Budget Management Shopping Strategy for an E-Commerce Website

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ABSTRACT

Recent e-commerce website does not assure shopping within a stipulated budget. Many a times when our basket/cart contains multiple products our budget gets collapsed. This somewhere affects customer shopping experience. Hence in this research we propose a methodology where a different combination of products, that customer wants to purchase is made. Then these combinations or these baskets are further evaluated based on customer's given budget. While suggesting readymade baskets to customer, we make sure that quality of product is not hampered. During these transactions it is verified that both seller and customer point of view is taken into consideration. Hence due to our proposed system seller's profit margin too is considered while suggesting the basket to customer. This system enables easy shopping within less time. Many a times it happens that buyers are not satisfied because selection of products go beyond the budget and buyer is not able to spend perfect price on product on which buyer should look forward to spend. Hence our system helps in managing purchases according to preferences.

Today's e-commerce website does not provide the shopping within buyers or customers stipulated budget. In our work we produce a win-win condition for both, seller and buyer/customer. Seller's profit margin is also considered while pairing products and product ratings are consider to ensure product quality. Hence our work aims to benefit both seller and buyer without compromising product quality.

INTRODUCTION

Budget overruns are a litmus test for consumer's success or failure in terms of satisfaction. Few buyers have an unlimited budget, so the first thing the consumers look to in determining whether their purchase was a great success or a colossal failure is the bottom line. This fact fuels the pressure the seller face with each passing day. Therefore such, effective budget management is a primary area of focus for both, the seller and the commercial website who value their sustainability in the fast growing market of innovation and ideas.

The project also works on the same agenda. For example, a buyer wants to buy mobile phone, power bank and a earphone but has a budget of 10000 rupees. Now, keeping his budget in mind, the project application will show various combinations of these 3 products without exceeding the total cost of the cart beyond the provided budget.

The idea of the project is to provide an online shopping portal. It comes in two variant app-based (platform independent) and web-based. It could be used by online retail stores to provide a budget management shopping strategy for buyer or shoppers. This app is to be used by seller to manage his profit margin and seller to purchase his/her utility in a convenient way. This work considers the problem

buyer faces due to his budget without ignoring seller's revenue per customer.

LITERATURE SURVEY

[1] W.Lam "Testing e-commerce systems:a practical guide" Published in IT Professional Mar/Apr 2001 IEEE Computer Society. This article provides a quick and practical introduction to testing medium- to large-scale transactional e-commerce systems based on project experiences developing tailored solutions for B2C Web retailing and B2B procurement.

[2] Wan Nurhayati Wan Ab. Rahman, Asma' Badrul Kamal, Hazliana Talha, Bunjo Josiah, Lawal Adamu, Wu Liming and Nur Sakinah Mohd Rosli Faculty of Computer Science and Information Technology, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, Malaysia " Software quality assurance - E-commerce customers satisfaction in requirements engineering process". This paper proposes quality attributes from the SQA activities in requirement phase from the end users' perspective in an e-commerce application. This paper describes the quality attributes that are gained from the requirements elicitation, requirements documentation, requirements validation, negotiation and the requirements management planning activities.

[3] Iacer Calixto, Daniel Stein,Evgeny Matusov,Pintu Lohar, Sheila Castilho and Andy Way ADAPT Centre, School of Computing, Dublin City University, Dublin, Ireland eBay Inc., Aachen, Germany "Using Images to improve Machine-Translating e-commerce product listings" . In this paper we study the impact of using images to machine-translate user-generated ecommerce product listings. Models are trained end-to-end as well as use text-only and multimodal NMT models for re-ranking n-best lists generated by an SMT model.

[4] Anand Upadhyay, Ambrish Pathak,Nirbhay Singh "Evolution of online shopping" International Journal of Commerce and Management Research ISSN. The purpose of this research paper is to study the consumer's behavior towards buying pattern while doing online shopping. The main aim of this research is to study about the factors which usually affect the consumers directly for doing online shopping and which thus hinders the online shopping process.

[5] V. Lakshmi Chaitanya M.tech, Assistant Professor, CSE Department, SREC, Nandyal, India G. Vijaya Bhaskar M.Tech, Aurora Engineering College, Hyderabad, India "Apriori vs Genetic algorithms for identifying frequent item sets". The main Objective of this paper is to mine the data from the database for set of transactions. By taking the set of item sets as input and find the frequency of each item.. In general frequent item sets are generated from large data sets by applying association rule mining algorithms like Apriori, partition algorithms etc., which take too much computer time to compute all the frequent itemsets

PROPOSED SYSTEM

In the proposed system, Product information is saved in a database by database administrator and seller or retailer. This information includes brand details, buying price, selling price, product rating, etc. Whenever buyer enters this shopping portal he will enter his stipulated budget and list products he is willing to purchase. System will then automatically create baskets based on different combinations of product brands and types.

