one store. For instance, apparel stores, sporting goods stores, furniture stores and book stores are some of the examples of specialty stores. (Kotler, 2006; Sinha & Uniyal, 2007 and Jasola, 2007).

II. Literature Review

Literature review has been considered under the following two sections:

Attributes of Retailing

Type of Goods

a) Attributes of Retailing

Emerging retail formats like malls, specialty stores, discount stores, hyper/supermarkets, convenience stores and department stores are accepted by consumers due to their salient product and...
store attributes. This has been verified from the results of previous studies by various researchers. Erdem et al. (1999) examine the linkage between consumer values and the importance of some salient store attributes. The study indicated that the important judgments for store attributes were influenced by the set of terminal and instrumental values viewed as important by the shoppers. Thang et al. (2003) and Dalwadi et al. (2010) supported that consumers’ choice of shopping malls over traditional market stores is influenced by various factors like location, ambience, assortment, sales promotion schemes and in-store services. The facility of one stop-shop had a positive response from the consumers, who found it more convenient, time saving and satisfactory. Mittal & Mittal (2008) and Gupta et al. (2011) suggest that the retailers’ marketing strategy will have to take into account two sets of attributes: (1) loyalty drivers, and (2) shopping experience enhancers. These attributes will have to be integrated into the retail format. According to Jayaraman and Aggarwal (2001), Rajagopal (2007), Jain and Bagdare (2009) and Jacobs et al. (2010), layout, ambience, display, self service, value added services, technology based operations and many more dimensions with modern outlook and practices are the major determinants of emerging retail formats.

Herpen and Pieters (2000) point out that the attribute-approach captures consumers’ perception of assortment variety better than the product-based approach and it offers new insights into assortment variety. Popkowski et al. (2001) observed that the changing retail structure has provided the consumers with more options in the form of formats and services such as a large variety of products, quality products and less travel time, etc. Gupta (2004) and Urbonavicius et al. (2005) are of the view that consumers prefer emerging retail formats due to its significant product attributes which include product quality, assortment of merchandise, variety and product prices. According to Lather et al. (2006) and Gupta (2007) six main indicators namely, price, sales personnel, quality of merchandise, assortment of merchandise, advertising services and convenience services play a key role for retailers in choosing the type of retail formats. The study by Jackson et al. (2006) demonstrates that consumer choice between stores can be understood in terms of accessibility and convenience, whereas choice within stores involves notions of value, price, and quality.

b) Type of Goods

To better understand the organized retail scenario in India and the products preferred from emerging retail formats, goods have been classified into two types, i.e., shopping goods and convenience goods. Literature available on type of goods preferred from emerging retail formats is sparse and there are only few studies and these too are only focusing on a particular retail format. Shukla (2007) and CII (2008) described that food and grocery, health and beauty, apparel, jewellery, footwear, home furniture, household goods, personal goods and consumer durables are the fastest growing categories of organized retail. The most appropriate retail formats for various items are: food and grocery- supermarket; health and beauty care services- supermarket; clothing and apparels'-mall; entertainment- mall; watches- hypermarket; pharmaceuticals- hypermarket; mobile, accessories and services- hypermarket; and foot wares- departmental store (Goyal et al., 2009). The results of the study by Mishra (2007) show that consumers buy essentially convenience goods with lower level of risk from organized outlets and essential products with higher risk from traditional retailers. The present study covers this aspect as well.

The literature review covers the consumers’ perspective including attributes of retailing and consumer preferences and choice of store. It also focuses on product-wise choices of consumers. Based on the review, the study underlines the objectives for undertaking research in this area.

c) Objectives of the study

The present study has been undertaken with following broad objectives:

- To study the attributes that influence consumers’ preferences towards emerging retail formats.
- To study the product-wise preferences of consumers’ from emerging retail formats.

d) Hypotheses of the Study

- Store attributes may influence consumers to shop from emerging retail formats.
- Consumers may prefer to buy shopping goods from emerging retail formats.

III. Research Design and Methodology

Self-Structured questionnaire has been used for collecting the primary data from consumers of Punjab. Two types of goods have been taken up for the study. These are: Convenience Goods such as Food, Grocery, Beverages, Confectionaries, Personal Care products, Stationary and Gift items and Shopping Goods such as Clothing, Footwear, Jewellery, Furniture, Appliances and Home Furnishing. Similarly, attributes are also divided into two parts: Store Attributes such as Ambience, Location, Dressing rooms, Cleanliness of store and Good Parking facility and Product Attributes such as Quality, Reasonable price, Variety of brands, Warrantee of products and Exchange facilities.

The study selected a total of 500 consumers from the major cities of Punjab. The purpose of selecting Punjab as a sample is based on the assumption that Punjab characterizes a rich state...
with the modern cities being equipped with all kinds of emerging retail formats. Moreover Punjab is a state where people are fond of spending. According to India Today (2011), a leading magazine in India, Punjab has been adjudged the best overall state since 2003 and it has been able to retain the top position till 2011. Punjab affords the best quality of life to its residents. The present Punjab is divided into three natural regions: Majha, Doaba and Malwa.

**a) Data Collection**

For the purpose of carrying out this study both primary as well as secondary data have been used.

500 consumers have been taken for the purpose of carrying out the survey, 1200 questionnaires were distributed to the urban consumers from different regions of Punjab, i.e., Majha, Doaba and Malwa equally distributed in all regions. Out of which 500 questionnaires (180 from Malwa, 160 from Majha and 160 from Doaba region), complete in all aspects have been chosen for the study. Sources used for collecting the secondary data are Indian Retail Forum, India Stat Data Base, India Premier Data Base and other reports used to analyze overall retail scenario.

**IV. Analysis**

**a) Attributes of Emerging Retail Formats**

The first objective of the study was:

**O1:** To study the attributes that influence consumers’ preferences towards emerging retail formats.

The attributes considered in the present study include: Product attributes and Store attributes. Analysis has been done on the basis of factor analysis to understand preferred attributes for malls, hyper/supermarkets and specialty stores.

The related hypothesis is:

**H1:** Store attributes may influence consumers more than product attributes to shop from emerging retail formats.

i. **Factor analysis on Product Attributes of Malls, Hyper/Supermarkets & Specialty Stores**

The present study has used factor analysis to club the number of variables into major factors. Factor analysis has been conducted on consumer preferences of product attributes from all the retail formats (taken in the present study) like malls, hyper/supermarkets and specialty stores. With the help of factor analysis, the product attributes for all the retail formats have been emerged in two important factors as shown in Table 4.1.

Comparative view of important product attributes for different retail formats as per consumers’ perspective has been depicted through Table 4.1. If consumer is going to mall for shopping, then assortment of merchandise is very important attribute as it scores higher loading value. In case of Hyper/supermarkets, availability of products and proper display are the important attributes for consumers.
### Table 4.1: Factor Analysis on Product Attributes of Malls, Hyper/Supermarkets & Specialty Stores

<table>
<thead>
<tr>
<th>Product Attributes/Malls</th>
<th>Factor I</th>
<th>Factor II</th>
<th>Product Attributes/Hyper-supermarket</th>
<th>Factor I</th>
<th>Factor II</th>
<th>Product Attributes/Specialty Stores</th>
<th>Factor I</th>
<th>Factor II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assortment of Merchandise</td>
<td>.852</td>
<td></td>
<td>1. Availability of Products</td>
<td>.836</td>
<td></td>
<td>1. Improved Quality</td>
<td>.904</td>
<td></td>
</tr>
<tr>
<td>5. Reasonable Price</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eigen Value</td>
<td>2.867</td>
<td></td>
<td>Eigen Value</td>
<td>2.648</td>
<td></td>
<td>Eigen Value</td>
<td>3.282</td>
<td></td>
</tr>
<tr>
<td>% of variance</td>
<td>35.844</td>
<td></td>
<td>% of variance</td>
<td>33.09</td>
<td></td>
<td>% of variance</td>
<td>41.023</td>
<td></td>
</tr>
<tr>
<td>AVE</td>
<td>.551</td>
<td></td>
<td>Construct Reliability</td>
<td>.857</td>
<td>.83</td>
<td>.926</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eigen Value</td>
<td>2.246</td>
<td></td>
<td>Eigen Value</td>
<td>1.986</td>
<td></td>
<td>Eigen Value</td>
<td>2.152</td>
<td></td>
</tr>
<tr>
<td>% of variance</td>
<td>28.078</td>
<td></td>
<td>% of variance</td>
<td>24.819</td>
<td></td>
<td>% of variance</td>
<td>26.902</td>
<td></td>
</tr>
<tr>
<td>AVE</td>
<td>.596</td>
<td></td>
<td>Construct Reliability</td>
<td>.815</td>
<td>.807</td>
<td>.819</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Factor Analysis on Store Attributes of Malls, Hyper/Supermarkets & Specialty Stores

<table>
<thead>
<tr>
<th>Store Attributes/ Malls</th>
<th>Factor I</th>
<th>Factor II</th>
<th>Store Attributes/ Hyper-supermarket</th>
<th>Factor I</th>
<th>Factor II</th>
<th>Store Attributes/ Specialty Stores</th>
<th>Factor I</th>
<th>Factor II</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Children play area</td>
<td>.655</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5. In-Store Promotions</td>
<td>.695</td>
<td></td>
</tr>
<tr>
<td>Eigen Value</td>
<td>3.495</td>
<td></td>
<td>Eigen Value</td>
<td>2.708</td>
<td></td>
<td>Eigen Value</td>
<td>3.343</td>
<td></td>
</tr>
<tr>
<td>% of variance</td>
<td>43.691</td>
<td></td>
<td>% of variance</td>
<td>33.852</td>
<td></td>
<td>% of variance</td>
<td>41.785</td>
<td></td>
</tr>
<tr>
<td>Cumulative Variance</td>
<td>43.691</td>
<td></td>
<td>Cumulative Variance</td>
<td>33.852</td>
<td></td>
<td>Cumulative Variance</td>
<td>41.785</td>
<td></td>
</tr>
<tr>
<td>AVE Construct Reliability</td>
<td>.598</td>
<td></td>
<td></td>
<td>.583</td>
<td></td>
<td></td>
<td>.610</td>
<td></td>
</tr>
<tr>
<td>7. Convenient shopping hours</td>
<td>.763</td>
<td></td>
<td>6. Trained sales personnel</td>
<td></td>
<td>.664</td>
<td>7. Convenient shopping hours</td>
<td>.779</td>
<td></td>
</tr>
<tr>
<td>Eigen Value</td>
<td>1.991</td>
<td></td>
<td>Eigen Value</td>
<td>2.222</td>
<td></td>
<td>Eigen Value</td>
<td>2.230</td>
<td></td>
</tr>
<tr>
<td>% of variance</td>
<td>24.887</td>
<td></td>
<td>% of variance</td>
<td>27.780</td>
<td></td>
<td>% of variance</td>
<td>27.871</td>
<td></td>
</tr>
<tr>
<td>Cumulative Variance</td>
<td>68.578</td>
<td></td>
<td>Cumulative Variance</td>
<td>61.632</td>
<td></td>
<td>Cumulative Variance</td>
<td>69.656</td>
<td></td>
</tr>
<tr>
<td>AVE Construct Reliability</td>
<td>.533</td>
<td></td>
<td></td>
<td>.552</td>
<td></td>
<td></td>
<td>.620</td>
<td></td>
</tr>
<tr>
<td>9. Trained sales personnel</td>
<td>.769</td>
<td>.827</td>
<td>9. Convenient shopping hours</td>
<td>.830</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Factor analysis has also been applied on store attributes in order to recognize the important factors covering different attributes. It helped in classifying items into two major factors for all the retail formats. These two factors account for 68.578% of total variance in case of malls; 61.632% of total variance in case of hyper/supermarkets; and 69.656% of total variance in case of specialty stores.

For malls in factor I higher priorities have been accorded to: Parking Facility; Adequate Dressing Room; and In-Store Promotions. For Hyper/ Super markets top prioritized items are: Better Location; Parking facility; and Pleasant ambience. For Specialty stores these are: Parking Facility; Children play area; and Pleasant Ambience.

In case of Factor II for malls the dominating items are: Trained sales personnel; and Convenient shopping hours. For Hyper/ Super markets Children play area and Trained sales personnel were given preference. For specialty stores Trained sales personnel; and Convenient shopping hours had higher item loadings. On the basis of overall analysis it can be inferred that Parking Facility, Pleasant Ambience; convenient working hours; and trained sales personnel are preferred store attributes.

For malls in factor I the dominating items are: Parking Facility; Adequate Dressing Room; and In-Store Promotions. For Hyper/ Super markets top prioritized items are: Better Location; Parking facility; and Pleasant ambience. For Specialty stores these are: Parking Facility; Children play area; and Pleasant Ambience.

Results as highlighted through table 4.1 and 4.2 show that in case of malls cumulative variance explained for store attributes was 68.578, and for product attributes it was 63.921. In case of Hyper/Supermarkets cumulative variance explained for store attributes was higher (61. 632), and for product attributes (57.913). Similar trend was observed for specialty stores where cumulative variance for product attributes was 67.925 and for store attributes it was 69.656. Thus results support hypothesis $H_1$: Store attributes may influence consumers more than product attributes to shop from emerging retail formats.

After analysing store and product attributes the next objective of the study was:
O2: To study the product-wise preferences of consumers’ from emerging retail formats.

The study tried to cover two types of goods, viz. convenience goods and shopping goods to understand consumers’ preference regarding the product type. The related hypothesis is:

\[ H_2: \text{Consumers may prefer to buy shopping goods rather than convenience from emerging retail formats.} \]

Section 4.2 covers analysis of product-wise attributes. The present study covers both shopping goods as well as convenience goods.

b) Product-wise Preferences

<table>
<thead>
<tr>
<th>Shopping Goods/ Emerging retail Formats</th>
<th>Malls</th>
<th>Hyper/super markets</th>
<th>Specialty Stores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev</td>
<td>Mean</td>
</tr>
<tr>
<td>1. Clothing</td>
<td>3.15</td>
<td>1.14</td>
<td>2.82</td>
</tr>
<tr>
<td>2. Footwear</td>
<td>3.27</td>
<td>1.17</td>
<td>2.79</td>
</tr>
<tr>
<td>3. Jewellery</td>
<td>2.40</td>
<td>1.25</td>
<td>2.91</td>
</tr>
<tr>
<td>4. Bags and Baggage</td>
<td>3.33</td>
<td>1.18</td>
<td>3.61</td>
</tr>
<tr>
<td>5. Home Appliances</td>
<td>3.27</td>
<td>1.13</td>
<td>3.40</td>
</tr>
<tr>
<td>6. Home Furnishing</td>
<td>3.36</td>
<td>1.12</td>
<td>3.34</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>3.13</td>
<td>3.15</td>
<td>3.15</td>
</tr>
</tbody>
</table>

Results depicted through 4.3 highlight the consumers’ preferences of shopping goods from different retail formats like malls, hyper/supermarkets and specialty stores. It is clear from the above results that consumers’ prefer specialty stores for buying all the shopping goods as it scores higher mean value as depicted through figure 4.1.

