BEHAVIOUR ANALYSIS OF ONLINE CUSTOMERS USING DYNAMIC PROFILING

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ABSTRACT

Online business is flourishing at a fast pace. The type of business can be of B2B, B2C, C2B or hybrid in nature. Various types of businesses like food, clothing, electronic, entertainment etc. are having variety of clients and the profiles of clients directly affect the business. The profile of clients is affected by various factors. The profile of clients need not be static in nature. Various factors acts as constituents to change the clients' profile. The study of clients' profiling is must for the customer satisfaction, improved return on investment, inherent needs basis advertisement and promotion, understand your customers and future opportunities, improve targeted marketing, help accelerate business performance, drive measurable growth and recognise untapped market potential. This paper focuses over the dynamic profiling of clients behaviour by considering the objectives of dynamic profiling much needed for online business growth perspectives.

Keywords: Clients profiling, online business, behaviour analysis, dynamic profile

I. INTRODUCTION

The exponential growth of computers and communication technology, variety of ventures came into existence. The use of computers and information technology [1]2 changes the definition of Business and Doing-the-Business. The mammoth growth of Internet opens the doors and windows of the global economy and the business is not limited to wired network but it is expanded outside of the borders as well. Most of the existing local consumers and producers are now treated as global consumers [2] and producers. The trade and business caters the need of the modern day consumers and producers.

The use of Virtual media is not only the means of doing the business but also is a way of promoting the products. With the enormous growth of online customers [3] there is huge competition between the traders and online business houses to capture the online market. Customers use the Internet and virtual media to search for the information [4,7] related to their needed products hence the online advertisement [20] and reviews of the consumers are also the important parameters that affect or even determine the branding and promotion of the brands (Casalo, Flavian & Guinaliu, 2008). The reviews of the consumers affect the online market by way of affecting the decision making of the online clients. Now-a-days business houses are of the opinion to develop multi-channel strategies [5] so that they can be able to gain from the competitive advantages. Numerous number of industries and sectors have expanded their business in online mode in addition to offline.

II. PROFILING OF THE CUSTOMERS

As discussed, the business and competitiveness in business is moved to multiple channels. Retailing is one of the aspect of business which is showing shift from multiple channels [6] to omni-channels [18]. It is necessary for the traders especially in retail business houses to consider the online clients/customers behaviour [8]. Some of the emerging e-business domains flourishing are of mobile devices, clothing, furniture, education, news, social networking, tourism, health and entertainment. There is always variability in clients' behaviour with respect to time and circumstances. The customers' behaviour [9,13] is affected by various factors. Some of the key factors are as under:

Table-1: Factors affecting customers' behaviour			
Social Traits	**Psychological Traits**	**Personal Traits**	**Other Traits**
Family	Personality	Age	Demography
Communities	Interests' domain	Habits	Skill level
Social interaction	Perception	Occupation	Employed/unemployed
Socio-economic	Social trends	Lifestyle	Background factors
Culture	Motivation	Economic Health	Public policy
Reference groups	Beliefs	Education	Access level
	Attitudes	Personality	Frequency patterns
	Convenience	Knowledge	Technology
			Political

Customers' behaviour that affects significantly the marketing decisions and marketing policies [10,11] are further affected by internal and external forces. These factors are needed to be identified. External factors are in general not in the control of the clients. These factors may fall in the category of technology, social aspect, political, economic, demographic, culture or even govt. policies. On the other hand the internal factors are controllable factors up to maximum extent and these are factors in which variability exists depending upon time and circumstances. These are basically the personal traits of the clients that comprises, learning, attitude, perception, education, habits and self-image mainly. The study of these factors directly related to the thought process of the clients. The factors mentioned in table above have impact over marketing strategies and campaigns, brand value determination, e-business health analysis [12] and data science. Below are some key determinants of creating a customers' profile:

- Focus on your business problem.
- Follow roadmap of your clients' journey.
- Dig into demographics.
- Identify and compile clients' feedback.
- Observe and inspect contextual details.
- Understand your business segment.
- Build personas.
- Apply data science to examine the clients' profiles.

