SMART STRATEGIES OF GROWTH AND BEHAVIOR ON SMART E-TAILORING FRAMEWORK WITH MOBILE APPS TRENDS

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ABSTRACT  
Almost 40 percent of the world population is using the internet and half of them are from Asia. The urge of ready-made apparel has always been a charm in the industry. Since the e-commerce industry has evolved rapidly in the recent past years, online shopping has become a trend globally. E-commerce industry has expanded enormously in the past few years. This paper investigates how online merchants can design their schemes of tailoring. A survey study of market retailers and customers has been made, the authors segregate the customers into two main categories. By examining the deep interest of the consumers they can be classified into goal oriented and pragmatic customers. The authors inspected the results regarding different approaches including the importance of mobile applications in the industry. The outcomes reveal that the differentiation based upon customization, product quantity and website design are more compelling when talking about window shoppers. Further contrast based upon support and receptiveness was found more lucrative when pragmatic customers are in the spotlight. Based on the outcomes the paper proposes a new framework to rectify/improve the tailoring strategies for the enhancement of the e-commerce industry.

Keywords: E-Commerce, Mobile, Virtual Clothing, Interactive design, Online Shopping, User Interface, apparel, Online Shopping, Internet, Innovativeness

1. Introduction  
Since the information technology sector is expanding greatly with the continued development, every department is being affected and renovated per the needs of the consumers [1]. Consumers tend to be attracted by anything which reduces human effort. This appeal may be in any form either getting an electronic resource for the job or hiring a person to do that job efficiently. E-commerce is one of the biggest attraction seen in the modern era. 68.4 % of consumers have faith they will get exceptional deals electronically as compared to roaming around in the local markets [20]. It depicts the transaction of data over the internet. For an average consumer ecommerce means online shopping of anything from household to buying an airplane ticket. In easy words ecommerce means exchange of information between two or more business organizations. Hosting services or selling any kind of products are the fluent examples of ecommerce. It has been estimated to be valued for $3.2 trillion in 2017 while this figure was just around $1.5 trillion in 2013[19].

Clothing is one of the major areas which went online in a very fast way because customers needed quality products at low prices with faster home delivery. Nowadays, consumers desire to personalize the outfit...
and color of the clothes they purchase [13]. To match customer’s requirements, the industry uses information technology, organizational structures and flexible processes that meet the customer’s requirements on a mass scale. E-commerce has expanded on a mass scale (online shopping) and its now linked to body measuring, pattern making and production technology. Online shopping [2] as a trend is internet based provided with customization and clothing design techniques.

Table 1: Goal oriented versus Pragmatic shoppers

<table>
<thead>
<tr>
<th>Goal-Oriented</th>
<th>Pragmatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on shopping by their own</td>
<td>Acknowledge human interaction</td>
</tr>
<tr>
<td>Make effort to minimize time of shopping</td>
<td>Treat shopping like a social activity</td>
</tr>
<tr>
<td>Welcome the lack of pressure</td>
<td>Steadily browse in curiosity</td>
</tr>
</tbody>
</table>

To integrate the corresponding virtue of custom tailoring shops, this framework will be used to develop a model which consists of virtual clothing designing and differentiating between the types of customers. Table 1 represents two major types of customers in the modern era. In dispersion through this model, lies the intercommunication between the customer and the vendor consisting of precious information of the customers. Furthermore, we seek various approaches for making the portal user friendly by developing an interactive user interface and a hybrid application.

In this paper, we report the results of a survey organized for the speculation of people for comprehensible interactive development. The research work will break the geographical barriers and bring the whole process into a quick and easy way to access tailors. It will automate the traditional tailoring system into a modern computerized system [4]. This will enhance data retrieval, storage and security. It is also cost effective since it will cut down on travelling cost to get your measurements taken and going to check if yours cloth has been made and is ready for collection [16]. The clients can access their online tailors 24/7 and at any location provided they are connected to the internet. Due to the advancement in telecommunication e.g. undersea cabling, internet accessing speed is expected to double as the cost reduces [14]. This will make this system more efficient to use and offer a competitive edge in the market.

1.1 Cutting Edge Technology
Operating systems have evolved in an unusual way in the past few years because of the needs of the industry. Today a lot of new operating systems can be seen in the industry with new technologies just to comfort the consumer needs regarding new and useful applications. This research introduces a great way to approach customers by developing a mobile application so that customers can save their precious time and make orders from home. Mobile applications provide a cutting edge in the market. Mobile applications offer users the satisfaction of setting up their preferences easily so they may be benefitted with customized content based on their interests. They have the advantage of utilizing features of a mobile device like camera, contact list, GPS, phone calls, etc. This means that the application will provide the dealers with a leading edge above all in their local markets making this application “Finest “of all.

1.2. Why Custom Tailoring?
This is comfort and confidence in one apparel is custom-made to your exact measurements. Make the right impression every time with the variety of elegant designs making your apparel eye catching. Superior quality of the chosen fabrics and exceptional stitching combined makes clothing look beautiful. It’s hard to believe, but the quality, style and choice we offer comes at a price you simply won’t find from any other shirts styling store.