Figure 4.1: Consumers’ Preferences of Shopping Goods across Emerging Retail Formats
Table 4.4: Consumers' Preferences of Convenience Goods across Different Retail Formats:

<table>
<thead>
<tr>
<th>Convenience Goods/ Emerging retail Formats</th>
<th>Malls</th>
<th>Hyper/super markets</th>
<th>Specialty Stores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev</td>
<td>Mean</td>
</tr>
<tr>
<td>1. Food &amp; Grocery</td>
<td>3.56</td>
<td>1.31</td>
<td>3.92</td>
</tr>
<tr>
<td>2. Personal Care Products</td>
<td>3.35</td>
<td>1.04</td>
<td>4.04</td>
</tr>
<tr>
<td>3. Toys</td>
<td>2.71</td>
<td>1.28</td>
<td>3.42</td>
</tr>
<tr>
<td>4. Magazines and Books</td>
<td>2.38</td>
<td>0.85</td>
<td>2.93</td>
</tr>
<tr>
<td>5. Stationary</td>
<td>2.48</td>
<td>0.75</td>
<td>3.46</td>
</tr>
<tr>
<td>6. Gift Items</td>
<td>3.39</td>
<td>1.01</td>
<td>3.53</td>
</tr>
<tr>
<td>7. Overall mean</td>
<td>2.98</td>
<td>3.55</td>
<td>3.60</td>
</tr>
</tbody>
</table>

From the above Table 4.4, it has been observed that consumers prefer hyper/supermarkets more for convenience goods as compared to malls and specialty stores because of higher mean scores.

Overall analysis depicts that mean score for purchasing shopping goods (3.13) from malls is more than for convenience goods (2.98). Similar trend is observed for purchasing from specialty stores, where mean score for shopping goods is (3.81) while for convenience goods it is (3.60). For hyper super markets the mean score is higher for convenience goods (3.55) as against (3.15) for shopping goods. Hence, hypothesis H2: Consumers may prefer to buy shopping goods rather than convenience from emerging retail format is partially accepted.
V. Conclusion

The three preferred Store attributes for malls are: Parking facility; adequate dressing room; and In-store promotion counselling sessions. For Hyper Super markets the three preferred Store attributes area: Better Location; Parking Facility; and Pleasant Ambience. For Specialty Stores these are: Parking Facility; Children Play Area; and Pleasant Ambience.

For Product attributes consumers of mall have shown preference for: Assortment of Merchandise; Nice Packaging; and Improved Quality. For Hyper-super markets these are: Availability of Products; Proper Display; and Nice packaging. In case of Specialty stores Improved Quality; Proper Display; and Exchange Facilities.

Overall analysis depicts that mean score for purchasing shopping goods (3.13) from malls is more than for convenience goods (2.98). Similar trend is observed for purchasing from specialty stores, where mean score for shopping goods is (3.81) while for convenience goods it is (3.60). For hyper super markets the mean score is higher for convenience goods (3.55) as against (3.15) for shopping goods. Hence, hypothesis H2: Consumers may prefer to buy shopping goods rather than convenience from emerging retail format is partially accepted.

Preferred Convenience goods from Malls are: Food & Grocery; Gift Items; and Personal care. Personal care products are most preferred convenience goods followed by Food & Grocery and Gift Items. For specialty stores the preference order is: Magazine & Books; Personal care; and Stationery.

For shopping goods from Malls highest preference has been accorded to Home Furnishing; followed by Bags & Baggage; and Home appliances. In case of hyper-super markets these include: Bags & Baggage; Home Appliances; and Home Furnishing. In case of Specialty stores the highest preference has been given to: Jewellery; Footwear; and Clothing.

VI. Acknowledgement

The research work is part of UGC Project entitled, ‘A Strategic Framework for Consumer Preferences towards Emerging Retail Formats’. The authors want to thank the authorities for providing support to pursue research in the area.

References Références Referencias

The Role of Board Certification as a Cue to Competence of Eye Care Providers: An Empirical Analysis

By Thomas J. Maronick

Towson University, United States

Abstract- Authors have long known of the need for “cues” to assess the competence and training of providers of credence services. In the case of health care providers such as eye care professionals, one such cue is whether the eye care professional is “board certified.” This study of 500 consumers who had had an eye exam either from an optometrist or an ophthalmologist examines four questions: what factors are important to a consumer seeking an eye-care provider, what is communicated by an eye-care provider’s claim of being board certified, whether there are differences in perception between board certification as applied to an optometrist and an ophthalmologist, and whether there are differences in the perceptions of optometrists who are board certified compared to those who are not board certified. The results show that board certification is an important cue for consumers in assessing the competence and expertise of optometrists and that board certification can be used to distinguish between an optometrist and an ophthalmologist. The results also show that optometrists who are board certified as seen as better trained and more competent than optometrists who are not board certified.

Keywords: credence services; health care; eye-care; board certification; optometrists.

GJMBR - E Classification : JEL Code : M31

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The Role of Board Certification as a Cue to Competence of Eye Care Providers: An Empirical Analysis

Thomas J. Maronick

Abstract: Authors have long known of the need for “cues” to assess the competence and training of providers of credence services. In the case of health care providers such as eye care professionals, one such cue is whether the eye care professional is “board certified.” This study of 500 consumers who had an eye exam either from an optometrist or an ophthalmologist examines four questions: what factors are important to a consumer seeking an eye-care provider, what is communicated by an eye-care provider’s claim of being board certified, whether there are differences in perception between board certification as applied to an optometrist and an ophthalmologist, and whether there are differences in the perceptions of optometrists who are board certified compared to those who are not board certified. The results show that board certification is an important cue for consumers in assessing the competence and expertise of optometrists and that board certification can be used to distinguish between an optometrist and an ophthalmologist. The results also show that optometrists who are board certified are seen as better trained and more competent than optometrists who are not board certified. The results also raise questions about the effectiveness of board certification as a cue for competence and expertise since most consumers believe optometrists are board certified when, in fact, board certification is voluntary and a very small percentage of optometrists licensed to practice in any state are actually board certified by either of the major certifying optometric organizations. Policy implications are also discussed, including the need for uniform standards for certification at the Federal and State level and the need for rigorous certification practices by third-party certifying organizations, including additional coursework and periodic assessment of optometrists’ performance to accurately reflect the enhanced quality and competence possessed by optometrists who are board certified.

Keywords: credence services; health care; eye-care; board certification; optometrists.

JEL Classification Codes: I [Health]; M [Business Administration]

I. Introduction

In 1973 Darby and Karni identified a distinction between experience, search, and credence goods and services. According to Darby and Karni (1973), credence goods are goods and services “sold within relationships characterized by high levels of information asymmetry between buyers and sellers, with buyers having to trust the sellers as to claims made, i.e., in situations where the seller determines the customers’ requirements.” Moreover, in the case of some services, such as health care, not only do consumers have almost no ability to assess what service is needed or the quality of the service to be performed, they may have difficulty evaluating the quality of the service even after it is received. In addition, in most cases involving health care, consumers don’t have the ability to determine how the quality of the service received compares to other health care providers of the same service. This is because, as noted by Parasuraman, Zeithami and Berry (1985), service experiences are systematically different because services are heterogeneous and, as a result, less predictable.

The question then becomes what kind of information is important to consumers as they seek to reduce the risks inherent in the purchase of these credence services? In other words, what sources of information can a consumer use as “cues” as to the competence and expertise of a health-care provider? One such “cue” is whether the health-care provider is “board certified” and, then the questions are whether the certification is important to consumers in their selection of a health-care professional and whether board certification is effective as a cue to the providers’ expertise and competence.

This study focuses on one type of health-related service, eye care, and consumers’ purchase of eye-care services from optometrists, who are state-licensed eye-care professionals but different from ophthalmologists, who are medical doctors specializing in eye care. Eye care was selected because eye care is a service with both a credence and an experience attribute, i.e., the consumers know if they see better after an eye exam but must rely on the expertise of the eye care provider to determine the need for treatment, i.e., a new or changed prescription, and because the consumer has no way of knowing whether the quality of the service received would be different if a different eye care provider had been selected.

Specifically, the research questions are:

1. What factors are important in the selection of an eye-care provider?
2. How important was board certified in a consumer’s decision to see their particular eye care provider?
3. What message is being communicated by an eye care provider who is board certified?
4. Is there a difference in perception of optometrists who are board certified eye-care providers and ophthalmologists, all of whom are board certified medical doctors specializing in eye care?
5. Are there differences in perception of an optometrist who is board certified and an optometrist who is not board certified?

The data for this analysis is a nationwide on-line survey of 500 consumers age 21 or older who had seen an eye-care professional (optometrist or ophthalmologist) in the prior three years. Board certification of optometrists or ophthalmologists was selected as a subject matter since ophthalmologists, who are medical doctors specializing in eye care, have board certification as a requirement to practice while board certification of optometrists is a relatively new phenomenon and is voluntary. Thus, consumers’ perceptions of the certification of ophthalmologists serve as a control to account for pre-existing beliefs regarding board certification in general and as it relates to board certification of optometrists.

II. Prior Research

The seminal article on credence goods and services is Darby and Karni (1973) who introduced the concept of a credence good to Nelson’s (1970) earlier classification of search and experience goods. Other authors have expanded on the Darby and Karni continuum of credence goods to include services based, for example, on the level of risk associated with services (Zeithaml & Bitner 2000; and Mitchell 1994); the level of information search with credence services (Mortimer and Pressey, 2013); and whether the services were provided in a professional-consumer or professional-business relationship (Ostrom & Iacobucci 1995). Additionally, authors have noted that professional services have characteristics similar to credence goods in that they are often customized for the individual (Lapierre, 1997), and frequently require interaction between the service provider and the consumer to create value (Hirvonen & Helander 2001).

Importantly, as noted by Mitra and Capella (1999), there is reason to believe that consumers engage in different decision-making processes while evaluating credence services because the intangibility of services makes it difficult to assess the quality of the service. Thus, services in general and medical-related services in particular are perceived as associated with greater uncertainty and higher risks and, as a result, must be taken on faith. For example, as noted by Sun et al (2012), a higher level of uncertainty leads consumers of credence services such as health-care to rely on non-alignable attributes, i.e., those that are unique to the particular provider of the service, as opposed to alignable attributes, which are discernable across service providers. Similarly, Hsieh and Hiang (2004) found that, among consumers who had a hospital visit, that “interaction quality,” defined as the trust between consumers and the health-care providers, and “functional quality,” defined as the attitudes, behaviors, and expertise of the health-care provider, were important criteria in assessing the value of credence services.

Other authors have examined the role of third-party certification for credence services, including certification of health care professionals. For example, Baldwin et al (2011) found that credentialing, including certification programs, are developed by third-party health-related organizations to “…protect the public by establishing and ensuring a minimum acceptable standard of quality and performance for professionals working in population health …” Also, Babakus et al (1991) found that “…physicians have found that consumers value certification as an indicator of achievement, competence, and quality.” Similarly, Adams et al (2002) suggests that, in the case of midwife and nurse midwives, being “certified” is an indication of competence that will forestall consumers’ “drift to low-price, low-quality alternatives” when selecting a health-care (midwife) provider. On the other hand, Grosch (2006) found “no credible link between specialty board certification and outcomes or quality of clinical care among medical doctors.”

Applying these findings to eye-care professionals, while consumers may, in varying degree, have the skill, knowledge, experience, and technical expertise to form expectations and performance assessments about some services they receive, no such skill or knowledge is likely to exist in the case of eye care. Thus, while consumers may engage in more involvement and more information search with credence services, there is limited opportunity for such search in the case of eye-care providers. This is called “asymmetry of information” (Zeithaml and Bitner 2000) because sources don’t exist to enable a consumer to determine if optometrist A is more competent, or better trained than optometrist B. Hence, the role of a cue such as board certification as a measure of credence factors such as expertise, training, and quality of care is likely to be an important factor in a consumers’ decision as to who to choose as his/her eye-care professional.

III. Methodology

The data were collected from a nationwide sample of 500 consumers drawn from an internet panel of individuals who have agreed to participate in internet surveys on a periodic basis. The universe for this study is adults age 21 or older who have seen an eye care provider (optometrist or ophthalmologist) within the prior three years. Respondents who agreed to participate in
the on-line survey were first asked a series of qualifying questions related to whether they wore contact lenses or glasses prescribed by an eye care provider and whether they had received their eye care from either an optometrist or an ophthalmologist. Respondents were then asked what factors were important in their selection of an eye-care provider, whether they believe the eye care provider they had seen, i.e., an optometrist or ophthalmologist, was “board certified,” and the importance of their eye care provider being board certified. They were also asked what it meant to be “board certified” (in general) and what a claim of being board certified says about that eye care provider and whether there are any differences in training, competence, or expertise between an optometrist who is board certified and one who is not board certified.

IV. Findings

a) Demographic Profile

As noted in Table 1, 71% of respondents were female, almost half (47%) had either a 4-Year college or graduate degree, and 58% had seen an optometrist in the past three years while a third (42%) had seen an ophthalmologist.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>135 (29%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>333 (71%)</td>
</tr>
<tr>
<td>N</td>
<td>468</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Under 21</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21-30</td>
<td>50 (1%)</td>
</tr>
<tr>
<td></td>
<td>31-40</td>
<td>76 (16%)</td>
</tr>
<tr>
<td></td>
<td>41-50</td>
<td>105 (22%)</td>
</tr>
<tr>
<td></td>
<td>51-60</td>
<td>122 (26%)</td>
</tr>
<tr>
<td></td>
<td>Over 60</td>
<td>113 (24%)</td>
</tr>
<tr>
<td>N</td>
<td>468</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>High School or less</th>
<th>74 (16%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Some College</td>
<td>111 (24%)</td>
</tr>
<tr>
<td></td>
<td>2-Yr College Grad</td>
<td>62 (13%)</td>
</tr>
<tr>
<td></td>
<td>4-Yr College Grad</td>
<td>155 (33%)</td>
</tr>
<tr>
<td></td>
<td>Grad School/Degree</td>
<td>66 (14%)</td>
</tr>
<tr>
<td>N</td>
<td>468</td>
<td></td>
</tr>
</tbody>
</table>

| Eye Care Professional Seen | Optometrist | 306 (58%) |
|                           | Ophthalmologist | 224 (42%) |
|                           | Not Sure an Optometrist or Ophthalmologist | -- |
| N                         | 530*          |           |

b) Importance of Board Certification

The first research question asks what factors are important in a consumer’s decision to see an eye-care provider. As noted in Table 2, the provider’s professional qualifications was seen as the most important, rated as “very important” or “extremely important” by 75.8% of respondents, followed by his/her reputation (71.9%), his/her personal qualities (69.9%), and board certification (68.1%). What is particularly noteworthy is that 68.1% of respondents viewed board certification as “very important” or “extremely important,” even though there was no mention of board certification in any prior question.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very/Extremely Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>His/her experience/years in practice</td>
<td>389 (58.5%)*</td>
</tr>
<tr>
<td>Professional school attended</td>
<td>235 (35.3%)</td>
</tr>
<tr>
<td>His/her past performance, including information on success/failure</td>
<td>431 (64.8%)</td>
</tr>
<tr>
<td>Information of complaints/lawsuits</td>
<td>340 (51.1%)</td>
</tr>
<tr>
<td>Personal qualities/communication skills</td>
<td>465 (69.9%)</td>
</tr>
</tbody>
</table>
c) Importance of Board Certification in Particular Eye-Care Provider Decision.

