

Unique Identical Weightage (UIW) Model for Real Time Customer Search Queries

M. Alamelu T. S. Pradeep Kumar

Abstract: E-commerce systems plays the vital role in Information Technology and communication applications. Compared to the technology of olden days, people now days buys their required products and services from the online service transactions. Buying and selling products are frequently increasing factor for both the buyer and seller. From the customer point of view searching of quality products with the consumable cost is a big challenge. The proposed system Unique Identical weightage (UIW) system reveals about the customer searching analysis using the weightage system approach. The UIS analysis system will track the identity of the customer queries with respect to the searching categories. The proposed system will make the classification based on the customer searching criteria. Ranking weightage is allotted based on the searching method and finally produce the judgemental range of searching choices to the customer. The advantage of the system will provide quick searching solutions to the customer. This method outperforms the existing system in reducing the time wasted by a customer for searching a product.

Keywords: E Commerce, Weightage based system, Search Query, Identical Weightage system

I. INTRODUCTION

Online purchasing and selling becomes the most reachable frequency in recent days. Online product searching will be easy for people choose their preferred products and select their choices. Among the number of online web sites, customer have the analysis in searching the products. The customer will search the products with best quality, low cost and short delivery period. There is some frequent issues will be arise during searching of products. Such as the site can have the complicated product information, this will make the customer confusion of selecting the product. Eg. Some home furniture products may require more guidelines to select the product. Once the customer read the full catalogue they will get the idea of choosing the product. The customer support is essential while choosing the online products. Currently for many web sites this criteria is missing to choose the suitable product.

The next issue arise with the unavailability of the necessary information. Once the sales person has updated the project in the web site, they should provide the necessary information. The insufficient information will make customer confusion of choosing the product. For example, the sales person has selling the cloths (shirts, frocks, pants) product should specify all the details about the cloths. For the shirts they have to provide the colour, size measure,

model, washing method and the purchase amount and product delivery time. If any one of the required information is missing will lead the customer dissatisfaction of selecting the product. So it is a required value for displaying of products will make the good impression to the customers.

The other observed point in the online shopping is the video conferencing about the product information. In the web site once the product has been displayed there is a choice that selling person can upload the video for further clarification. Some necessary products should require the video demonstration for the full working scenario. Example, Air conditions, washing machines, kitchen appliances, refrigerators which request the video demonstration for the proper working condition. If the products are defined with the video explanation that will help the customers to choose their own choice. During product selling many web sites have missed out the video demonstration and the customers are indeed of having the proper demonstration.

The proposed method Unique Identical semi analysis approach will provide the solution to track the necessity information, frequent availability of the searching products. With the proposed system the customer may come to the conclusion to choosing and selecting the preferred products.

II. LITERATURE SURVEY

Zhengbao Jiang, Zhicheng Dou, (2017) defines the facet based query generating framework for fact based knowledge searching. The framework have freebase knowledge that will retrieve the query based on the fact consideration. User query facts are tracked from the input and mapped with fact database. Fact generation and fact expansion methods are used to mine the query. From the query generating method the author retrieves how the real user input fact query has been analysed and trapped.

Jiaping Zhao et al (2016), proposed the Bag of Word (BOW) frame work for the time series classification. The time series algorithm can be classified based on the Gaussian mixture models and Fisher vector time series. The process can be started with the training time series data, feature point extraction, hybrid sampling, sequence representation and series encoding by fisher vector. With the method the data can be analysed in a frequent time series.

Alamelu, Md. Zubairrahman (2012), proposed a method called Equalization validation approach for web service classification and validation. Multi classifier Mixer and CGP-ETD classifier and request recognizer are used to make the filtering and classification. By this approach the customer requests are validated and classified before sending to the banking transactions. M. Suntinger (2008) proposes

Manuscript published on 30 November 2018.

*Correspondence Author(s)

M. Alamelu, Assistant Professor-II Department of Information Technology, Kumaraguru College of technology, Coimbatore, India.

T. S. Pradeep Kumar, Associate Professor, School of Computing science and Engineering, Vellore Institute of Technology, Chennai, India

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an [open access](https://creativecommons.org/licenses/by-nc-nd/4.0/) article under the CC-BY-NC-ND license <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

Unique Identical Weightage (UIW) Model for Real Time Customer Search Queries

a model for tracking the business processes through easier channel called cylindrical tunnel and this also features a visualisation tool that let the users to search their queries visually from the data store.

There are other methods like decision support systems, AI based search query systems, some systems use (David Kreyenhagen et al. 2014) supervised learning to identify the categories and FMCG products. Also, various recommender systems help in identifying the wellness of the product for the customers. Steven O et al., (2008) suggested rankings and ratings were used to identify products for their quality, betterment and scope.

III. UNIQUE IDENTICAL WEIGHTAGE SYSTEM (UIW)

The proposed UIW method provides the quick searching products procedure to the customers. The system will make the weightages based on the customer searching. The searching can be varied and differed with the customer requirement. Each customer have the preference of choosing the product. Initially the system will collect the searching topics with the product name and price. This data is further categorized with the back end package of database. Figure.1 displays the unique identical weightage system (UIW) with the multiple components.