2. Evolution of E-Commerce
Shopping has been one of the most popular movements on the internet. It provides you with charisma of shopping at your leisure, anytime in any part of the globe [10]. E-commerce has provided the platform for everyone to display their goods and services. In figure 4 depicts the interest of customers towards online shopping.
History of ecommerce terms back to the development of the very old approach of sell and buy. Ecommerce became probable in 1991 when the Internet went available for commercial selling and business [9]. Since then several businesses have made their way up the e-commerce industry. Online dealers also get some big advantage through web and the search engines, as they provide measures to be found by the customers without extravagant advertisements [4]. Shops scaling form the local market all the way up to big brands can reach global market. The search engines make it easier to trail customer preferences in the global market.

![Bar graph illustrating the increment of e-commerce in Pakistan.](image)

3. LITERATURE REVIEW

Tailoring has been known to be dominated by unlearned people. The tailoring industry uses a traditional manual system to book their clients. The clients must go through a long and stressful process of getting their clothes stitched by traveling to the location of the tailor shop to get their measurements taken which are manually written on some piece of paper or on a book. Although this method is a huge threat to the information of the customer [15] i.e. it can get lost or it can go through the hands of unauthorized people which can result in lack of data confidentially and integrity [16].

Online tailoring management system will revolutionaries the system and solve these problems by automating the whole system and increase the accessibility irrespective of the customer’s location provided they are connected to the internet facility. The custom-tailoring shop will be able to supply well-fit clothing by using customization mode, but it has higher cost and lower productivity. Instead of manual measurements, body scan technology is being used to directly extract body measurements [8]. However, such high cost equipment is unaffordable especially in ordinary enterprises.

The obvious limitation is the privacy of client’s body information [12]. Therefore, we are using an online measurement form to take the customers body measurements.

3.1. Traditional Methods

For hundreds of years’ people have depend upon the traditional method of sewing clothes [16]. Modern conveniences, such as interfacing and automatic buttonhole attachments, have made traditional sewing techniques optional for most garments. However, while the modern equivalent will get the job done in an acceptable manner [3], the results will never be equal: a properly hand sewn buttonhole will always look better than one created by machine [15]. Figure 3 represents the opinion of customers if e-commerce is better than the traditional methods. Online custom tailoring and then stitching by a tailor is the only solution to this problem. E-commerce store will provide the customers with home based shopping service and the tailoring done by an experienced tailor will make their apparel look equivalent to the products purchased in the local market.

3.2. Strategies for increasing customer satisfaction and loyalty

It is necessary to remember that not all differentiation techniques have an influence on performance, thus it is mandatory to focus on strategies that contribute advantage to the vendors by implying customer
loyalty and satisfaction [18]. Following differentiation strategies can contribute for the contentment and allegiance of the customers in the industry:

1. Customization – tailoring the interfaces according to customer requirements
2. Propagation – the authenticity of the information provided
3. Customer care – keeping in touch with the customer before and after purchasing
4. Community – environment created by the vendor
5. Creativity – the structure of the website

We targeted the local markets and talk through the sales persons about what they think about the tailoring industry going online and the response was overwhelming. Vast number of individuals agreed to the fact that the industry should take a leap and go through some changes which might bring good variety to the shopping methodology.

4. SURVEY ANALYSIS

Around 500 plus online users agreed to the proposed solution of our project. The demographic profile of the respondents can be viewed inside Table 2. For that we created a survey form and asked individuals from different parts of the country belonging to different fields to highlight their opinion for the proposed questions. The responses predict the interest of customers in Pakistan regarding online shopping and how it has increased rapidly over the past few years. As we can see that people are now relying more upon online shopping as compared to the traditional way of shopping in the market.

![Online retail market size and growth in third world countries](image)

Figure 2: Online retail market size and growth in third world countries [17].

Researchers are hopeful that these numbers will increase more in the upcoming years [7]. People showed different opinions regarding what they think is the biggest advantage of online shopping. Most of them agreed that it takes a lot less effort in shopping over internet as compared to going to the local markets. Figure 5 represents the biggest advantage of E-commerce industry is that it saves a lot of time of the customers. As far as shopping is concerned consumers demand quality products in insignificant amount of time [11] and electronic shopping is the best answer for that. When asked about the features of an E-commerce website in figure 6, consumers usually grade the web page by the **resourcefulness** of the products. Aloofness concerns are still a tough nut to crack among the customers around the globe. The industry is more concerned about the privacy of the details of its customers that how to grow a **riskless** environment among the customers.
5. METHODOLOGY

An immense judgment of web analysis is excerpt biasness. In this paper the mall intercept method is used. To avoid biasness data were collected from persons belonging to different life styles and responsibilities at different times on every day of week. The sufficient response rate of the actual number of respondents who shop online was arduous to find. The analytical profile of the respondents can be seen in Table 1.