The second research question examines the specific importance of board certification in a consumer’s decision to see a particular eye-care provider. Respondents were first asked whether the eye care provider they saw was board certified. As noted in Table 3, significantly more respondents (α = 0.05) who had seen an ophthalmologist said they believed he/she was board certified, compared to 73% of those respondents who had seen an optometrist. This latter result is noteworthy since it is estimated that less than five percent of optometrists are board certified by either of the optometric associations (American Optometric Society, Inc. vs American Board of Optometry, Inc. 2011).

Table 3: Was Your Eye Care Provider Seen Board Certified?

<table>
<thead>
<tr>
<th></th>
<th>Optometrist</th>
<th>Ophthalmologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>213 (73%)**</td>
<td>183 (86%)</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Don’t know/Not sure</td>
<td>78 (27%)</td>
<td>29 (14%)</td>
</tr>
<tr>
<td>N*</td>
<td>291</td>
<td>213</td>
</tr>
</tbody>
</table>

*Limited to those who said they had seen specific provider; Margin of error = +/- 5.9%

All respondents were next asked how important, if at all, it is that their eye care provider be board certified. As noted in Table 4, 62.5% of respondents who had seen an optometrist said it was “very important” or “extremely important” that their eye care provider be board certified while 70.8% of respondents who had seen an ophthalmologist indicated it was “very important” or “extremely important” that they be board certified.

Table 4: Importance of Eye Care Provider Being Board Certified

<table>
<thead>
<tr>
<th></th>
<th>Optometrist</th>
<th>Ophthalmologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all/Very unimportant</td>
<td>9 (3.1%)</td>
<td>9 (4.2%)</td>
</tr>
<tr>
<td>Somewhat unimportant</td>
<td>8 (2.7%)</td>
<td>3 (1.4%)</td>
</tr>
<tr>
<td>Neither important or unimportant</td>
<td>23 (7.9%)</td>
<td>14 (6.6%)</td>
</tr>
<tr>
<td>Somewhat important</td>
<td>62 (21.3%)</td>
<td>31 (14.6%)</td>
</tr>
<tr>
<td>Very/Extremely important</td>
<td>182 (62.5%)</td>
<td>150 (70.8%)*</td>
</tr>
<tr>
<td>Don’t know/Not sure</td>
<td>7 (2.4%)</td>
<td>5 (2.4%)</td>
</tr>
<tr>
<td>N</td>
<td>291</td>
<td>212</td>
</tr>
</tbody>
</table>

*Margin of error = +/- 5.9%; α = ns

Respondents were then asked their reason for a belief that it was important or unimportant that their eye care provider be board certified, with their verbatim responses recorded. Among the reasons as to why being board certified was important across all respondents were such statements as “I only have one pair of eyes, I want them taken care of by a professional,” “it certifies that he has the qualifications I needed,” “I feel more assured of his/her competence if he/she is board certified,” “it gives comfort that he has the required skills to perform job,” and “it means he or she has passed a series of qualification tests from peers representing the industry.” Among, those who said board certification was unimportant, the primary reason was that being “licensed” is seen as the same as being “board certified.”

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1Computation of traditional estimates of statistical precision technically require a probability (random) sample. However, statistical estimates using non-probability samples can be used to provide some estimate of likely sampling error. Under appropriate statistical assumptions, a total sample size of 504 will produce confidence intervals for statistical estimates that are no greater than +/- 5.9% 95% of the time.
d) Perception of Board Certification

The third research question asks what message is being communicated by an eye-care provider who is board certified. In order to address this question, respondents were shown a series of statements regarding board certification of eye care providers and asked whether they believed each statement was “Definitely/Probably Correct” or not. As noted in Table 5, consistent with prior research regarding the perception of providers of credence services like health care providers, two-thirds of the respondents (64% - 68%) believe that eye-care providers who are board certified: a) are more competent than eye care providers who are not board certified, b) have completed residency training, and c) have more formal training than an eye care provider who is not board certified. Importantly, however, less than half of all eye care consumers (45.7%) believe that being board certified is necessary to provide eye care.

<table>
<thead>
<tr>
<th>Perception of Board Certification</th>
<th>Definitely Not Correct/ Probably not correct</th>
<th>Might/ Might Not</th>
<th>Definitely Correct/ Probably Correct</th>
<th>Don’t know/Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>An eye care provider must be board certified to legally provide eye care*</td>
<td>83 (17.1%)</td>
<td>56 (11.6%)</td>
<td>222 (45.7%)</td>
<td>111 (22.9%)</td>
</tr>
<tr>
<td>Board certification is a voluntary process</td>
<td>74 (15.3%)</td>
<td>67 (13.8%)</td>
<td>188 (38.8%)</td>
<td>135 (27.9%)</td>
</tr>
<tr>
<td>Board certified eye care providers are likely to be more competent than eye care providers who are not board certified</td>
<td>20 (4.3%)</td>
<td>71 (14.7%)</td>
<td>331 (68.4%)</td>
<td>62 (12.8%)</td>
</tr>
<tr>
<td>Board certification requires completion of residency training after obtaining a license</td>
<td>13 (2.7%)</td>
<td>46 (9.5%)</td>
<td>316 (65.3%)</td>
<td>109 (22.5%)</td>
</tr>
<tr>
<td>Board certified eye care providers have more formal training than eye care providers who are not board certified</td>
<td>22 (4.5%)</td>
<td>68 (14.0%)</td>
<td>314 (64.9%)</td>
<td>80 (16.6%)</td>
</tr>
</tbody>
</table>

**Limited to those who saw either optometrist or ophthalmologist and knew if he/she was board certified.

e) Differences between Perceptions of Optometrists and Ophthalmologists Regarding Board Certification.

The fourth research question sought to determine if consumers’ perceptions of eye-care providers who had seen an optometrist are different from perceptions of consumers who had seen an ophthalmologist. In order to answer this question respondents were asked whether there was a difference in the nature of the certification requirements for an optometrist to become board certified and the requirements for a medical doctor to become board certified in ophthalmology. As noted in Table 6, in all credence-factor categories raised, significantly more respondents see ophthalmologists as having higher requirements for board certification than optometrists, including 80% of respondents believing that a medical doctor must “pass a qualifying exam/test” to become board certified in ophthalmology, compared to 66% who believe an optometrist must pass a qualify exam to be board certified.
Table 6: Perception of Requirements for Board Certification

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Ophthalmologist Board Certification</th>
<th>Optometrist Board Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional formal training in a field of eye medicine/optometry</td>
<td>94 (65%)</td>
<td>84 (43%)*</td>
</tr>
<tr>
<td>Additional course/clinical work in a field of eye medicine/optometry</td>
<td>93 (65%)</td>
<td>87 (44%)*</td>
</tr>
<tr>
<td>Additional experience in practice</td>
<td>66 (46%)</td>
<td>60 (30%)*</td>
</tr>
<tr>
<td>Periodic assessment of his/her work</td>
<td>67 (47%)</td>
<td>72 (37%)*</td>
</tr>
<tr>
<td>Being an expert in a particular field of eye medicine/optometry</td>
<td>68 (47%)</td>
<td>63 (32%)*</td>
</tr>
<tr>
<td>Being a specialist in a particular field of eye medicine/optometry</td>
<td>77 (53%)</td>
<td>61 (31%)*</td>
</tr>
<tr>
<td>Pass a qualifying exam/test</td>
<td>115 (80%)</td>
<td>130 (66%)*</td>
</tr>
<tr>
<td>Don’t know/Not sure</td>
<td>10 (7%)</td>
<td>44 (22%)</td>
</tr>
<tr>
<td>Other (specify)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>N</td>
<td>144</td>
<td>197*</td>
</tr>
</tbody>
</table>

*Different α = .05 or greater; ** Includes those who said no difference

f) Perceived Differences Between Optometrists Who Are Board Certified and Optometrists Who Are Not Board Certified.

All respondents, regardless of who their eye care provider was, were asked about the fifth research question, i.e., their perceptions of optometrists who are board certified and those who are not board certified. Specifically, they were shown a series of statements and asked whether the statement was “definitely or probably true” or “definitely or probably not true.” As noted in Table 7, some of the noteworthy results are that significantly more respondents believe an optometrist who is board certified: a) is more competent than one who is not, b) has more training than one who is not, and c) is more of a specialist than one who is not. Also, over a third of respondents don’t believe that an optometrist who is board certified just paid a fee to be certified. On the other hand, being board certified is not seen as necessary to treat particular types of diseases or to write prescriptions. Moreover, when the data in Table 7 were analyzed by sub-group (i.e., optometrist v. ophthalmologist) the results show similar perceptions of board certification for optometrists and ophthalmologists, suggesting that at least some of the basis for perceptions of board certification comes from respondents’ pre-existing beliefs regarding board certification of ophthalmologists.

Table 7: Perceptions of Board Certified Optometrists

<table>
<thead>
<tr>
<th>Statement</th>
<th>Definitely not true/Probably not true</th>
<th>Might/Might Not be true</th>
<th>Probably true/Definitely true</th>
<th>Don’t know/Not sure</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>An optometrist who is board certified is more of a specialist than one who is not.*</td>
<td>51 (10.9%)</td>
<td>78 (16.7%)</td>
<td>229* (48.9%)</td>
<td>110 (23.5%)</td>
<td>468</td>
</tr>
<tr>
<td>An optometrist who is board certified is likely to be more competent than one who is not</td>
<td>25 (5.3%)</td>
<td>106 (34.2%)</td>
<td>228 (48.7%)</td>
<td>89 (19.0%)</td>
<td>468</td>
</tr>
<tr>
<td>An optometrist who is board certified is likely to have more training than one who is not</td>
<td>22 (4.7%)</td>
<td>69 (14.7%)</td>
<td>299 (63.9%)</td>
<td>78 (16.7%)</td>
<td>468</td>
</tr>
<tr>
<td>An optometrist who is board certified just paid a fee to become certified</td>
<td>178 (38.0%)</td>
<td>74 (15.8%)</td>
<td>86 (18.4%)</td>
<td>134 (27.8%)</td>
<td>468</td>
</tr>
<tr>
<td>An optometrist who is board certified is likely to be more expensive than one who is not</td>
<td>55 (11.8%)</td>
<td>126 (26.9%)</td>
<td>176 (37.6%)</td>
<td>111 (23.7%)</td>
<td>468</td>
</tr>
</tbody>
</table>
An optometrist who is board certified is more likely to accept insurance plans for payment

<table>
<thead>
<tr>
<th>An optometrist who is board certified has the same license as one who is not board certified</th>
</tr>
</thead>
<tbody>
<tr>
<td>An optometrist who is board certified can treat more diseases than one who is not</td>
</tr>
<tr>
<td>An optometrist who is board certified can write prescriptions whereas one who is not board certified cannot</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>78 (16.7%)</th>
<th>81 (17.3%)</th>
<th>170 (36.3%)</th>
<th>139 (29.7%)</th>
<th>468</th>
</tr>
</thead>
<tbody>
<tr>
<td>115 (24.6%)</td>
<td>77 (16.4%)</td>
<td>145 (31.0%)</td>
<td>131 (28.0%)</td>
<td>468</td>
<td></td>
</tr>
<tr>
<td>60 (12.8%)</td>
<td>82 (17.5%)</td>
<td>179 (38.2%)</td>
<td>127 (27.1%)</td>
<td>468</td>
<td></td>
</tr>
<tr>
<td>107 (22.9%)</td>
<td>66 (14.1%)</td>
<td>139 (29.7%)</td>
<td>156 (33.3%)</td>
<td>468</td>
<td></td>
</tr>
</tbody>
</table>

*Margin of error +/- 4.5%

V. Conclusions

Four conclusions flow from this study of consumers who have seen either an optometrist or an ophthalmologist for eye care. First, credence factors such as personal qualifications and reputation are the most important factors consumers use when selecting an eye-care provider, with “board certification” being the fourth most important factor in their decision. Second, the importance of board certification is not significantly different when the consumers’ eye-care provider was an optometrist and when he/she was an ophthalmologist. Third, board certification provides a cue as to competence and training of ophthalmologists, which are used to distinguish between the competence and training of optometrists based on whether they are board certified or not. Also, board certification can be used, at least theoretically, to distinguish between optometrists and ophthalmologists, particularly since optometrists are seen as more competent and more of an eye care specialist, based on the perception that the requirements for board certification for an ophthalmologist are higher than for an optometrist. Fourth, and most importantly, while board certification serves as a cue as to competence, it is not an effective cue that consumers can use in deciding what type of eye care provider to use, given that 73% of respondents who saw an optometrist (as opposed to an ophthalmologist) believe their eye care provider was board certified when estimates are that less than 5% of optometrists are board certified. Apparently, simply because the optometrist was licensed by the State as an eye care provider leads consumers to believe he/she is board certified.

VI. Policy Implications

First, public entities at the Federal and State level, working with professionals and academics in the field of optometry, need to establish uniform standards for board certification in order to provide an environment of trust such that the consuming public can be assured that board certification connotes competence and expertise in eye care. Second, third-party certifying organizations must establish and maintain rigorous standards for certification that include additional training and coursework, and periodic assessment of optometrists’ performance to assure that, consistent with consumer perceptions, “board certification” of an optometrist can be used by a consumer as a “cue” to an eye-care provider with the highest level of expertise, competence, and training. Finally, the results of this study clearly show the need for optometrists to distinguish themselves from ophthalmologists and articulate the benefits of board certification.