These baskets are then ranked depending on the basket rating and sellers Revenue per Customer. Basket ratings are calculated by aggregating the rating of products it contains. Revenue per customer is calculated by summing the profit obtained for each product in the basket. Hence it is compulsion for seller to predefine his minimum profit margin.

If the basket is not satisfactory for seller, system recommends buyer to increase his budget. If buyer is not satisfied by the basket, there will always be an option for customization of basket.

Depending on buyer's selected products, an Apriori algorithm is implemented to suggest some more products within his budget or somewhere close to his budget. While suggesting products, his purchase and surfing history is considered.

System Block Diagram
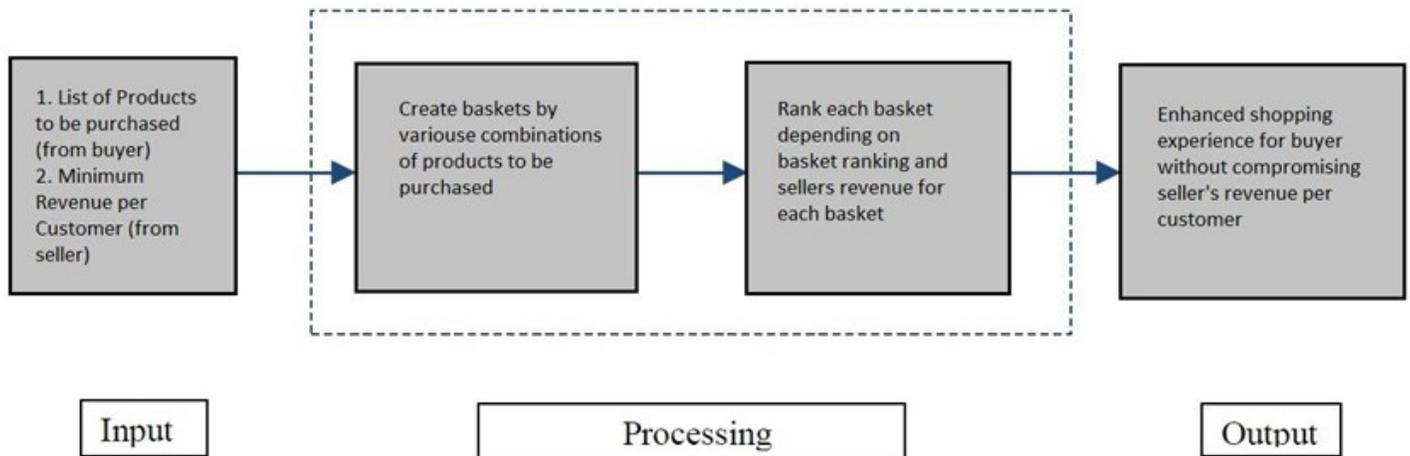
PROPOSED SYSTEM DESIGN
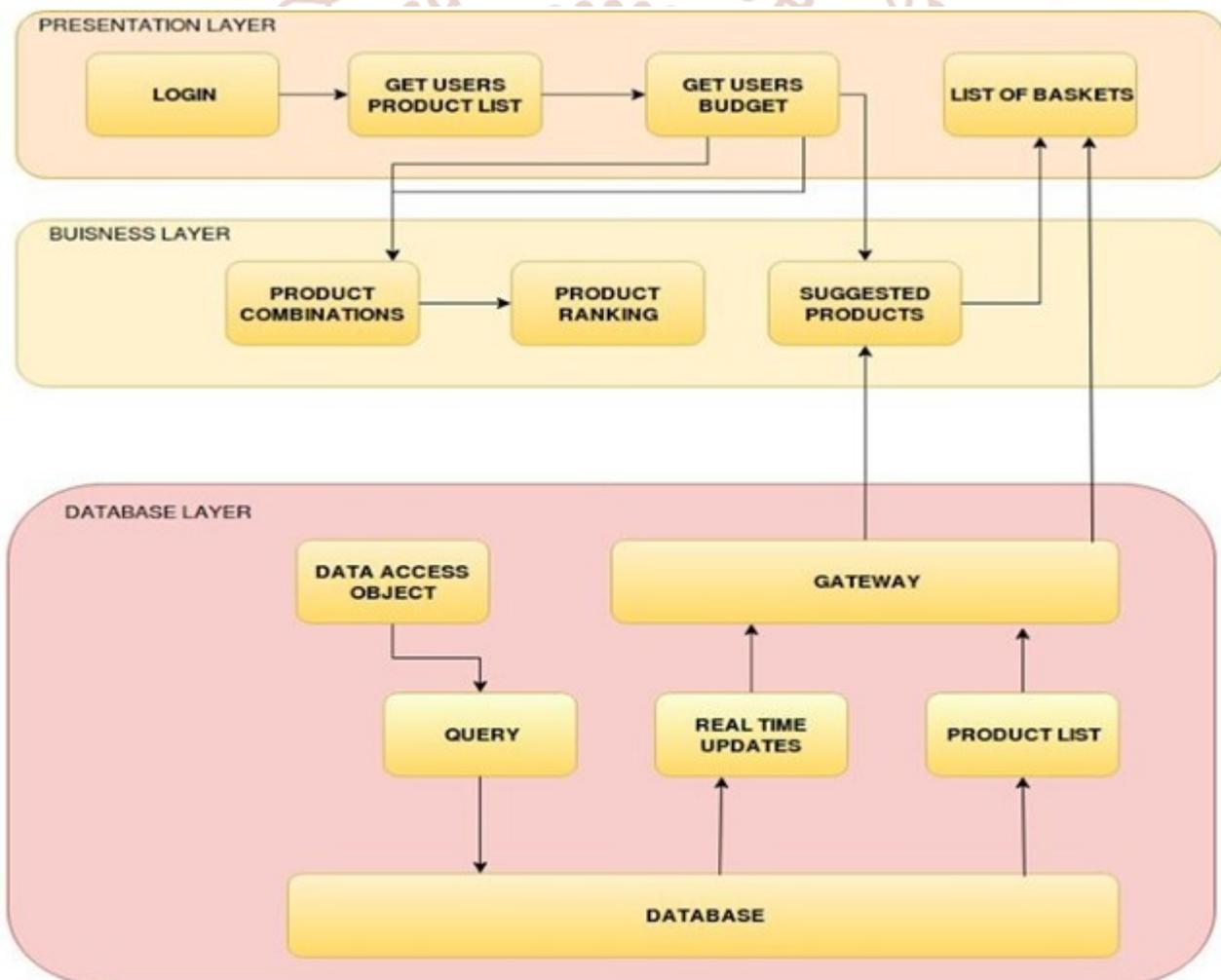
METHODOLOGIES