5.1 Findings

Primarily the business model of such platforms revolves around selling custom made clothes including shirts, trousers, business suits, jackets, blazers, and accessories. Respondents were fluent towards the fact that the industry should prevail in the direction of technology. Table 3 represents the variety of questions being asked.
The agility of the industry predicts that soon the customers will need to gain quick access to their apparel stores in any part of the world so that they can easily create or modify their necessity any time. For this purpose, a hybrid app has also been designed to fulfill the needs of the customers constantly which will be applicable on every operating system. The agility of the industry predicts that soon the customers will need to gain quick access to their apparel stores in any part of the world so that they can easily create or modify their necessity any time. For this purpose, a hybrid app has also been designed to fulfill the needs of the customers constantly which will be applicable on every operating system.

5.2. Responsive Mobile App
Another success factor for this research is the development of a “Hybrid Mobile Application”. For the very first time a mobile application is being introduced for this purpose. With the growing popularity of smart phones over the past few years, an e-commerce application is the most important factor in the industry. Therefore, a hybrid application is being proposed so that the customer can benefit from the online portal and access their information 24/7. Figure 7 represents a view of the proposed mobile application. This application will stand out as a unique source of designing clothes for the customers around the world.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increment in e-commerce industry</td>
<td>89 %</td>
<td>11 %</td>
</tr>
<tr>
<td>Customer preference instead of traditional methods</td>
<td>68.4 %</td>
<td>31.6 %</td>
</tr>
</tbody>
</table>
| Important e-commerce features                   | Original products 68.5 %  
Readability 31.5 % |
| Influence of online shopping                    | Less effort 40.6 %  
Vast variety 32.9 %  
Accessibility 26.5 % |
| Customer hesitation due privacy concerns        | Occasionally 37.9 %  
Most of the time 31.8 %  
Never 30.3 % |

5.3. Proposed Solution

The major highlights of the process are:

5.3.1 Fabric Selection
Once the customer has successfully logged in the system they can choose between the prefabricated products and the panel of creating their own customized products. We can see in figure 8 that the customer has a choice of fabric selection between stripes and plain. In the personalize panel they first must choose between the diversity of fabrics and textures provided.

5.3.3 Measurement Submission
Figure 10 shows the most important aspect of the application which is the measurement submission for the customer. The most important component is the intake of measurements and these details need to be on point because these specifics will help transform the apparel in the actual size desired by the customers.
5.3.2 Style Selection:
Figure 9 represents the selection of style for the customer. After the apparel selection, the user is provided with a set of options through which they can customize their apparel in a unique way. Customization includes the selection of collars, buttons, cuffs, threads and the rest.

5.3.4 Payment & Delivery:

The client needs to enter his payment methods either its online payment or its going to be cash on delivery. If the customer wishes to make payments through credit cards, he or she needs to enter the details of credit card. For the delivery to be successful the customers need to enter their exact location for the order to be placed. A view of the order details of the desired product designed by the customer is shown in
Figure 11. Once the order is received and the payment has been made, the team behind the venture gives measurement and styling details to expert tailors who start customizing the shirt/dress per the inputs provided by the user. Order is shipped to the user upon completion.

5.3.5 Privacy & Security:
Considering the privacy of the customer one of the major subjects of this research work as we can see in figure 2, we are planning to implement a variety of security measures to preserve the personal information of the customers while they are placing orders or accessing their personal information.

During the process a virtual model of the designed apparel must be there along the side to give the user an overall look of the apparel which is shown in Figure 8. The ultimate encounter is the measurements of the apparel which need to be accurate along the way. One narrow mistake could end the charm of the apparel.

6. DISCUSSION
The main discoveries of the study are as follows:

1. Online differentiation strategies based upon customization, product quantity and website design can upsurge levels of satisfaction and loyalty among the vendors and the customers when addressing the goal-oriented persons.
2. Differentiation strategies based upon customer care, accessibility and value for money would increase satisfaction levels when focusing on pragmatic customers.
3. The extensive approach formulated by this research states that merchants of online stores can enhance their productivity by working on different strategies combined with compatible outlook which will result in customer satisfaction and loyalty between merchants and the consumers. To increase overall loyalty and satisfaction the store managers should classify the customers into two categories which are either goal-oriented or pragmatic/experiential shoppers. They should design their market strategies per the interest of the number of customers they welcome in the shops [6].

7. CONCLUSION & FURTHER WORK
This research studies the possibility of developing an interactive 24/7 portal for custom tailored shirts through a hybrid application. Nowadays several ready-made apparel shops are coming up frequently, which include the corporate companies as well as entrepreneurs from around the world. Many apparels sold over the internet represent only a small amount of clothes sold in the local and international markets.

The root of online shopping hesitancy is directed to many reasons including poor-fit, size confusion and defects. Our research predicts that the online store will help the customers advance in online shopping by reducing the stated cause. Ultimately, this will revolutionaries the traditional methodology and help grow the economy through commercialization. Research indicates that the online shop should come with commitment to maintain the integrity of the store to retain the customers.

Furthermore, the vendors can consider setting up a scanning environment for their shops to pull the customers’ measurement in a better way [5]. This will be helpful for both the customers and the vendors because it will reduce the amount of time spent on the measurement process. The statistics pulled from this process would be more accurate than ever because of the artificial intelligent facility.
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