Bibliography


Moderating Factors of Celebrity Endorsement on Diffusion

By Jacob Odei Addo
Takoradi Polytechnic, Ghana

Abstract- Celebrity endorsement (CE) could not have been successful and attained such popularity had it not been some moderating factors which have facilitated its success rate of impacting on diffusion of products and services throughout societies, communities and markets all over the world. This paper focus is on findings from a research project that reflected upon the moderating factors which have facilitated the success rate of Celebrity endorsement (CE) and how it has impacted on diffusion. The study was undertaken to reflect upon the rate at which moderating factors have aided CE which have enhanced and transformed social interactions and have quickened communication within, between and among societies hence spreading information faster and easier throughout communities. CE was applied to capture Customers and Business Executives experiences on using Celebrity Endorsers which provided a basis for observation and reflection. The research adopted both quantitative and qualitative methodology. Questionnaires were used to collect the data. The study surveyed 30 Business Executives.

Keywords: moderating factors, celebrity, endorsement, diffusion.

GJMBR - E Classification : JEL Code : M30
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Keywords: moderating, factors, celebrity, endorsement, diffusion.

I. Introduction

Celebrity endorsement (CE) could not have been successful and attained such popularity had it not been some moderating factors which have facilitated the success rate of impacting on the diffusion of products and services throughout societies, communities and markets all over the world. Moderating factors such as Cost, Technology (media), Customer/Fan base and Competition were identified to be the facilitating factors that have enhanced the usage of Celebrity endorsements. The moderating factors serve as a platform which drives CE and have been used to promote it as well as to create the necessary awareness for the General Public.

As part of the change process, modern means of communication have enhanced and transformed social interactions and have quickened communication within, between and among societies hence spreading information about innovated products and services faster and easier throughout communities than earlier anticipated. Through this medium CE of products and services are hyped and conveyed to consumers within a twinkling of an eye making the information spread throughout the markets with easy speed of acceptability because of greater awareness level. Research has shown that the use of celebrities in advertisements can have a positive influence on the credibility, message recall, memory and likeability of the advertisements and finally on purchase intentions (Menon, 2001; Pompitapkan, 2003; Pringle and Binet, 2005; Roy, 2005). Earlier studies were limited to the studying of celebrity endorsers' characteristics, celebrity credibility, attractiveness, expertise, their economic worth, brand match up, the Meaning Transfer Model, source effects model, and negative information (Erfgen, 2011).

CE activity has been increasing over the past years (Biswas, Hussain, & O’Donnell, 2009). From 1984 to 1999, there was a reported eleven-fold increase in sponsorship expenditure representing $23.16 billion or 7.0% of the worldwide advertising budget (Pope, Voges & Brown 2009). Published reports indicate that utilizing celebrity endorsers in marketing communications activities have gone up remarkably. On the average, one in every five ads in UK and one in every four US advertisements feature a celebrity in today’s marketing campaigns (Hollensen & Schimmelpfennig, 2013). On a global scale also roughly every fifth ad includes a celebrity, making endorsements a widely used and popular strategy among marketers and advertisers to promote consumer products and services (Halonen-Knight & Hurmerinta, 2010).

In the United States, Edrogan, Baker, and Tagg, (2001) and Mistry, (2006) estimate that approximately 25% of all televised commercials feature celebrities, 57% in Korea (Choi, Lee and Kim, 2005); and 70% in Japan (Money, Shimp and Sakano, 2006). Similarly, in Germany, approximately 12% of all advertising campaigns employ these endorsers (Ipsos Response, 2008 as cited in Erfgen, 2011) around 40% of the youth-products advertisement featured at least one celebrity in China (Chan, 2008). The global estimates in recent years report that 14% to 19% of advertisements feature celebrities that endorsed products and brands, and the number was over twice as high in certain foreign markets (Creswell 2008). These figures support the fact...
that celebrity endorsements can bring about a more favorable rating to the advertisement and product evaluation (Dean & Biswas, 2001), as well as the financial returns for companies which use celebrity endorsement for promotion (Erdogan, et. al 2001). This indicates the fact that celebrity endorsement has assumed a wider dimension the world over because it has a greater influence on consumers and companies are reaping huge returns on their investment in CE on their brands.

It is in this vein that the current researcher agrees with other authorities in the field of using celebrities in commercials has got to a point that it has been recognized, accepted and has assumed a greater dimension as a tool to disseminate information, product and services in a market but in reality what actually facilitates or drive these endorsement deals for its success has not been assessed. The focus of this paper is to review the moderating factors that have accounted for CE success rate.

II. Literature Review

According to McCracken’s (1989), a celebrity endorser is an individual who enjoys public recognition and who uses this recognition on behalf of a consumer good by appearing with it in an advertisement. Celebrity endorsement influences the feelings of the consumers and can also influence the attitude consumers have towards the advertisement and attitude towards the brands, which can increase the purchase intentions and, consequently, increase the adoption rate. This is because celebrities appear to be gaining increasing influence in society (Choi and Berger, 2010), marketing managers try to exploit the process of meaning transfer from an endorser to products or brands involved (McCracken, 1986). Erdogan, Baker, & Tagg, (2001) made a strong case for well-known persons since they can effect consumers’ behavior and people more easily can identify themselves with these particular persons. These well-known persons are seen as the celebrities who perform varied roles in the public domain and according to Silvera & Austad, (2004) they enjoy public recognition by a large share of a certain group of people with distinctive characteristics, such as attractiveness, and trustworthiness. Practitioners continually face the difficulty of strategically executing their advertisements in order to draw consumer attention and influence consumer judgments (Illicic, & Webster 2012). Schlecht, (2003) advanced the previous definitions and tout that Celebrities are people who enjoy public recognition by a large share of a certain group of people whereas attributes like attractiveness, extraordinary lifestyle are just examples and specific common characteristics cannot be observed though it can be said that within a corresponding social group celebrities generally differ from the social norm and enjoy a high degree of public awareness.

Celebrities, as defined in Adeyanju (2013), are people who enjoy public recognition possessing such attributes as attractiveness and trustworthiness. The importance of this assertion is that celebrities are people who have excelled in their respective fields of endeavors and therefore command respect, acceptance, popularity and followership within the society. Likewise, an endorser is a person who makes a ‘testimonial’, or a written or a spoken statement extolling the virtue of a product. For Sanchez (2004), an endorser as a person who willingly supports or appears with a product or service in a way that is communicable to the public. Tom, Clark, Elmer, Grech and Massetti (1992) assert that endorsers possess expert power, referent power and legitimate power, the amount of these powers determines the extent to which behaviors of others are influenced.

Advertising is used basically to create awareness about products or services, by adopting several strategies that will enhance credibility and increase the popularity of such product and service over the other competitors (Vivian, 2009). According to Erdogan and Baker (2000), the effect and relevance of celebrity endorsement as a strategy in marketing communications has gained the attention of serious research in academic circles. Companies spend huge resources on celebrities to endorse their products or sponsored messages on television, radio, newspapers, magazines, billboards, the internet and mobile phones, in the hope that such an endorsement will induce favorable attitudes towards the brand and ultimately affect sales and profits by increasing consumers’ preference for the brand (Nam-Hyun, 2008), in addition, government and non-governmental organizations use celebrities in public messages targeted towards influencing attitudes. Anchalsingh (2013), also states that in the present era of globalized competition, every marketer has to perform the herculean task of getting the products and services into the minds of the customers and therefore has to evolve novel ways by using CE. Marketers therefore, endeavor to endorse their brands through celebrities who evoke closer consumer engagements with the brand under optimal conditions and drives purchases. These celebrities are sometimes named Brand Ambassadors. They are best portrayed as the representative of the organization, institution or corporation that sketch the product or services being produced by a company or an organization (Anchalsingh, 2013).

Celebrities like the Late Michael Jackson, Husein Bolt, Michael Jordan, Britney Spears, Tiger Woods, Tom Cruise, Christian Ronaldo, Lionel Messi and others have become symbolic icons of endorsers in today’s advertising industry. (Forbes, 2002). This shows that when an organization decides to use any of these celebrities for its marketing communications, its main focus and intention lies on exposing the brand to the
market (Kotler, Armstrong, Wung & Saunders, 2008). These Celebrities’ either show their faces at the brands events, their voices are heard on radio, images are seen on TV commercials; appear in print advertisements of Newspapers and magazines, handbills, flyers and billboards and on branded T’ shirt for example.

Marketing communications facilitate successful new product introductions and reduce the product failure rate. Successful introduction of new products requires an effective advertising campaign, widespread product distribution, and extensive couponing and sampling, (Shimps, 2007). Once the consumer becomes aware of a new product, with his/her favorite Celebrity endorsing the product or service, there is an increased probability that he will actually try the new offering because of the influence. Consumers will repeat the purchase if advertising reminds them about the brand, showing the Celebrity endorser with the brand.

Agrawal & Kamakura (1995), has asserted that approximately 20% of all television commercials feature famous people. Empirical evidence shows that both now and in the past, certain sets of products more often feature celebrity endorsements. Endorsement Insider also estimated that companies in the U.S. spent $800 million in 1998 to “acquire talent — entertainers, athletes and other high profile personalities — to spotlight in advertising, promotion and PR campaigns” (Clark & Hastmann, 2003).

Companies invest large sums of money to align their brands and themselves with endorsers who have achieved some form of celebrity status to serve as spokespersons for their brand. According to Gurel Atay, Eda, (1980) they stated that millions of dollars are spent on celebrity contracts each year by assuming that the benefits of using celebrities will exceed the costs. Accordingly, many researchers have studied the impact of celebrity endorsements on advertising effectiveness. The rationale behind such endorsements is that such endorsers are seen as influencers with both attractive and likeable qualities (Atkin& Block 1983) and companies plan with the aim that these qualities are transferred to products via marketing communications activities (Langmeyer& Walker 1991a, 1991b; Walker et al. 1992) such as Advertisements, Public Relations and Events Marketing for example.

Historically, the endorsement of products by celebrities, as a marketing practice, has a distinguished history (Seno & Lukas, 2007). In Marketing Communication, the practice is not a recent phenomenon (Kaikati, 1987) because the history goes way in time. Once Queen Charlotte began to use his products, Wedgwood capitalized on his new status by referring to himself as “potter to Her Majesty” (Dukcevich, 2004). Centuries later, celebrity usage in brand management strategies has become a familiar scenario. In markets where advertising plays vital role in influencing consumer purchases, it becomes imperative for companies to employ all possible measures to influence, motivate and inculcate desire to purchase, in the customer through an effective advertising campaign.

From a UK perspective, a report in Marketing (February 1st, 1996), indicated that advertising which used celebrities was ‘a key to gaining national headlines’ in 1995. In support of this, it is reported that advertising that uses celebrity endorsers enjoys high popularity among brand managers (e.g., Amos, Holmes & Strutton, 2008 as cited in Erfgen, 2011). Following these standpoints, the celebrity is seen as an individual “whose name has attention-getting, interest-riveting and profit generating value that stems from the high level of public attention and interest” (Gupta, 2009).

Each year, companies spend vast amounts of money to convince celebrities to endorse their products and brands (e.g., Jaiprakash, 2008; Klaus & Bailey, 2008; Lee & Thorson, 2008). Specifically, Nike as a single corporate entity spent about $339 million on endorsements and their dissemination in advertising campaigns in 2004 (Thomaselli, 2004 as cited in Erfgen, 2011). Temperley & Tangen, (2006) confirm these positions and submit that Celebrity Endorsements are a billion dollar industry today with companies signing deals with celebrities aiming to stand out from the clutter and give them a distinctive and significant position in the minds of consumers.

Studies have shown that celebrity endorsement has proven to be profitable to corporate organizations since its usage of celebrity endorsement contracts have increased the value of company’s stock share price on the Stock Exchange Market (Agrawal & Kamakura, 1995). There is empirical evidence that a number of celebrity endorsements have been very successful, Till & Busler, (1998) and Till & Shimp, (1998) indicating that it helps in disseminating products and services throughout markets.

Tantiseneepong, Gorton, & White, (2012), evaluated responses to celebrity endorsements using projective techniques and concluded that the study illustrated how projective techniques are appropriate tools for gaining greater insight into how celebrity endorsements are interpreted, and how they can be more effectively understood by both practitioners and academics. Pughazhendi & Ravindran (2012) also did a study on the influence of using celebrity endorsements on consumer buying behavior in Tamil, Nadu, India. The results indicated that strong attachment to a celebrity encourages positive attitude towards the advertisement and brand regardless of the number of endorsements.

Van der Waldt, Schleritzko & Van Zyl (2007), studied on “Paid versus unpaid celebrity endorsement in advertising: an exploration” and suggested that positive attitudes towards the celebrity endorser lead to positive attitudes towards the advertisement irrespective of the
celebrity endorser is an opinion leader for the product of service. 

Jain (2011), carried out a research analysis in India on Celebrity Endorsement and its impact on sales. The results indicated that Celebrity Endorsement has an impact on sales to a little extent and that Celebrities should not always be used to endorse Brands of various products. This indicates that what goes on beyond endorsement ought to be explored to know the level of adoption of that particular product or service.

Silveira, & Austad, (2004), researched on Factors predicting the effectiveness of celebrity endorsement advertisements in Norway. The results suggested that advertisers should put more effort not only into choosing endorsers who are well matched with products, but also into making strong arguments and believable explanations for why endorsers truly do like the products they endorse. Balakrishnan & Kumar (2011), studied “Effect of Celebrity Based Advertisements on the Purchase Attitude of Consumers towards Durable Products (A study with reference to the city of Chennai in India) and revealed that the celebrity’s convincing endorsement motivates them to materialize the purchase of durables. Modi (2007), after studying the Impact of Celebrity Endorsements on Consumers’ Purchase Intentions and Overall Brand proposes that the further studies should be done on reasons on how the media selects celebrities and how the consumers are attracted towards their attributes which in turn leads to buying behavior can also be investigated.

Natekar (2012), researched on Celebrity Endorsement: It’s Impact on Brand and concluded that consumers report higher self-brand connections for brands with images that are consistent with the image of a celebrity that they aspire to be like, particularly in the case when the images of the celebrity and the brand match. So one may ask the basis of this success rate because there might be factors that in reality, facilitates or drive these endorsement deals for its success as this has not been assessed. The focus of this paper then is to review the moderating factors of CE which have accounted for its success rate, leading to product and service acceptability by consumers.

III. RESEARCH DESIGN

In this exploratory research, the study used both primary and secondary research methods to address the information needs. To have a better conceptual framework to the study secondary research was necessary since many studies have so far been conducted on celebrity endorsement but not linked to the moderating factors of CE. Also, primary data was needed because some of the variables used in this study were different from those of the previous studies. Thus, survey was appropriate to confirm the reliability of existing variables, and to test the new variables which were used for the first time. Quantitatively, the survey method was the research instrument for the study. This was appropriate because certain information needed for the study was by nature numerical and could better be handled by quantitative research instruments. Structured questionnaire were used for the survey data collection. A 5 point-likert scale of strongly agree to strongly disagree were used to measure the magnitude of respondents responses.

