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# Influence of AI Retail Big Basket Solution Security Perspective Using Pattern Based Discrimination Using Attribute Depth Measure Algorithm

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**ABSTRACT:** Unfulfilled demands being met through the online market, is it here to stay? This is the important question facing the industry. Be it the big malls or the online market they have to compete for space in the same market with all retail formats. The formats which will survive will be decided by the consumers. Thus mapping consumer behavior and responding to it is the prime task for all marketers, more so for the technology loaded online market. The old consumer market seemed to be very simple. The aim was to expand the market size continuously in order to achieve economies of scale. In contrast, the new consumer market is mostly based on information management and digital revolution. The research studies that online buyers are influenced by various benefits which accrue from the advantages that technology has on offer. These have been clubbed under the following after factor analysis. Buyers have made purchases due to benefits accruing to them in the areas of Improved Retail Big basket Service, Pattern Based Discrimination Using Attribute Depth Measure Algorithm. Smooth Operations, Customer Relationship Management, and Consistency in delivery, better scope of discount, Discreet purchases, Satisfaction on usage, Trustworthy Retailing. The study also found four significant clusters by applying cluster analysis on demographic factors of online consumers with respect to online shopping factors which are as follows: The first part of the research which deals with theories of marketing, segmentation and retailing and online shopping etc., for this secondary data was used. As the data available was studied it became clear that much thought had gone into identifying factors affecting online consumer buying behavior, and for segmenting online consumer behavior little or no work done. A segmentation analysis on the basis of variables which affect e-shopping decision helps online retailers to understand the need of their target market more clearly.

**KEYWORDS:** Artificial intelligence, Retail Big Basket Solution, Attribute Depth Measure Algorithm, Pattern Based Discrimination.

## I. INTRODUCTION

Retails are plays very important role in today's life for purchasing any item or Big basket. This retail contains lots of information which can be useful for future systems. Retail Big basket is an emerging field which combines lots of tasks to find the correct Retail Words and Targets which describes the big basket or express the sentiment towards product. Main focus is on Topical Relation, which shows the relation between retail target and retail words. These topical relations are useful to gain the idea of which topics are mostly discussed by customers for particular product. Retail is a statement which expresses sentiment towards some big basket service, movies or even sentiment about a particular person. In today's world, taking retail from others is rapidly increasing in every other field. For example, if someone wants to buy a laptop from online site, that person will first reads reviews which are submitted by other customers. If that review contains the positive comments, then only other customers are likely to buy that product. Like this retail or reviews given by other users are play important role in purchasing a product, buying a car and in marketing field. The data set which requires data that changes over time must use incremental approach, which allows past updating of past results using new data instances. Another challenge is to tackle grammatical errors. We can improve our results by mapping theses grammatical errors to correct words. As we are dealing with online reviews, there are chances that the data can be noisy, unstructured and dynamic in nature. Removal of such noisy data is also a challenging task. Our main work is to find out the Retail Targets and Words. Retail Targets are objects on which user

express their Retail or Expressions. Retail words are those adjective words which are used to express the sentiment about that object. To extract retail targets we made data set of different objects which can mostly use by the users. For example, in our work we are taking electronic reviews, so most of the retail targets will be (Price, Display, Screen size, Battery, Performance etc.) Another kind of methods is distributional similarity which is popular in text classification. Those methods are assumed that context words of features belonged to same aspect are similar. Some similarity measures, such as Euclidean distance, Cosine, Jacquard, etc., are used to calculate the similarity of documents. Some other work also computes the Point wise Mutual Information (PMI) between words and then clusters words with K-Means based on cosine similarity of PMI weight. The work in uses two constraints based on sharing words and lexical similarity to generate labeled data.