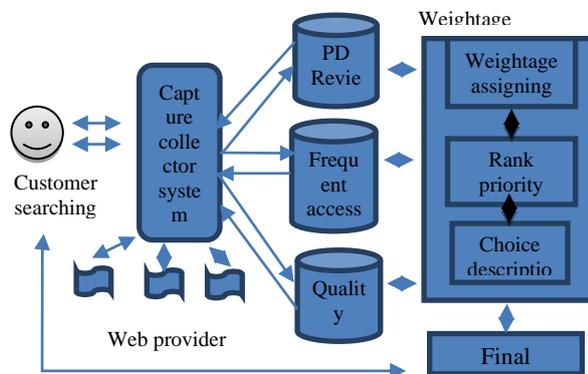


Figure.1 Unique Identical Weightage system

A. Capture Collector System

The capture collector system will collect the customer requests for the different searching service products. The capture collector system will initially have the authorized accessing capacity ratio from the particular web site. Once they have got the agreement from the searching website the provider have the accessibility of accessing the customer searching scenario. This scenario has been identified by the capture collector system and process filtration of data. Based upon the customer searching process the data has been collected and stored in the system.

Database Retrievals

The proposed system have the three sorts of database retrievals for product searching. They are Product Review Database, Frequent access website database, Quality consideration database.

B. Product Review Database:

Based upon the customer searching criteria the products are rated and stored in the product review database. The database can store the data with respect to the customer searching and buying products. Which means, if the

customer has just have the view of the product that group wise data has been tracked and stored in the first phase, and the second phase is buying analysis project view has been searched and mapped . The database also store the people review rate about the particular product.

First phase: product viewing data has been stored

eg...

1. Life style clothes + viewed + with price details
2. Furniture models + viewed + with price details

Second phase: Buying analysis product view has been stored

Eg..

1. Life style clothes + viewed + purchased with the amount of Rs.6000/-
2. Home appliances models + viewed + purchased with the amount of Rs.15,000/-

A. Frequent access website database:

This database will store the customer searching products with respect to the frequent accessing site representation. Such as, if one customer has frequently viewing the flipcart website for product searching can be put on analysis. The most frequently accessed or viewed data base has been tracked and rated as the first, second and third. First falls that , if the customer has frequent accessing with one website, second is for accessing more than one number of web site, third is for accessing more than three numbers of websites.

Eg.. Searched cosmetics items + Amazon service + frequently _ first category

Searched watches + flip cart service + + Amazon service + frequent _ second category

Searched vessels + flip cart service + + Amazon service ++ eBay service + frequent_ third category

C. Quality Consideration Database:

The user review product quality has been rated and stored in this data base. This database will store the quality rate analysis of the searching product. The quality searching can be analysed and ranked with the rate1, rate 2. If the customer has searched with the good quality with high cost can be considered in the rate 1, if the customer has searched with no more quality standards can be rated as the rate 2 tracking. If the searching has been analysed and mapped this considered in this data base.

Eg... product searched good quality + high cost - > Rate 1

Product searched no standards + low cost -> Rate 2

From the consideration of the above three databases the searched category product analysis has been next feed to the weightage management system. From this system the searching has been categorized with the weightages.

IV .Weightage management system

The weightage management system will make the analysis with the algorithms of

- Weightage assigning
- Rank priority analysis
- Choice description

D. Weightage Assigning

The weightage assigning will make the weightages based on the collective responses from the customer query. Such as the customer searching query the weightage can be prioritized based on the customer product search.

1. Customer searching can be accessed with the product searching.
2. It assigned with the random value for eg..“sx”.
3. “sx” was mapped with the rating data in product review database.
4. If sx was comes in the first phase it can be assigned with the weightage from the random integer values from 1 to 10. Eg..sx + 3
or
5. If “sx” comes in second phase it can be assigned with the weightage from the random values assumption from 20 to 50. This can be assigned with the weightage of 20 to 30 as because the searching can be finalized with the final PR review. Eg..sx ++ 23

The weightage assumption has based on the customer searching the product. If the product searching was fixed it next moves to the rank priority analysis.

E. Rank priority analysis

Once the weightage has fixed the rank priority will be assigned for the weightage input. Based upon the customer searching criteria, web site searching can be categorized as ranking of first, second and third.

1. Rank priority analysis can be ranked with first, second and third analysis.
2. Weightage assigning is assumed with weightage rank and categorical ranking eg. (Sx + 3) + First category.
3. Map web category with the weightage
4. If weightage assigning is assumed with second category searching it assumed as eg.. (sx ++ 37) + Second category

A. Choice description

The choice description is the combination of the two set of weightage and rank priority analysis. Once the choice has been analysed it to be sent to the customers for choice analysis. The choice has been fixed based on the customer product base weightage services.

1. If weightage is mapped with frequent access website ratio first rank then it is to be accepted as choice 1. Eg.. flip kart frequent access + first rank - > choice 1
2. If weightage is mapped with frequent access website second rank then it is to be accepted as choice 2. Eg.. Amazon + flip kart + second rank -> choice 2
3. Similar way the choice can be of any weightage with any one of the two types ranking.