Managers from both the private and public sectors constituted the respondents for the study. In all a total of twenty respondents representing 20 Corporate Organizations/Companies comprising of Marketing Managers, Sales Managers, General Managers, Public Relation Officers, (PRO’s) Corporate Affairs Managers were used in the study. This implies that these respondents are in managerial positions that are involved in decision making positions in the affairs concerning contracting Celebrities to endorse corporate brands. This requires senior management personnel to make this decision as they are in charge of resources, authority, are responsible and accountable for every action and decisions taken since this kind of decisions involves huge capital outlay. The analytical method used is the Cronbach’s alpha statistics, because it is to determine whether these moderating factors are reliable and facilitates the rate of the diffusion process, item analysis of each of these factors was conducted using it to find out their reliability and its effects on the diffusion process. This is because we can estimate the proportion of the true score variance that is captured by the factors by comparing the sum of factor variance with the variance of the sum scale.

IV. FINDINGS AND DISCUSSION

a) Respondent’s Profile

Tables 1 represent the findings of the profile of respondents which shows respondent according to gender, number of years respondent have been in the position they held in their company and the sector in which their organizations are found.
Table 1: Summary of Response on Demographic Characteristics of Respondents

<table>
<thead>
<tr>
<th>Attributes</th>
<th>N</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>13</td>
<td>65.0</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
<td>35.0</td>
<td></td>
</tr>
<tr>
<td>For how long have you been in this position of the company</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 3 years</td>
<td>3</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>4 – 6 years</td>
<td>9</td>
<td>45.0</td>
<td></td>
</tr>
<tr>
<td>7 – 9 years</td>
<td>3</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>10 and above years</td>
<td>5</td>
<td>25.0</td>
<td></td>
</tr>
<tr>
<td>Which industrial sector can your organization be found</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food and Beverages</td>
<td>10</td>
<td>50.0</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>6</td>
<td>30.0</td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td>2</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>Retail Business</td>
<td>2</td>
<td>10.0</td>
<td></td>
</tr>
</tbody>
</table>

Source: Field data, 2015.

This table shows the gender of respondents. Column one shows the number of respondents, while column three shows the percentage of male respondents to female respondents. The frequency distribution table indicates that respondents were made up of 65% males as against 35% females. Column three shows the frequency results of number of companies represented in the various sectors in the study.

V. Gender

In all a total of twenty respondents representing 20 Corporate Organizations comprise of Marketing and Sales Managers, General Managers, Public Relation Officers, (PRO’s) Corporate Affairs Managers were used in the study, 13 representing 65% are males and the rest 7 (35%) being females. This implies that more men are in managerial positions than their female counterparts involve in decision making positions or in the realm of affairs concerning contracting Celebrities to endorse their brands. This requires senior management personnel to make this decision as they are in charge of resources, authority, are responsible and accountable for every action and decisions taken since this kind of decisions involves huge capital outlay.

VI. Time with Company

From the table 1 above, it can be observed that 9 out of the 20 respondents have held their present position for 4 -6 years in their companies. Year intervals 1-3 years and 7-9 years has 3 respondents each in their companies who have held their current position representing 15% each, while the remaining 5 respondents has held their present position for 10 and more years in their respective companies. This indicates that managers in the study were well versatile, knowledgeable in endorsement issues and well experienced enough to be part of the survey and their input is of worth and contributing to the study.

VII. Sectorial Representation

The table1 above further reveals that 50% (10 out of 20) respondents classified their companies into the food and beverages production, this sector comprises the manufacturing companies. The next is the Service sector representing 30% (6 out of 20) which is also a vibrant sector that uses celebrity endorsement especially in the telecommunication companies. The remaining 10% represent the business retail sector which is mainly the Shopping Malls and Melcom. Medicinal sector is the next sector with 10%.

Moderating factors such as Cost, Technology (media), Customer/ Fan base and Competition were identified to be the facilitating factors that has enhanced the usage of Celebrity endorsements to endorse products and services that will attract lots of customers or large clientele base.

To determine whether these factors are reliable and facilitates the rate of the diffusion process, item analysis of each of these factors was conducted using the Cronbach’s alpha statistics to find out their reliability and its effects on the diffusion process. Here we can compute the variance of each factor and the variance for the sum scale (all the factors). The variance of the sum scale will be smaller than the sum of factor variances, if the factors measure the same variability between subjects (that is if they measure some true score). We can estimate the proportion of the true score variance that is captured by the factors by comparing the sum of factor variance with the variance of the sum scale.
there is no true score but only error in the factors, the variance of the sum score will be the same as the sum of variance of the individual factors, as such the Cronbach’s alpha computed will be equal to zero (\( \alpha = 0.00 \)). However, if all factors are perfectly reliable and measure the same thing (true score) then \( \alpha = 1.00 \). The more closed the alpha value is to 1.00, the more perfect and reliable the factors are.

Table 1 and 2 show the item analysis of these moderating factors Cronbach’s alpha for all factors \( \alpha = 0.6866 \)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost 1</td>
<td>2.450</td>
<td>1.146</td>
<td>0.5365</td>
<td>0.6258</td>
</tr>
<tr>
<td>Cost 2</td>
<td>1.750</td>
<td>0.550</td>
<td>0.8954</td>
<td>0.6924</td>
</tr>
<tr>
<td>Cost 3</td>
<td>1.900</td>
<td>0.718</td>
<td>0.7237</td>
<td>0.6838</td>
</tr>
<tr>
<td>Cost 4</td>
<td>1.700</td>
<td>0.657</td>
<td>0.7342</td>
<td>0.6804</td>
</tr>
<tr>
<td>Technology 1</td>
<td>1.550</td>
<td>0.510</td>
<td>0.6180</td>
<td>0.6544</td>
</tr>
<tr>
<td>Technology 2</td>
<td>1.770</td>
<td>0.470</td>
<td>0.5964</td>
<td>0.6786</td>
</tr>
<tr>
<td>Technology 3</td>
<td>2.050</td>
<td>0.605</td>
<td>0.4531</td>
<td>0.6376</td>
</tr>
<tr>
<td>Technology 4</td>
<td>1.800</td>
<td>0.616</td>
<td>0.8186</td>
<td>0.7940</td>
</tr>
<tr>
<td>Technology 5</td>
<td>2.050</td>
<td>0.718</td>
<td>0.8572</td>
<td>0.6903</td>
</tr>
<tr>
<td>Technology 6</td>
<td>2.000</td>
<td>0.887</td>
<td>0.6806</td>
<td>0.5765</td>
</tr>
</tbody>
</table>

Source: Field data, 2015.
Cronbach’s alpha for all factors \( \alpha = 0.6866 \)

VIII. Data Analysis of Moderating Factors-Cost

It could be observed from Table 1 that the overall Cronbach’s alpha for all the factors, \( \alpha = 0.6866 \), which indicates that these factors put together are reliable and impact greatly on the rate of product and service diffusion process. It shows that these factors are about 70% reliable. We can also see that alpha values for the individual factors are very close to the alpha value for all the factors put together. This shows that these factors are virtually measuring the same thing (some true score). The squared multiple correlation values obtained also suggest that there is a strong positive correlation between these factors. This indicates that the moderating factors of celebrity endorsement have a strong effect and impact on the diffusion process of products and services into societies and communities (markets).

Thus, the Cost of hiring a Celebrity to endorse the company’s brands indeed impact on diffusion process as managers complained the amount charged is too expensive for the company to bear with and serve as a barrier for companies who cannot afford to hire the services a celebrity endorser. Though its benefits are enormous the company has no choice but to pay the enticement fee to get the endorsement deal from the celebrity as other competitors are lurking around to sign him/her on. The agreed amount is most often spread out and paid in installment according to the terms and conditions of the contract as there were a lot of negotiations before both parties settle on the amount for the deal to be sealed. Normally, the company settled on a particular endorser because of affordability issues with regards to corporate resources. It must be noted that had it not been the cost factor of hiring celebrities, more companies would have engaged the services of celebrities to endorse their products and services.

Technology in this light is the various mediums or platforms that are used to communicate or carry information to recipients of messages. There is every indication that technology (Media) facilitates or helps to create the necessary platform for publicity for endorsements on products and services to be circulated into societies and communities.

However, the plurality of Radio, Television, Newspaper adverts, text messages and Brand events, Electronic billboards and billboards and the internet have been explosive in its usage to propagate Celebrity endorsements and information to the General Public.

The availability of technology (media) has been the drive for Celebrity Endorsement because it has lowered average cost per head for publicity for consumers leading to economies of scale. The vibrancy of technology has helped transformed the mode of communication within, among and between communities and societies and spread information easily and quickly around markets to the extent that the time taken for information to diffuse into communities has been shortened and quickened through the facilitation of technology.

Technology is cited as a key moderating factor for Celebrity endorsement on diffusion of products and services as it has created a platform which has enhanced the media to create the necessary awareness of endorsement deals in societies and communities as the media channels help propagate these endorsement.
of products and services into societies, because Societal integration propagates diffusion. Celebrity endorsement propagates diffusion into societies with the aid of availability of technology (the Media) which makes the provision of information in different or various languages understood by these communities. Technology availability has made it possible for messages to be delivered to everyone anywhere at anytime to understand the message in a language that is suitable to him or her. This is used in delivering messages and consumers react by trying the product or service which has been endorsed by the CE. This facilitates the spread of messages of the endorsed brand by the Celebrity into communities and societies and it is as the result of the plurality of the various media platforms which provide and spread this information around for everyone to get the message of the Celebrity endorsement of the brand. Messages on media platforms like Television, Radio, the Internet, mobile phones, both Electronic billboards and billboards and the tabloids to mention but a few has made it possible of information availability to customers hence increasing consumer literacy on products and services enhancing its diffusion process into societies.

Thus technology (media) has help propagates messages well and have help create awareness to much people within a short period of time. This has shortens the diffusion time (period) of spreading issues into societies and its propensity to facilitates communication among, between and within communities is so fluid which has transformed the facet of communication in modern times. Thus currently, moderating factors such as Information and Technology are facilitating diffusion enough into our communities so that the previous assumption made by Bass and Rogers (1967) diffusion model on time used to spread or diffuse product and services into the various adopter groups on the market is now shorten by the above mentioned factors. Therefore, a modification in terms of time taken for diffusion to take place within a market is now faster than before and can be assumed modified to be shortened per this study. Therefore these moderating factors do really facilitates the rate of the diffusion process as item analysis of each of these factors conducted using the Cronbach’s alpha statistics indicates that these factors are about 70% reliable and its effectiveness on the diffusion process.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers 1</td>
<td>2.050</td>
<td>0.759</td>
<td>0.6314</td>
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<td>Customers 2</td>
<td>1.800</td>
<td>0.523</td>
<td>0.4176</td>
<td>0.7907</td>
</tr>
<tr>
<td>Customers 3</td>
<td>1.900</td>
<td>0.553</td>
<td>0.6543</td>
<td>0.7913</td>
</tr>
<tr>
<td>Customers 4</td>
<td>1.500</td>
<td>0.513</td>
<td>0.4336</td>
<td>0.8260</td>
</tr>
<tr>
<td>Customers 5</td>
<td>2.000</td>
<td>0.858</td>
<td>0.7007</td>
<td>0.8050</td>
</tr>
<tr>
<td>Customers 6</td>
<td>1.650</td>
<td>0.745</td>
<td>0.7262</td>
<td>0.7668</td>
</tr>
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<td>Competition 1</td>
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<td>1.040</td>
<td>0.8157</td>
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</tr>
<tr>
<td>Competition 2</td>
<td>2.100</td>
<td>1.252</td>
<td>0.8630</td>
<td>0.7614</td>
</tr>
<tr>
<td>Competition 3</td>
<td>2.250</td>
<td>1.209</td>
<td>0.9156</td>
<td>0.7189</td>
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<tr>
<td>Competition 4</td>
<td>2.600</td>
<td>1.314</td>
<td>0.7262</td>
<td>0.7611</td>
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<td>Competition 5</td>
<td>2.450</td>
<td>1.191</td>
<td>0.5753</td>
<td>0.8074</td>
</tr>
</tbody>
</table>

Source: Field data, 2015.

Cronbach’s alpha for all factors $\alpha = 0.7975$

This implies that the large followers or fan base of Celebrities propels the rate of diffusion after the endorsement because majority of the followers adopt the product or services since they are persuaded to use the product or service endorsed by their icon. This is because the Celebrity endorser gives a superior relationship which enhanced or enriched the relationship with Customers, Distributors, Competitors, Media and Suppliers. Moreover, the use of Celebrity endorser helps customers to differentiate the endorsed brand from other competitor products or services for easy identification and selection. In addition Customers perceived the brand endorsed by the Celebrity as superior to other competitor products. This confirms the fact that the match- up between the large followers of a Celebrity makes it possible to select him/her. This has
also become possible because of the integration between, among and within customers (societies) far and near which has enhanced the transformation in the diffusion of products, services, ideas, information and technology throughout the world. Hence the sum alpha value, $\alpha = 0.7975$ suggests the factor variables are about 80% reliable and do impact greatly on diffusion.

Competition has been the key drive or source of facilitation of Celebrity endorsement by corporate organizations as sometimes it becomes keen and tough for them to sustain their market positions. When confronted with this situation they then resort to Celebrity endorsement, which creates or give a competitive advantage over other competitors in the industry. However, what is motivating is that our competitors are also using Celebrity endorsers to endorse their brands that compel others to do same.

This brings to the fore the nature of the competition which is so keen and intense to warrant the use of Celebrity endorser for their brands so that they can stay in the competition.

The nature of the competition indicates how information is too cluttered in the media with a limited space to advertise to distinguish one’s commercials from the other competitors hence the use of Celebrity endorser to enhance the distinction. Lastly, Celebrity endorsement leads to the achievement of companies marketing objectives in general. This is proven by the analyses of customers and competition which indicates the sum alpha value, $\alpha = 0.7975$ suggesting that the factor variables are about 80% reliable. The individual factors are also highly correlated as shown by the squared multiple correlations and therefore facilitate celebrity endorsement on diffusion of products and services into societies.

**IX. Conclusion**

The analysis conducted of the moderating factors indicate that all the variables tested in the study are reliable which proves the fact that CE have been successful owing to these facilitating factors which have propel all endorsement deals as confirm by the sum alpha value, $\alpha = 0.7975$ suggesting that the factor variables are about 80% reliable. This implies that Celebrity endorsement could not have been successful and attained such popularity had it not been the moderating factors which have facilitated the success rate of CE on diffusion of products and services throughout societies, communities and markets all over the world. Moderating factors such as Cost, Technology (media), Customer/ Fan base and Competition as identified to be the facilitating factors that has enhanced the usage of Celebrity endorsements to endorse products and services that will attract lots of customers or large clientele base. The moderating factors serve as a platform which drives CE and have been used to promote it as well as to create the necessary awareness for the General Public to know.