## II. RELATED WORK

The analysis of spatial pattern data usually approached? a simple graphical representation of the pattern of objects as a point map is a very useful preliminary step towards understanding its properties: visual inspection provides a qualitative characterization of the type of the pattern even if rather vague terms are used in the initial description (clustered, aggregated, clumped, patchy, regular, inhibited, uniform, even); it may also indicate correlations among marks or between the point density and spatial covariates, i.e. other random structures which influence the point distribution such as soil property or physical influences. However, for a precise quantification and a more standardized description and finer distinction between types of spatial behavior, appropriate statistical methodology has to be applied. These methods provide information on more subtle differences in spatial structures that are not apparent to the naked eye.

Many different aspects of the nature of a specific spatial point pattern may be described using the appropriate statistical methods. The simplest of these is the point intensity, i.e. the average number of objects per unit area or volume, if point density can be considered constant across space. Note that this resembles the use of the sample mean  $\bar{x}$  in classical statistics. If the point density is variable, intensity maps may be constructed and these may be related to maps describing the values of covariates across space, perhaps in the context of geographical information systems. The analysis of marked point patterns is more interesting and often provides deeper insight into the processes that are causing the pattern than an analysis of unmarked point patterns. Often the marks are 'qualitative', i.e. the pattern is multivariate and consists of several types of points, e.g. different species, ages and size classes. This kind of point pattern data may be regarded either as a superposition or union of single-type point patterns, or alternatively as a single point pattern with different types of labels where the labels indicate the type of points. Even more general information may be assigned to the individual points. The marks can be continuous variants, vectors of variants or even stochastic processes. Examples from forestry include the diameter at breast height (dbh) of a tree, last year's growth increment, and a time series of dbh over several consecutive years. Other examples are particle diameter, size, and shape. A common feature of these measurements is that they describe the status or property of the object associated with a point location. Data sets with 'quantitative' (or real-valued) marks are highly complex as they reflect various correlations among the objects represented by the points and contain an abundance of information on the system of objects. Point process statistics may be used to detect these correlations and hence provide information contained in these data sets.

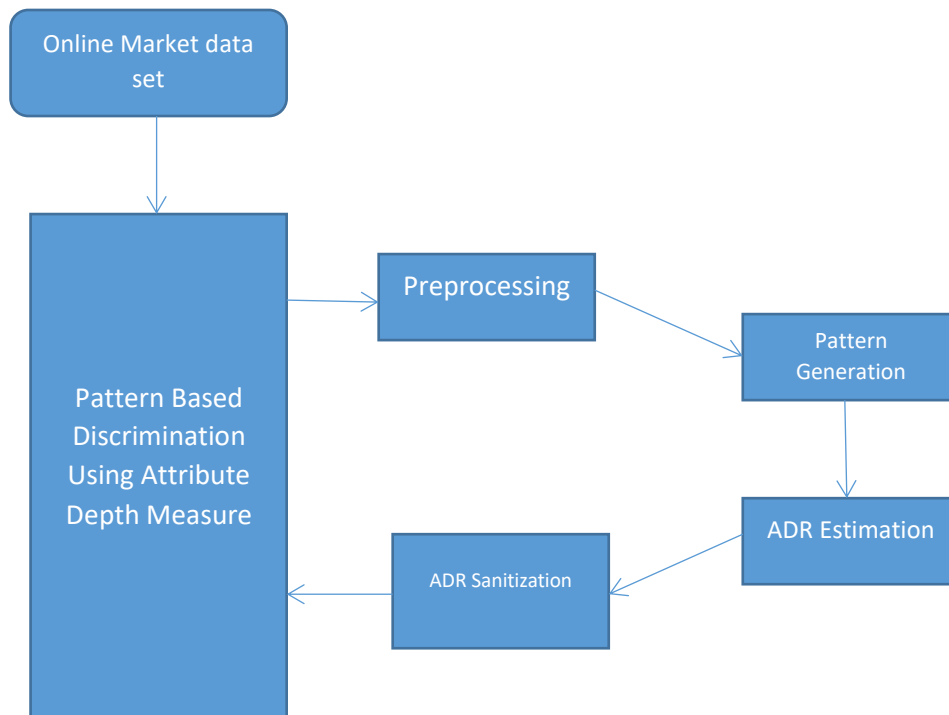
The application of point process statistics in biology is not restricted to non motile organisms such as plants; the methods are also suitable for cross-sectional data on positions of animals at a specific time point. Which is based on a photograph, shows the positions of Pala arctic water striders on a water surface? Water striders are arthropods that live on theater surface and move at high speed from time to time. Individuals communicate by sending signals along the water surface by vibrating their front legs. The spatial patterns formed by individuals contain information on the animals' behavior. Various aspects of behavior, such as habitat selection at different stages in the lifecycle (larval stages, juvenile, and adult), territoriality and cannibalism, are of ecological interest and have been studied in the literature, both in experiments and in the natural environment. The figure shows the last larval stage (stage 5) in a sub rectangle of a water surface of irregular shape. The rectangle was chosen such that methods for stationary point processes can be applied even though the pattern is very small, i.e. the pattern is treated as if it were a small rectangular area in a very large water surface with many water striders. Modern statisticians would probably prefer to observe the entire finite pattern and apply the methods of chapter 3 for finite point processes.