- ✓ Real-time Data Synchronization
- ✓ Apriori Algorithm
- ✓ Product Ranking Algorithm
- ✓ Association Rule Mining

OUTCOMES

- ✓ Enhance buyers Experience
- ✓ Increase sellers profit
- ✓ Fulfill buyers utility within budget

LIMITATIONS & SCOPE

- ✓ If the budget entered by Buyer is too low.
- ✓ If the Product gets out of stock too frequently.
- ✓ If a specific product desired by buyer is not found

System is developed to handle multiple users at a time these users can be buyer, seller, system administrator hence everyone's access permissions are considered. Only buyer can handle critical information like product's selling price as baskets are ranked depending on seller's Revenue per Customer. It is right of System administrator to conduct secure transaction and to maintain buyer's information. Over time, buyers shopping experience is not up to the mark. Buyer is unsatisfied because today's e-commerce website does not guarantee purchasing price of entire basket within buyer's budget. Today's e-commerce website only cares more about revenue per customer(RPC) for seller hence somewhere buyer's needs are surpassed. Budget of buyer gets collapsed when buyer is willing to purchase range of products. Hence a well-planned budget management strategy for buyer and proper revenue per customer for seller plays an important role in meeting these objectives. Hence this system enables perfect shopping in less time.

CONCLUSION

Hence, the implementation of a web-based and a hybrid mobile application platform that allows the buyer and seller to achieve the efficient and convenient shopping strategy. Shopping experience is crucial where time, money and quality counts. Today's buyers need robust, yet easy-to-use tools to help them in purchasing products within their budget without compromising on quality.

Hence, budget management shopping strategy comes into play. A web-based and a hybrid mobile application platform that allows the buyers and sellers to achieve the efficient and convenient shopping without compromising on their required values.

ACKNOWLEDGMENT

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3. Iacer Calixto, Daniel Stein,Evgeny Matusov,Pintu Lohar, Sheila Castilho and Andy Way ADAPT Centre, School of Computing, Dublin City University, Dublin, Ireland eBay Inc., Aachen, Germany "Using Images to improve Machine-Translating e-commerce product listings".

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5. V. Lakshmi Chaitanya M.tech, Assistant Professor, CSE Department, SREC, Nandyal, India G. Vijaya Bhaskar M.Tech, Aurora Engineering College,Hyderabad, India "Apriori vs genetic algorithms for Identifying frequent item sets"