Thus with modern means of communication (technology), the various media networks have enhanced and transformed social interactions and have quickened communication within, between and among societies hence spreading information of innovated products and services faster and easier throughout communities than earlier anticipated. Technology in this light is the various mediums or platforms that are used to communicate or carry information to recipients of messages. There is every indication that technology (Media) facilitates or helps to create the necessary platform for publicity for endorsements on products and services to be circulated into societies and communities. However, the plurality of Radio, Television, Newspaper adverts, Text Messages and Brand Events, Electronic Billboards and Billboards and the Internet have been explosive in its usage to propagate Celebrity endorsements and provide information to the General Public. The availability of technology (media) has been the drive for Celebrity Endorsement to be successful because it has lowered average cost per head for publicity for consumers leading to economies of scale.

The vibrancy of technology has helped transformed the mode of communication within, among and between communities and societies and have spread information easily and quickly around markets to the extent that the time taken for information to diffuse into communities has been shortened and quickened through the facilitation of technology. The Cronbach’s alpha for all the factors $\alpha = 0.6866$ implies that these moderating factors have significant impact on diffusion of endorsement of products and services into societies or communities. Thus technology has been cited as a key moderating factor for Celebrity endorsement on diffusion of products and services as technology (media) has created a platform which has enhanced the media to create the necessary awareness of endorsement deals in societies and communities as the media channels help propagate these endorsement of products and services into societies, because Societal integration propagates diffusion.

Thus technology (media) has help propagates messages well and have help create awareness to much people within a short period of time. This has shortens the diffusion time (period) of spreading issues into societies and its propensity to facilitates communication among, between and within communities is so fluid which has transformed the facet of communication in modern times. Hence the normal time stipulated by the Bass and Rogers (1985) diffusion model would no longer hold as per that time. Thus currently, moderating factors such as CE, Information and Technology are facilitating diffusion enough into our communities so that the previous assumption made by Bass and Rogers (1985) diffusion model on time used to
spread or diffuse product and services into the various adopter groups on the market is now shorten by the above mentioned factors. Therefore, a modification in terms of time taken for diffusion to take place within a market is now faster than before and can be assumed modified to be shortened per this study. However, technology has enhanced the circulation of these endorsement deals into markets, societies and communities both far and near. Thus technology has been identified as a key factor in moderating CE to be very successful.

CE has been cited as one of the most expensive ventures Corporate Organization undertake as a form of investment with high expectations of returns on their investment. Companies felt that once such an amount has been invested in contracting an endorser much of the companies publicity work is done. Meanwhile its expensiveness does not limit companies in doing this but goes to all extent to secure one for their products and services. Thus, the Cost of hiring a Celebrity to endorse the company’s brands indeed impact on diffusion process as managers complained the amount charged is too expensive for the company to bear with and serve as a barrier for companies who cannot afford to hire the services of a celebrity endorser. Though its benefits are enormous the company has no choice but to pay the enticement fee to get the endorsement deal from the celebrity as other competitors are lurking around to sign him/her on. Normally, the company settled on a particular endorser because of affordability issues with regards to corporate resources.

It must be noted that had it not been the cost factor of hiring celebrities, more companies would have engaged the services of celebrities to endorse their products and services. The cost of hiring a CE is very high but it is relative to the organization concern. Depending on the size of the organization and availability of resources to the company will make companies sign CE most of the time. However, if the cost factor is to be considered then known and popular Celebrities of lesser known sports with very few followings can be contacted and signed on but to a larger extent that is not the case, because it is assumed by this study that such caliber of Celebrities can be engaged at a lower cost but they do attract the attention of advertisers. The reason being that their fan base or followers who are consumers’ of company products and services are too few to warrant such an expensive deal. Such a CE would not appeal much to the clientele base of the company. Thus before a company sign on an endorser one of the key factors considered a lot is the match-up between the Celebrity and the customers of the organization concern. Till (1998), suggested that companies must establish a link between the endorser and the brand or product. When an associative link is built between the celebrity and the brand each is then part of the association set, a group of concepts, which are meaningfully related to a target brand. Repeated pairing of the two stimuli is a key to associative learning process, because repeating the pairing of the two stimuli increases confidence that the presence of one stimulus predicts the presence of the other stimulus. Within a celebrity endorsement context, repeated pairings of the endorser, increases consumer’s recognition that the brand is a good predictor of the presence of the celebrity, strengthening the link between the brand and the celebrity (ibid.)

This implies that the large followers or fan base of Celebrities propels the rate of diffusion after the endorsement because majority of the followers adopt the product or services since they are persuaded to use the product or service endorsed by their icon. This is because the Celebrity endorser gives a superior relationship which enhanced or enriched the relationship with Customers, Distributors, Competitors, Media and Suppliers. Moreover, the use of Celebrity endorser helps customers to differentiate the endorsed brand from other competitor products or services for easy identification and selection. In addition Customers perceived the brand endorsed by the Celebrity as superior to other competitor products. This confirms the fact that the match-up between the large followers of a Celebrity makes it possible to select him/her on. This has also become possible because of the integration between, among and within customers (societies) far and near which has enhanced the transformation in the diffusion of products, services, ideas, information and technology throughout the world. Hence the sum alpha value, $\alpha = 0.7975$ suggests the factor variables are about 80% reliable and do impact greatly on diffusion. Thus celebrity endorsement, with repeated pairings of the endorser, increases consumer’s recognition that the brand is a good predictor of the presence of the celebrity, strengthening the link between Customers and the celebrity. Such repetition both strengthens the associative link for those consumer already aware of the celebrity endorsement as well increase the pool of consumers who begin to become aware of the link between the brand and the celebrity.

Competition has been the key drive or source of facilitation of Celebrity endorsement by corporate organizations as sometimes it becomes keen and tough for them to sustain their market positions and have a competitive edge. When confronted with this situation they then resort to Celebrity endorsement, which creates awareness or give a competitive advantage over other competitors in the industry. However, what is motivating is that competitors are also using Celebrity endorsers to endorse their brands that compel others to do same. This brings to the fore the nature of the competition which is so keen and intense to warrant the use of Celebrity endorser for their brands so that they can stay in the competition.
The nature of the competition indicates how information is too cluttered in the media with a limited space to advertise to distinguish ones commercials from the other competitors hence the use of Celebrity endorser to enhance the distinction. Lastly, Celebrity endorsement leads to the achievement of companies marketing objectives in general. This is proven by the analyses of competition which indicates the sum alpha value, $\alpha = 0.7975$ suggesting that the factor variables are about 80% reliable. The individual factors are also highly correlated as shown by the squared multiple correlations and therefore facilitate celebrity endorsement on diffusion of products and services in societies. Thus competition can be said to be the main driving force which compels companies and organizations to take similar actions because their competitors have taken that action by using a popular celebrity to endorse their products and services which has gained the attention of industry players and has succeeded in persuading customers to the extent of even switching to that brand. This has led to multiple endorsements in a particular industry as every company would like to sign a CE to be able to survive the competition first and secondly to have a competitive edge over other industrial players as demanded or dictates by the nature of the competition.

In examining the extent to which the moderating factors facilitate the rate of diffusion of new products and services within the social network, one can conclude that all the moderating factors like technology, competition, cost and the fan based has been proved beyond doubt to be the main driving force to provide a platform on which CE thrives on to propagate the diffusion of products and services they endorsed within, among and between societies and communities or on the market. Thus to a larger extent the moderating factors facilitate the rate of diffusion of new products and services within the social network and have made CE more successful because it creates the favorable conditions and the enabling environment for its survival, growth, expansion, success and popularity on the global scale or the market which has become the panacea for companies communications to their target audience or their customer base. Hence one can say that moderating factors like technology, cost, competition and fan base facilitates the rate of diffusion of new products and services within, between and among communities, societies and markets as well throughout the world which have made CE more successful over recent years.

**APPENDIX: RESEARCH QUESTIONNAIRE**

Dear Respondent you have been selected among 30 other Managers and Officers for a survey to investigate *Moderating Factors of Celebrity Endorsement on Diffusion*. Your honest and frank response shall be very much appreciated.

**Instruction**

Please thick [✓] one appropriate response from the sets of responses for the questions below:

**Respondents Profile**

Gender: Male [✓] Female [✓]

1) I have been a manager of this company for this time.
   1 – 3 years [✓] 4 – 6 years [ ] 7 years + [ ]

2) The company can be found in this industrial sector.
   Services [ ] Manufacturing [ ] Electronics [ ] Medicine [ ] Retail Business [ ]

3) The Cost of hiring a Celebrity is too expensive for the company to bear with.

4) The agreed amount was spread out and paid in installment according to the terms and conditions of the contract.

5) The company settled on this endorser because of affordability issues.

6) There were a lot of negotiations before we settle on the amount for this endorser.
### Technology (Media)

7) The Media helps to create the necessary awareness for the endorsement to be circulated into societies and communities.

8) The plurality of Radio, Television, Newspaper adverts, text messages and Brand events have been used to propagate Celebrity endorsement to the General Public.

9) The availability of the media has been the drive of this Celebrity Endorsement.

10) Technology has lowered average cost per head for consumers leading to economies of scale.

11) Technology has transformed mode of communication on Celebrity endorsement.

12) The time taken for diffusion to spread has quickened because of technology.

### Customers/Fan Base

13) The large followers or fan base of Celebrities enhance the rate of diffusion after endorsement.

14) The integration between, among and within customers (societies) has enhanced transformation in the diffusion of products and services, ideas, information and technology.

15) The Celebrity endorser gives a superior relationship with Customers, Distributors, Competitors and Suppliers.

16) The use of Celebrity endorser helped us to differentiate the brand from others.

17) Customers perceived the brand endorsed by the Celebrity as superior to other products.

18) The match-up between the large followers of Celebrity made us to select him/her.

### Competition

19) Celebrity endorser creates or give us competitive edge over our competitors.

20) Our competitors are also using Celebrity endorsers to endorse their products that compel us to do same.

21) The competition is so keen and intense to warrant us use Celebrity endorser.

22) Information is too cluttered in the media to distinguish your commercials from other competitors hence the use of an endorser.

23) The Celebrity endorsement led to achievement of our marketing objectives.

### References

Abstract - This study investigated the value of brand personality among undergraduate users of smartphones. The descriptive survey method was adopted using structured questionnaire to collect data from 200 undergraduates of Babcock University, Nigeria. Aaker (1997) brand personality model was modified and used as basis to find out the brand personality ascribed to smartphone brands. Of the three most used smartphone brands among the undergraduates, Samsung is perceived to have an exciting, rugged and sophisticated brand personality, Apple have an exciting, competent and sophisticated personality while Blackberry a personality of ruggedness and competence. The principle of self-congruity theory was upheld as the undergraduates’ self-personality closely matched the brand-personality of their smartphones brands. A moderate level of brand community building was established among the undergraduates.

Keywords: brand, brand personality, brand value, smartphone, brand community, self-congruity, self-personality, congruence, undergraduates, babcock university.

GJMBR - E Classification : JEL Code : M39

Strictly as per the compliance and regulations of:
Smartphone Brand Personality as a Predictor of Brand Value among Undergraduates of Babcock University

Kolade Ajilore & Margaret Solo-Anaeto

Abstract: This study investigated the value of brand personality among undergraduate users of smartphones. The descriptive survey method was adopted using structured questionnaire to collect data from 200 undergraduates of Babcock University, Nigeria. Aaker (1997) brand personality model was modified and used as basis to find out the brand personality ascribed to smartphone brands. Of the three most used smartphone brands among the undergraduates, Samsung is perceived to have an exciting, rugged and sophisticated brand personality, Apple have an exciting, competent and sophisticated personality while Blackberry a personality of ruggedness and competence. The principle of self-congruity theory was upheld as the undergraduates’ self-personality closely matched the brand-personality of their smartphones brands. A moderate level of brand community building was established among the undergraduates. It is concluded that brand personality of smartphones have remarkable influence on consumers’ perception of brand value and brand managers should place emphasis on self-congruity and brand community building as these enhances brand value.

Keywords: brand, brand personality, brand value, smartphone, brand community, self-congruity, self-personality, congruence, undergraduates, babcock university.

I. Introduction

Consumers buy products/brands for satisfaction; to meet certain personal needs. They seek three benefits from products/brands, namely, functional benefit, the augmented benefit and the psychological benefit. Analysing the benefits brands offer to customers, Ambler (1997) notes that functional benefits are intrinsic to the brand and its component products while psychological benefits are in the mind of the consumer. Consumers buy and use brand not only to satisfy functional needs but also to satisfy psychological needs. Ahmad and Thyagaraj (2015) assert that people buy or consume products not only for their functional value but also to enhance their self-concept through the symbolic meaning embedded in these products. The psychological benefits are the intangible elements that a brand offers the consumer which include acceptance within a group, increased self-worth or esteem, sophistication, happiness, risk reduction, sense of independence. In this way, brands serve as means of social communication and identification for consumers; expressing their individual nature and characteristics. In the words of Muniz and O’Guinn (2001) “in the past, people were identified by what they did, nowadays, we identify ourselves by what we consume, and the product constellations we surround ourselves with.”

Zuhroh, Hadiwidjoyo, Rofiaty and Djumahir (2014) declared that a strong brand is built based on psychological values for the customers. In modern day branding, marketers and brand managers use brand personality to differentiate their offering from competitors and offer psychological benefits. Brand personality is about attributing human traits or characters on to a brand in order for consumers to form mental or emotional connection with the brand. Brand personality delivers psychological gains to the consumers and make for ease of association with the brand (Muya, 2011; Schmitt, 2012; Klipfel, Barclay and Bockorny, 2014).

A brand’s personality is the way a brand expresses and represents itself. According to Monger (2012), brand personality associations create a composite image of a brand that is not very different from the image that we have of other people: they make us think of a brand as if it were a person. Just as a person will have certain characteristics that define his or her personality, so will a brand.

Smartphones have become major gadgets in this 21st century and it has revolutionised the mode of communication. It seem to have become an indispensable tool such that people are dependent and attached to their phones. One of the reasons for this could be because the smartphone has incorporated many other devices (such as digital camera, music and video player, calendar, calculator, game console) in itself to function as a single entity (Yufang, Bin and Qiao, 2014).

The smartphone market in Nigeria is growing with over 10 brands such as Samsung, i-Phone, Tecno, Gionee, Huawei, Infinix, Sony, LG, HTC, Nokia Lumia, BlackBerry, and Itel. An online research conducted by Ayeni (2015) found that Samsung is the most popular android smartphone in Nigeria, followed by Infinix and then Tecno. Describing the usage of smartphones in Nigeria, Arinze (2014) notes that the number of
smartphone users is projected to increase from 5.6 million to 35 million between 2013 and 2017. Young people form a major part of this figure drawing from the statement of Smith (2015) that smartphone ownership is especially high among young people. The multipurpose functions and operations of smartphone is the attraction for young people. It provides them easy access to news, information and entertainment producing feeling of happiness, connectedness and productivity.