Flip cart + Amazon + first /second /third (based on rank priority analysis) - >Any choice

IV.FINAL DESCRIPTION

The final description may be of the list of description that are submitted as choices to the customer. In this descriptions

have the list of choice values to be displayed to the customer, from the given description the customer can choose their own choice and make the final decision.

1. Choice listed with the product review, website familiarity and quality consideration.
2. If the customer accepted with the given list of choices they will buy the products.
3. Eg..sx ++ 37 + second category + choice 2 = accept rate with take over
Sx + 3 + first category + choice 1 = average rate of take over
Sx + + 50 + second category + choice (Null) = low accept rate to take over

Similar way the choices can be differed with the list of searching from the final make over list the customer can come to the final decision to both search and buy the suitable product.

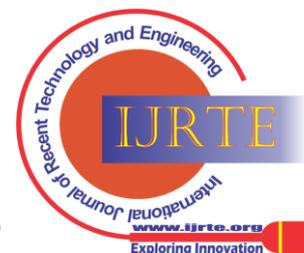
V.RESULTS AND DISCUSSIONS

In the existing system has the analysed with the fact query analysis, time series identification and accuracy generation. The proposed UIW system will also conquer with the present customer query analysis based on their searching criteria and choice description, rank priority analysis.

Table.1. Properties Comparison with Existing System

Fact query generation	S.No	UIW system	BoW framework	EVC method	General properties
Fact grouping	1.	Weightage assignning	Feature point detector	Multi Classifier Mixer	Grouping
Fact weightin g	2.	Rank priority analysis	HOG-ID descriptor	CG-ET classifier	ranking
Free base	3.	Choice description	DTW-MDS descriptor	Request Recognizer	descripti on

Table.1 represents the UIW proposed and existing system general comparison with the general defined properties. The properties grouping, classification and database generation has been compared and mapped with the existing works. Such that the first category has mapped with the data set or customer set. Proposed UIW system will validate the customer searching with the weightage assigning with this the weightage has been allotted for the searched queries. Second property defines Rank priority analysis has been defined with the classification of rank of searching, the property also improved comparing by fact finding, HOG-ET descriptor and CG-ET classifier. Third property choice descriptions has been compared with the free base, DTW-MDS descriptor and request recognizer. This property defines that the database accusation has been improved for the customer input query.



From the overall comparison UIW has improved the customer searching criteria with the three major properties of grouping, ranking and description.

VI.CONCLUSION

Unique identical weightage system will provide the customer searching query with the proposed methods of weightage analysis, rank priority analysis and choice description. By this system, based on the customer searching query will put on the weightages. The major advantage of this proposed system will provide the solution with the quick searching queries with the appropriate weightages. Once the appropriate weightage has been fixed product review, website ranking and choice description has been mapped with the searched query. With the proposed system the user may come to the conclusion of quick searching and analysis of retrieval of service products.

REFERENCES

1. Zhengbao Jiang, Zhicheng Dou, Member, Ji-Rong Wen, "Generating query facts using knowledge Bases", IEEE transactions on knowledge and data engineering, vol. 29, no. 2, february 2017.
2. Jiaping Zhao, Laurent Itti, "Classifying time series using local descriptors with hybrid sampling" IEEE transactions on knowledge and data engineering, vol. 28, no. 3, march 2016.
3. M.Alamelu, AMJ ZubairRahman, "Validation and classification of web services using Equalization Validation Classification" Journal of Internet banking and commerce, Vol.17, Issue 3, pp.2-21,2012.
4. Steven O. Kimbrough, Thomas Y. Lee, UlkuOktem, Modeling for Decision Support in Network-Based Services, vol. 42, pp. 196, 2012.
5. C. David Kreyenhagen, T. I. Aleshin, J. E. Bouchard, A. M. I. Wise and R. K. Zalewski, "Using supervised learning to classify clothing brand styles," 2014 Systems and Information Engineering Design Symposium (SIEDS), Charlottesville, VA, 2014, pp. 239-243.
6. M.Alamelu, RamalathaMarimuthu, "A survey on healthcare and social network collaborative service utilization using internet of things", Vol.9,pp.1010-1030, Journal of Advanced Research in Dynamical and Control Systems,2017
7. M.Alamelu, A.M.J. Mohamed ZubairRahman, "Evaluation of service transactions and selection of quality offered services in a business environment", American Journal of Applied Sciences Vol.11, Issue No.2,pp. 207-215, 2014.
8. JayakumarSadhasivam, Alamelu M, Radhika R, Ramya S, Dharani K and SenthilJayavel, "Enhanced way of securing automated teller machine to track the misusers using secure monitor tracking analysis", IOP Conf. Series: Materials Science and Engineering, 263, 2017.
9. M. Alamelu, S. Karthikeshwar, V. Deelipan, C. T. Gowtham, "Mismatch cancer colour prediction analysis on Big Data", Research Script, pp.4-7, 2016.