III.   BENEFITS OF CUSTOMERS' PROFILING

No organization cannot have complete ideas of all customers and all things so they need to   can create a customer profile so that they can learn and grasp more about their ideal clients, means to say that who they are, and what they can do and what they want to do. Customers profiling [14] help in better decision making in context of the marketing strategies and marketing behaviour. Customers 'profiling directs for targeted Content otherwise the content may be vague for the targeted clients. Customers' profiling helps in finding the exact characteristics of the targeted audiences that caters the marketing needs of the online business because the custom advertisement [15] directly target the particular clients' segments. Suppose that the Customers' profile suggests that the particular client browse for the iPhones, then the Facebook Ads on the page of that very client should be iPhone that leads to the potential business promotion [16].

IV.   CSTOMERS' SEGMENTATION

Customers' profiling can be segmented on the basis of behaviouristic changes in profiling. Some of the profiling belongs to most profitable class, other profitable and others as least profitable class. Marketing and business advertisement strategies are further developed on the basis of this segmented data.
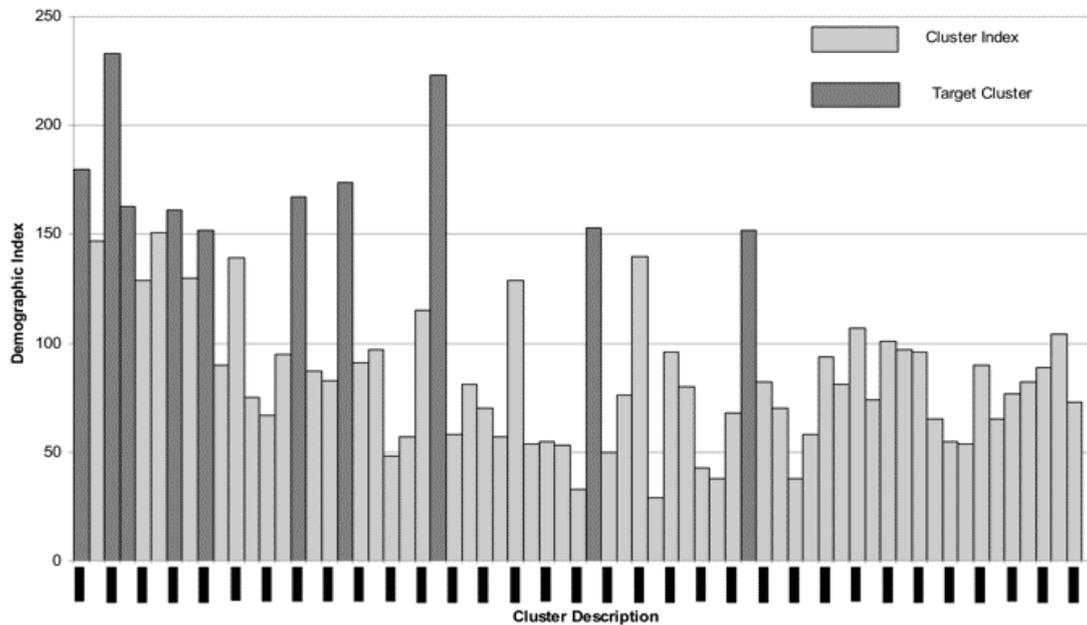

Figure-1: Clients' profiling Segmentation
(Source: http://www.mappinganalytics.com/customer-profiling/customer-profiling-benefits.html)

Customers' profiling segmentation better describe the forecasting of potential in business domains. The Target cluster in the figure highlights the ideal clients that gives high business and should be targeted. The feedback of different segmented groups using profiling helps to improved return on investment, inherent needs basis advertisement and promotion, understand your customers and future opportunities, improve targeted marketing, help accelerate business performance, target new growth arrears and the potential to reach that very potential.
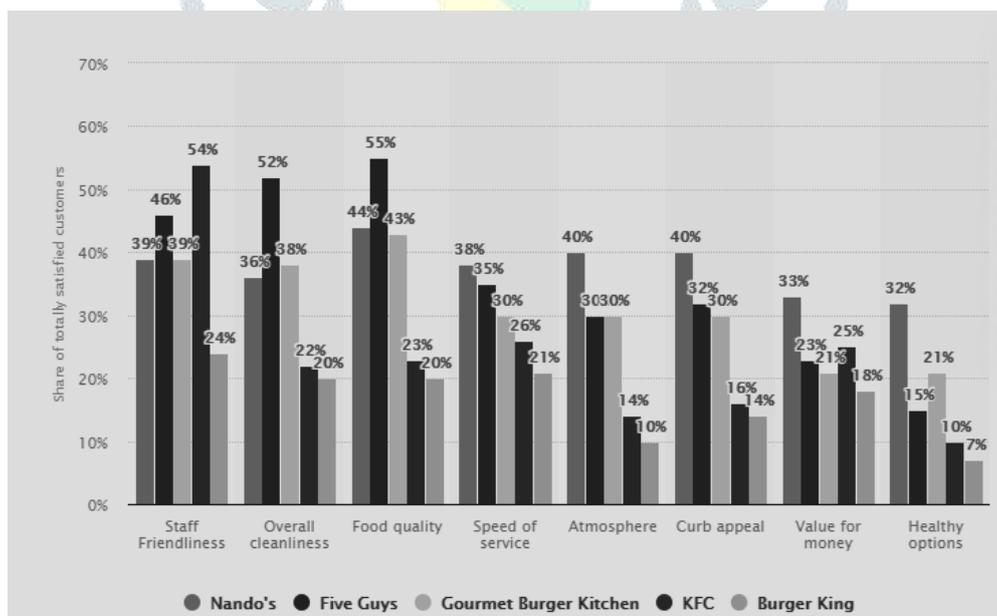