Hence, this study is about ascertaining empirically how brand personality come to bear as an indicator of smartphone brand value among undergraduates of Babcock University (BU), Nigeria.

a) Statement of the Problem

Smartphones, which come in different designs and with different functions, are the rave of the moment, especially among young people. Authors (Clifford, 2014; Neilson, 2014) acknowledge that gender usage of smartphones differ. Males, who generally tend to be more technology savvy, use their smartphones for GPS and news gathering and overall to enhance their personality. Females on the other hand, use smartphones more for social networking, pictures taking and games. Putting this in perspective, in an academic environment where conservative Christian values of modest general appearance and behaviour is proselyted, students still buy and use smartphones which conveys extravagance and opulence. It is on this premise that this study seeks to ascertain the value(s) brand personality offer to undergraduate smartphone users.

b) Research Questions

The questions underlying this study are:
1. What personality do BU undergraduates perceive of the brands of smartphone they use?
2. What is the level of brand personality and self-personality congruence among BU undergraduates smartphones users?
3. What is the level of brand community building among BU undergraduates smartphone users?

c) Hypotheses

H1: There is significant relationship between self-personality/image of BU undergraduate smartphone users and smartphone brand personality.
H2: Smartphone brand personalities significantly influence brand community building among BU undergraduates.

II. Literature Review

a) Brand and Brand Personality

A brand can be described as a bundle of satisfaction for consumers. It refers to all the things about a product that makes it different from other offerings in the same product category.
Roustasekehravani, Hamid, Haghkhah and Pooladireishahri (2014) posits that:

Brand can be known as promise of bundles of attributes, which a person buys and leads to satisfaction. Those attributes, which create a brand, might be illusory or real, emotional or rational, invisible and tangible.

Brands are known as valuable and create long term relationship with customers. Studies demonstrate that customers that have strong relationship with a certain brand would spread no negative information about that specific brand and have positive attitude for brand. Another importance is that brands build personal bond (with its consumers) which makes a brand able to build loyalty (Zuhroh, Hadiwidjoyo, Rofiaty and Djamahir, 2014).

Brand personality refers to the appealing and attractive human trait(s) that is associated with a brand. It is an added value to a brand that strengthens the connection between the consumer and the brand. According to Roustasekehravani, Hamid, Haghkhah and Pooladireishahri (2014), brand personality contributes to better recognition of, creating and keeping relationships among customers and brands.

Personalities that consumers perceive from brand include young, exciting, adventurous, tough, sophisticated, intelligent, competent, reliable, traditional and others. Klipfel, Barclay and Bockorny (2014) assert that these personality are formed through communication of any kind between the brand and the consumer. There is usually nothing intrinsic to a brand that makes it, for example, young, exciting, or traditional; instead these qualities are formed through the direct or indirect contact a consumer has with a brand, including the product-user image.

Branding personality impacts consumers’ relationship to a brand as well as strength of the relationship. Attributes of the brand, such as appearance, price, quality, may change but the brand personality is the aspect of the brand that is consistent. Brand personality can lead to brand preference which ultimately may lead to loyalty, which is needed to ward off competition.

b) Aaker (1997) Dimensions of Brand Personality

Jennifer L Aaker in 1997 reported the first systematic study on the brand personality. She constructed a five-dimensional framework for describing and measuring the personality of a given brand. The five dimensions of personality outlined are sincerity, excitement, competence, sophistication and ruggedness. She further identified 15 personality traits that best describe the five dimensions to include reliable, honest, daring, tough, outdoorsy, charming, successful, wholesome. This is presented in Figure 1.


c) Self Personality/Image/Concept

Self-personality/image/concept are used interchangeably to refer to the totality of an individual’s thoughts and feelings with reference to himself. Self-image is what a person believes and feels about himself/herself which is either positive or negative. Self image is composed of two parts: What a person thinks about himself and what he feels (Downing, 2008, McLeod, 2008). Most of an individual’s self image comes in early years of childhood from having close intimate relationships with people that love us and in whom we trust. But the self-image is shaped as the individual grows, experience life and engage in interactions with others.

Self concept or image has four components – actual self-image, ideal self-image, social self-image, and ideal social self-image. The actual self-image is an individual’s view of himself. It is an answer to the question- who am I? The ideal self-image mirrors how the individual would like to be seen. It answers the
question: what will you like to be? The social self-image, on the other hand, refers to the beliefs one has about how he or she is viewed by others, and ideal social self-image denotes the image one aspires others to have of him or herself (Klipfel, Barclay and Bockorny, 2014).

Consumers’ self-personality/image/concept affect their perception and consumption of brands. Consumers sometimes used brands to express and enhance their self-personality. Escalas and Bettman, (2003) describe this relationship thus:

Consumers construct themselves and present themselves to others through their brand choices based on the congruency between brand image and self-image. As a result of this process, the set of brand associations is linked to the consumer’s mental representation of self. Thus, the meaning and value of a brand is not just its ability to express the self but its role in helping consumers create and build their self-identities by forming connections to brands.

d) Brand Personality and Self-Personality Congruence

Brand Personality and Self-personality congruence describes the consistency or similarity in the way consumers perceive themselves and the way they perceive brands. Consumers purchase and use brands that are congruent with their self-personality. As Park and Lee (2005) mentioned, consumers use products/brands as a symbol and they prefer brands with images or personalities that are congruent with their self-image or brand personality. Kim, Lee, and Ulgado (2005) proved that brand personality/self-concept congruity kindles such emotions as love, pride, and joy, and ultimately fosters a long-term consumer-brand relationship.

Identifying the reason consumers seek out congruence between product-user image and self-concept, Klipfel, Barclay and Bockorny (2014) posit that it is fulfillment of certain needs: self-esteem, self-consistency, and social approval. The self-esteem motive denotes the tendency for individuals to enhance self-concept by being discriminatory in choosing experiences, and the self-consistency motive explains the tendency for behaviour consistent with actual self-image. Social consistency needs are met by congruence between product-user image and the social self-image.

III. BRAND COMMUNITY

Brand community is a concept that explains relationship among consumers of similar brands. The term, brand community, coined by Albert Muniz and Thomas O’Guinn in 2001 is defined as, “a specialized, non-geographically bound community, based on a structured set of social relations among admirers of a brand” (Muniz and O’Guinn, 2001).

Simply put, brand community is a grouping of brand users based on their love and association with a particular brand. When consumers buy and use a brand, they form a community whether consciously or subconsciously. Their voluntary membership is created because the brand possess values or traits they identify with.

The pulling factor for the brand community is the brand used; its personality, value and representations.

Brand community serve as forum where users of similar brand meet, discuss the brands, share experiences about the brand and get in touch with one another. It gives consumers the added value of family; a sense of belonging and acceptance. Members of a brand community share three characteristics: consciousness of a kind, shared ritual and tradition, sense moral responsibility (Kalman, 2009; Dale, 2007).

Explaining the rise of brand communities, Muniz and O’Guinn (2001) indicate that breakdown of traditional forms of community, coupled with the increase of individualization and symbolic consumption, inevitably leads to the emergence of new forms of community that are vital to our current increasingly materialistic capitalist society: brand communities.

According to Roberts (2013) brand community benefit marketers in that it gives them a lens through which they can view their product and see how best to communicate its promise of benefit. It clarifies the points of interest, core values, and values that attract community members and keep them in the fold.

Marketers strengthen brand communities, mainly through expediting on customer experiences and capitalizing on the consumer-brand and consumer-consumer relationships. Physical events like rallies, trainings, product testing, and consumer research as well as online and social media tools are strategies to build and nurture brand community. Social media tools especially enhance brand community building. Brands have Facebook pages, Instagram accounts, and Blogs that serve as meeting points for the brand users.

Kalman (2009) asserts that there are two major implications of the power of brand communities, which are:

1. As visible consumers of a brand, brand community members can become its best promoter. Brand community members propel the brand message (and their enthusiasm for it) into the market and also act as the conduit for feedback from the market. Through surveys, focus groups, and analytics (of content interests), brand community members can become the source of valuable customer research.

2. A brand community represents a cohesive group and so marketers can develop membership-oriented programs that deepen customer relationships and involvement with the brand. The brand marketer can community membership with
integrated communications programs that include magazines, Web sites and blogs, email news, e-books, live events, and social media to amplify the brand’s promotional campaigns while lowering costs. For third-party marketers, brand communities represent a new way to find active buyers. By viewing brand communities as a true demographic indicator (analogous to gender, age, or income), third-party marketers can participate in the brand owner’s communications programs to reach active buyers at costs below traditional media.

IV. THEORETICAL FRAMEWORK

This study is anchored on two theories - symbolic interactionism theory and self-congruity theory.

a) Symbolic Interactionism Theory

The thrust of this theory is that individuals act towards things based on the meaning these things/objects have for them, and these meanings are derived from social interaction and modified through interpretation. The theory was presented by Herbert Blumer in 1969 with three propositions:

1. Humans act towards things on the basis of the meaning they ascribe to those things.
2. The meaning of such things is derived from or arises out of, the social interaction that one has with others in society;
3. These meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he or she encounters (West and Turner, 2010).

From the theory, things in the physical world are symbolic; that is individuals attach meaning(s) to them and these meanings are the basis of relating with other people in society.

The concept of brand personality draws strength from this theory in that brands carry symbolic meanings and consumers draw on them to satisfy their psychological needs. Consumers draw meanings for brands (including brand personality) from marketer’s positioning efforts or through interactional experience. The meanings brands convey (in this case, personality) make the product more realistic to consumers and easier for them to bond with the brand. The implication of this theory for this study is that marketers need to uncover the personalities young people perceive of smartphone brands and how this influences their behaviour towards the brand.

b) Self-Congruity Theory

Self-congruity explains the extent to which brand personality and self-personality of a consumer are compatible. It refers to the match between a product’s value-expressive attributes (brand personality) and the consumer’s self-concept. The self-congruity theory is based on the assumption that consumers prefer brands they associate with a set of personality traits congruent with their own (Sirgy and Johar, 1999; Kim, Lee, and Ulgado, 2005; Boksberger, Dolnicar, Laesser, and Randle, 2011; Klipfel, Barclay and Bockorn, 2014). Consumers typically express themselves through brand which is based on their self-image and self-concept.

The self-congruity theory postulates that the more similar the two concepts (self-personality and brand personality), the higher the preference for that brand, because its symbolic characteristics reinforce and validate the individual’s self-perception.

Explaining the theory further, Sirgy (1992) in Zuhroh, Hadiwidjoyo, Rofiaty and Djumahir, (2014) stated that an individual chooses to purchase product or service which has congruent image with his image; in other words, there is a congruity between individual’s self-concept perception on brand/product and individual’s perception on himself.

The theory comes to bear on this study as it gives credence to the fact that the way individuals perceive themselves relate to the kinds of brands they purchase and use. One of the objectives of this study is to find out the extent of self-congruity among smartphone users of Babcock University. It is the light of this that Klipfel, Barclay and Bockorn (2014) espoused that with deep psychological knowledge of target consumers, marketers can develop a congruence model for their specific target market that can more accurately position their products in a way that appeals to their customers as well as choose the product image attributes (self, ideal, social, or ideal social) that create the greatest level of congruity.

c) Empirical Review on Brand Personality and Self-Congruity

A study on self congruity, carried out by Boksberger, Dolnicar, Laesser, and Randle (2011) to find out the extent of self-congruity theory is applicable in the tourism industry in Switzerland. They sought to find out the relationship between how travellers perceive themselves and the way they perceive travel destinations they have been to. The participants who were Swiss travellers were asked to describe the personality of the destinations travelled as well as their self-personality. The congruity was then calculated using the absolute difference between self-personality and destination personality. The findings indicated that more than half of all trips (53 per cent) can be considered as self-congruent, i.e. people travelled to destinations that fit the description of their self-personality. However, the attempt to identify factors that explain when self-congruity holds and when it does not, was not really successful. The conclusion of the study was that there is evidence for the existence of self-congruity in tourism.

Conducting a study on Brand Personality, Self-Congruity and the Consumer-Brand Relationship, Kim, Lee, and Ulgado (2005) examined the processes by
which the consumer-brand fit determines consumer-brand relationship. Using a sample of 450 college students and residents of metropolitan areas in China, they were asked describe their self-personality and also give personality to any brand of their choice in different product categories - cell phones, digital camera, clothing, cosmetics, jewellery, food/beverage, stationeries and restaurant. The results of this study show that congruity between brand personality and consumer self-concept kindles such emotions as love, pride, and joy, and ultimately fosters a long-term consumer-brand relationship through brand attachment or self-esteem-building process.

V. Research Methodology

The population of this study was all 400 level undergraduate students of Babcock University, which is given as 1500 students (BU Registry). Saunders, Lewis and Thornhill (2009) formula was used to determine a sample size of 200 students drawn from various schools and departments in the university. The study purposively sampled the 400 level students based on their probable wide experience with smartphones as well as their relative maturity and ability to give better judgment of their self-personality.

The instrument used was a questionnaire measuring the constructs with a Likert scale ranging from Strongly Agree = 5 to Strongly Disagree (SD) =1 and its reliability was ascertained with the Cronbach Alpha Test at 0.825. In assessing perception of brand personality, the Aaker Brand Personality Model (1997) which identified Sincerity, Excitement, Sophistication, Competence, and Ruggedness as the five dimensions of a brand personality was adopted and modified. In the modified instrument, only two personality traits under each dimension was tested. The scale thus had: conservative and responsible to measure Sincerity, Fashionable and Innovative for Excitement; Social Class/Status and Sexy/Feminine to measure Sophistication; Intelligent and Confidence for Competence, and Masculine and Tough to measure Ruggedness. The researcher developed items in the instrument to measure congruence of brand personality and self-personality and brand community. 220 copies of the questionnaire were administered to the population sample by the researcher with the help of two research assistants.

The Statistical Product and Service Solutions (SPSS) version 21 was used to analyse data obtained. Cross tabulation, frequency table and bar charts were used to present the data and for the test of research hypotheses, T-test, Pearson product moment correlation and linear regression were employed.

VI. Results and Discussion of Findings

Out of the 220 copies of questionnaire administered, 200 were returned useful thus yielding a 90% return rate. Gender distribution of respondents reveal that females were the major participants in the study. The result show 135 (68%) of the respondents as female while male accounted for 65 (32.5%) of the respondents.

Research Question One: What personalities do Babcock Undergraduates perceive of Smartphone brands?

Table 1: Smartphone Brands used by Babcock University Undergraduates

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samsung</td>
<td>51</td>
<td>25.5</td>
</tr>
<tr>
<td>Apple (i-Phone)</td>
<td>37</td>
<td>18.5</td>
</tr>
<tr>
<td>Tecno</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>Gionee</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Huawei</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>Infinix</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>Sony</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>LG</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>HTC</td>
<td>9</td>
<td>4.5</td>
</tr>
<tr>
<td>Nokia Lumia</td>
<td>10</td>
<td>5.0</td>
</tr>
<tr>
<td>Blackberry</td>
<td>22</td>
<td>11.0</td>
</tr>
<tr>
<td>Itel</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Lenovo</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
Table 1 reveals the three popular smartphone brands among Babcock University undergraduates to be Samsung (used by 25.5% of the respondents), followed by Apple (used by 18.5% of the respondents) and Blackberry (used by 11% of the respondents). This corroborates the findings of Ayeni (2015) that Samsung is the most popular smartphone brand in Nigeria. It goes to say from this study that among university undergraduates, Samsung is the preferred smartphone brand.

Table 2: Cross Tabulation of Brands of Smartphone and Brand Personality

<table>
<thead>
<tr>
<th>Smartphone Brand</th>
<th>Social Class</th>
<th>Sexy / Feminine</th>
<th>Conservative</th>
<th>Responsible</th>
<th>Trendy / Innovative</th>
<th>Flaxy / In Design</th>
<th>Masculine</th>
<th>Tough</th>
<th>Intelligent</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samsung</td>
<td>High</td>
<td>26.4%</td>
<td>28.5%</td>
<td>27.9%</td>
<td>28.4%</td>
<td>23.1%</td>
<td>17.9%</td>
<td>26.4%</td>
<td>24.5%</td>
<td>26.3%</td>
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<tr>
<td></td>
<td>Low</td>
<td>22.0%</td>
<td>22.0%</td>
<td>20.9%</td>
<td>20.6%</td>
<td>20.0%</td>
<td>15.5%</td>
<td>20.2%</td>
<td>13.8%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Iphone</td>
<td>High</td>
<td>4.7%</td>
<td>7.7%</td>
<td>5.1%</td>
<td>5.0%</td>
<td>3.4%</td>
<td>3.8%</td>
<td>7.1%</td>
<td>5.3%</td>
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<tr>
<td></td>
<td>Low</td>
<td>8.4%</td>
<td>10.4%</td>
<td>10.9%</td>
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<td>Tecno</td>
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<td>Huawei</td>
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<tr>
<td>Nokia Lumia</td>
<td>High</td>
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<td>4.7%</td>
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<tr>
<td>Blackberry</td>
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<td>LG</td>
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<td>HTC</td>
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<td>3.2%</td>
<td>3.2%</td>
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</table>

For i-phone users, the brand is perceived as being trendy (28.7% of its users), masculine (28.7%) and conveying high social status/class. Samsung users do not see it as a phone one with a down to earth personality (27.9%). Putting this finding on the Aaker five dimension of brand personality model, Samsung is perceived as first as an exciting personality, then as rugged and as sophisticated personality.

Table 2 shows smartphone brands and the personalities perceived by young people. From the cross tabulation of smartphone brands and personality traits, Samsung is seen as innovative and trendy (28.7% of its users), masculine (28.7%) and conveying high social status/class. Samsung users do not see it as a phone one with a down to earth personality (27.9%). On the Aaker scale, it means that Samsung has more of an exciting personality, followed by competent and sophisticated. 21% of its users note that i-phone does not have a rugged personality. This is true as users complain that the phone breaks easily.

For the third most popular smartphone brand among BU undergraduates, Blackberry, its users see it as tough (12.5%), exuding confidence (11.5%) and intelligent (11.4%). On the Aaker scale, Blackberry exudes a rugged and competent personality. Its users do not see the brand as conveying high social class, being feminine/sexy or innovative.

On the Aaker scale, Tecno is seen as having a sincere, exciting and competent personality. Infinix is seen to be sincere and competent; Sony is seen as rugged, sincere and competent; Nokia Lumia is seen as rugged and competent; LG is seen as rugged, competent and sophisticated; HTC is seen as sincere, rugged and exciting; Huawei is seen as rugged, exciting and competent; Gionee is seen as exciting, sophisticated and rugged and Itel is seen as rugged, sincere and sophisticated.

These findings make meaning of the symbolic interactionism theory of Blumer (1969) which submits that people ascribe meanings to things/objects and these meanings come to play in interaction with other people. Young people perceive different personality (meanings) of their smartphone brand and by using the brands in their social interaction, they express and share the meaning.
Research Question Two: How congruent is self-personality/image and brand personality of BU undergraduate Smartphone users?

![Brand Personality vs Self-Personality](image)

**Figure 3**: Level of Congruence in Brand Personality and Self-Personality of Smartphone Users

University smartphone users matched the brand personality of their smartphone brands.

Research question 2 sought to find out areas of similarity in brand-personality and self-personality of Babcock university smartphone users. Findings reveal that two personality traits were congruent in self-personality of the respondents and smartphone brand personality.

The personality trait of being innovative and trendy was highly consistent in smartphone brand personality and self-personality of BU undergraduates (71.5% ; 77%). That is, students who see themselves as innovative and trendy also use smartphone brands that project innovativeness and up to date.

The second point of congruence in brand personality and self-personality/image was belonging to a high class/status. 67.5 % of respondents described themselves as belonging to of high status/class and 74% described their smartphone personality as one that depicts high status/class.

In sum, majority of the respondents (62.5%) affirm that their self personality comes to play in the brand of smartphones they use. While, 61.5% of the respondents stated that the personality of a smartphone brand influences their usage or not. This is corroborated by Park and Lee (2005) and Hawkins et al. (2001) in Roustasekehraeni, Hamid, Haghkhah and Pooladireishahri, (2014) that consumers buy a product which has matched personalities to their own personalities.

The assertions of the self congruity theory is evident here as the self-personality given by Babcock
Research Question Three: What is the level of Brand Community building among BU undergraduates?

Figure 4 reveals that brand community building is evident among BU undergraduate smartphone users and it is of a moderate level. This strengthens the assertion of Dale (2007) and Kalman (2009) that consumers’ love and shared sense of value for a brand leads to community building on different levels. From the study, brand community building among the undergraduates is actualized by feeling a sense of connectedness with other people who use similar brand of smartphone (53 % of the respondents attested to this); belonging to online groups created by their smartphone brands (59% of the respondents agreed); and participating in events organized by their smartphone brand (58.5% of the respondents were affirmative).

Figure 4 shows that belonging to online groups of smartphone brands is indicated as the major means of engaging in brand community by BU smartphone users. This actually sheds light on the nature of respondents who are young people. They are technology savvy and are heavy users of online and social media platforms.

VII. Test of Hypotheses

a) Decision Rule

The pre-set level of significance for this study is 0.05. The hypothesis assumes that there is a relationship or effect exists between the variables under consideration. If the P-value (that is, the significance or the probability value) exceeds the pre-set level of significance (which is 0.05), the hypothesis will be rejected; but if the P-value is less than or equal to 0.05, then the hypothesis will be accepted.

Hypothesis One: There is a significant relationship in the between self-personality of BU undergraduate smartphone users and smartphone brand personality.

Table 4 : Correlation Analysis between Self-Personality/Image and Brand Personality of Smartphones

<table>
<thead>
<tr>
<th>Smartphone Brand Personality</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Personality/Image</td>
<td>0.309**</td>
<td>0.000</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Personality/Image</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.309**</td>
<td>0.000</td>
<td>194</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 indicates that there is a moderately positive significant relationship between Self-Personality/Image of BU undergraduate smartphone users and Smartphone brand Personality (β = 0.309, p<0.05). This suggests that an upward change in Self-Personality/Image of users will lead to a proportional increase in smartphone Brand Personality. The implication of this is that users see the reflection of their
personalities in their smartphones brands, which suggests that marketers should undertake extensive customer analysis before designing their smartphone brands in order to capture self personality of consumers in their major markets and reflect this in their positioning efforts. Therefore, the hypothesis is accepted.

**Hypothesis Two:** Smartphone brand personality significantly influence brand community building among BU undergraduates.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.761</td>
<td>0.443</td>
<td>6.238</td>
<td>0.000</td>
</tr>
<tr>
<td>Smartphone Brand Personality</td>
<td>0.147</td>
<td>0.030</td>
<td>0.327</td>
<td>4.811</td>
</tr>
</tbody>
</table>

From Table 5, smartphone brand personality has a significant influence on brand community building (p<0.05). The model in Table 3 further shows that Smartphone brand personality has a moderately positive significant influence on brand community building (β = 0.327); which suggests that an increase in brand personality leads to a proportional increase in brand community building; vice versa. Furthermore, the linear regression model could predict 10.7% of variation on brand community building which means that 89.3% of factors that could predict brand community building have not been considered in the context of this study. The implication of this analysis is that smartphone brand managers should project personalities unto their products so that it could serve as bonding agent among smartphone users which ultimately enhances brand loyalty. Consequently, the hypothesis is accepted.

**VIII. Conclusions and Recommendations**

Marketers strive for long term customer relationship and brand loyalty, and this study has revealed that brand personality can contribute to this through reinforcing consumers’ self personality (i.e. creating self-congruity) and brand community building.

For young people, the personality of being trendy and innovativeness as well as being of a high social class/status matter to them. This conclusion is drawn from the findings of this study, as it was only these two personality traits that self-congruity was evident. What this means is that marketers should always reflect these personality traits in their smartphone brand as it is a pulling factor for young people.

Brand managers and marketers should undertake extensive customer analysis before developing personalities for their smartphone brands in order to capture self-personality of consumers in their major markets and reflect this in their positioning efforts. This study confirmed that brand personality serves as a bonding agent among consumer, leading to brand community building among users. Marketers should therefore take seriously the concept of brand community building and maximize it to the advantage of their brands.

It is suggested that further studies be carried out to identify other factors that can enhance brand community building among other categories of smartphone users and in other product categories.

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Choice of key words is first tool of tips to write research paper. Research paper writing is an art. A few tips for deciding as strategically as possible about keyword search:
• One should start brainstorming lists of possible keywords before even begin searching. Think about the most important concepts related to research work. Ask, “What words would a source have to include to be truly valuable in a research paper?” Then consider synonyms for the important words.

• It may take the discovery of only one relevant paper to steer in the right keyword direction because in most databases, the keywords under which a research paper is abstracted are listed with the paper.

• One should avoid outdated words.

Keywords are the key that opens a door to research work sources. Keyword searching is an art in which researcher’s skills are bound to improve with experience and time.

Numerical Methods: Numerical methods used should be clear and, where appropriate, supported by references.

Acknowledgements: Please make these as concise as possible.

References

References follow the Harvard scheme of referencing. References in the text should cite the authors’ names followed by the time of their publication, unless there are three or more authors when only the first author’s name is quoted followed by et al. unpublished work has to be cited where necessary, and only in the text. Copies of references in press in other journals have to be supplied with submitted typescripts. It is necessary that all citations and references be carefully checked before submission, as mistakes or omissions will cause delays.

References to information on the World Wide Web can be given, but only if the information is available without charge to readers on an official site. Wikipedia and similar websites are not allowed where anyone can change the information. Authors will be asked to make available electronic copies of the cited information for inclusion on the Global Journals Inc. (US) homepage at the judgment of the Editorial Board.

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Tables, Figures and Figure Legends

Tables: Tables should be few in number, cautiously designed, uncrowned, and include only essential data. Each must have an Arabic number, e.g. Table 4, a self-explanatory caption and be on a separate sheet. Vertical lines should not be used.

Figures: Figures are supposed to be submitted as separate files. Always take in a citation in the text for each figure using Arabic numbers, e.g. Fig. 4. Artwork must be submitted online in electronic form by e-mailing them.

Preparation of Electronic Figures for Publication

Even though low quality images are sufficient for review purposes, print publication requires high quality images to prevent the final product being blurred or fuzzy. Submit (or e-mail) EPS (line art) or TIFF (halftone/photographs) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented software. Scans (TIFF only) should have a resolution of at least 350 dpi (halftone) or 700 to 1100 dpi (line drawings) in relation to the imitation size. Please give the data for figures in black and white or submit a Color Work Agreement Form. EPS files must be saved with fonts embedded (and with a TIFF preview, if possible).

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Figure Legends: Self-explanatory legends of all figures should be incorporated separately under the heading 'Legends to Figures'. In the full-text online edition of the journal, figure legends may possibly be truncated in abbreviated links to the full screen version. Therefore, the first 100 characters of any legend should notify the reader about the key aspects of the figure.

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TECHNIQUES FOR WRITING A GOOD QUALITY RESEARCH PAPER:

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4. **Make blueprints of paper:** The outline is the plan or framework that will help you to arrange your thoughts. It will make your paper logical. But remember that all points of your outline must be related to the topic you have chosen.

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15. Use of direct quotes: When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.

16. Use proper verb tense: Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

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21. Arrangement of information: Each section of the main body should start with an opening sentence and there should be a changeover at the end of the section. Give only valid and powerful arguments to your topic. You may also maintain your arguments with records.

22. Never start in last minute: Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

23. Multitasking in research is not good: Doing several things at the same time proves bad habit in case of research activity. Research is an area, where everything has a particular time slot. Divide your research work in parts and do particular part in particular time slot.

24. Never copy others’ work: Never copy others’ work and give it your name because if evaluator has seen it anywhere you will be in trouble.

25. Take proper rest and food: No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

26. Go for seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.
27. Refresh your mind after intervals: Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

28. Make colleagues: Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

30. Think and then print: When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

31. Adding unnecessary information: Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

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33. Report concluded results: Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

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- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
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Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

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**General style:**

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To make a paper clear

· Adhere to recommended page limits

Mistakes to evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

· Use standard writing style including articles ("a", "the," etc.)

· Keep on paying attention on the research topic of the paper

· Use paragraphs to split each significant point (excluding for the abstract)

· Align the primary line of each section

· Present your points in sound order

· Use present tense to report well accepted

· Use past tense to describe specific results

· Shun familiar wording, don’t address the reviewer directly, and don’t use slang, slang language, or superlatives

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Choose a revealing title. It should be short. It should not have non-standard acronyms or abbreviations. It should not exceed two printed lines. It should include the name(s) and address(es) of all authors.
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- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including definite statistics - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
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- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

Approach:

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• Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
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• If use of a definite type of tools.
• Materials may be reported in a part section or else they may be recognized along with your measures.

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• To be succinct, present methods under headings dedicated to specific dealings or groups of measures
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• If well known procedures were used, account the procedure by name, possibly with reference, and that’s all.

Approach:

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• Leave out information that is immaterial to a third party.

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The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently. You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.
Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
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- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

What to stay away from

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- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
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- Never confuse figures with tables - there is a difference.

Approach

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- If you desire, you may place your figures and tables properly within the text of your results part.

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- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts.
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The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

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- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

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  - Submit to generally acknowledged facts and main beliefs in present tense.
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