Figure 2: Customers' satisfaction in context of UK's leading fast food
(Source: https://www.statista.com/statistics/610878/fast-food-chains-customer-satisfaction-united-kingdom/)

Figure-2 shows the Customers' profile basis satisfaction selection for the leading fast food of UK. Various attributes are treated for the determination of satisfaction level that directly are the constituents of the clients' profiling. This clients' profiling further provides segmentation on the basis of attributes overall cleanliness, staff friendliness, food quality, atmosphere, speed of service, value for money, curb appeal and healthy options.

Segmentation helps to enhance the value of business and causes to identify various strategies so that the business can be nurtured and maintained. Various factors that are the root causes of the Customers' segmentation:

- Geography (segmentation on the basis of region, area or country)
- Product/Service ((segmentation on the basis product/service purchased)
- Behavioural (segmentation on the basis of product/service usage, frequency and loyalty)
- Demographic (segmentation on the basis of age, gender, income, education, race)
- Value (segmentation on the basis of transactional value or potential revenue)

V.   DYNAMIC PROFILING

Profile of customers do not remain same all the times. Various factors affect the profiling of the customers. Table-1 shows various determinants of clients' behaviour. The four traits that directly affects the customers' profiling are Social Traits, Psychological Traits, Personal Traits, and other miscellaneous Traits. This classification has further various features out of which many are dynamic in nature and accordingly change the clients' behaviour. Profiling based segmentation helps in many ways. Some of the benefit area are:

- Customer Satisfaction
- Improved return on investment
- Inherent needs basis advertisement and promotion
- understand your customers and future opportunities
- Profile based clients' identification for best opportunity prospects.
- Customers' profiling helps to identify new prospects with alike characteristics.
- Help consumer branding
- Improve Targeted Marketing
- Help accelerate business performance
- Drive measurable growth.
- Recognise Untapped Market Potential
- Choose Better Sites

Artificial intelligence is a key phenomenon now-a-days that is applied to cater this dynamic behavioural changes and acknowledge these changes. Proper schedule should be followed and deterministic analysis should be done for dynamic profiling successfully that will help to keep the business on track with the current market scenario.

VI.   DISCUSSION

Dynamic advertisement is required on the basis of dynamic profiling. A review of the results is must. A new strategies are required and implemented by the e-business [17] concerns on the basis of dynamic profiling. A review that may be a review of each quarter. Review should be scientific in nature and that leads to almost accurate results and help to improve the sales pipeline. Dynamic profiling also helps to classify the clients as Lead clients, Ideal clients, Active clients, Passive customers. Profiling data further analysed to identify patterns and trends amongst the targeted clients. As a consequence, clients profiling consists of demographic information as well as past behaviour [19] in addition to the external forces.

VII.   CONCLUSION

Once you have developed a profile of your customers you can then analyse transactional data to identify patterns and trends amongst your customers by segment. As a result, your customer profile is not only based on demographic information but also takes into account past behaviour. You can analyse your customer profile by product type, value, frequency and patterns of spend. Analysing the different patterns of behaviour or spend by customer profile, provides a clear picture of your most profitable customers. Once you understand who your best

customers are, you can develop a strategy allocating the resource you would like to allocate for each segment group.

Optimising your marketing budget and improving return on investment.

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