Data collection methods are strongly dependent on the objects represented by the points, the objectives of the study and the available resources, and all these are different for different applications. Generally, the best choice is only the best choice for a very specific example, due to the specific situation and study aims. However, some general guidelines for data collection can be given. Central aspects that need to be considered include the spatial scale, the

relationship to the environment, the morphology, size and density of the objects, and available methods. From a statistical point of view, the aim of data collection methods is to optimize unbiasedness and representativeness and to control sampling errors. The two main aspects in a strategy for data collection are appropriate sampling and appropriate measurement methods as these are both sources of uncertainty. Sampling concerns the strategy of extracting information on point patterns in a real life situation, whereas measurement is the technical realization of the data collection approach. Sampling is a traditional area of statistics and many useful methods have been developed in the literature. Recently, measurement technologies have Undergone rapid development such that more and more extensive and high-quality point pattern data have become available.

### III. IMPLEMENTATION OF PROPOSED METHOD

Retail is a statement which expresses sentiment towards some product, service, movies or even sentiment about a particular person. In today’s world, taking retail from others is rapidly increasing in every other field. For example, if someone wants to buy a laptop from online site, that person will first reads reviews which are submitted by other customers. If that review contains the positive comments then only other customers are likely to buy that product. This relation shows relativity between retail words and retail target. The topics are nothing but the features or the attributes of the object, on which customers are likely to express their retail. In this paper we represent, how we are dealing with the topical relation in our work and how this topical relations are useful in future. These are called retails which are valuable in the decision-making process. However, to get benefits from these accumulated retails, the contents should be extracted in to features such as “foods”, “services”, “environment” in the restaurant domain and analyzed properly since those retails are written in complex sentences and in the row text format. Information analysis algorithm (IAA) so this technique used to all users easy to access of the data and its easy maintenance of a process as previously mentioned we utilize the favor of intensifiers in our work and we also detect adverbs and adjective intensifiers in the sentences.



#### 3.1 Retail Big basket proposed diagram

To do that, we need two dictionaries including adjectives and adverbs each with polarity labels. The importance of using the intensifiers is the difference in the amount of satisfaction or emotional load that is transmitted to the reader. For example, the sensational mood sentences "the battery is a bit weak" and "the battery is very weak” is obviously not the same so it should be considered in the models.

#### 3.1 Fuzzification Logic Interface Model

Data fuzzification process parameters are performed to determine benefits. It conforms to the horizontal axis's input boundary and can be obtained by projected vertically above the maximum of the membership function. There are



many factors responsible for multiplying a product. The components used in the vague logic model for land detection and forecasting are temperature (TR), humidity, precipitation (HP), light (LT), wind (May), and precipitation (radio frequency). These factors are fuzzy logic input variants to create a fuzzy logic model, and the output parameter is basket. attribute data values are evaluated, and absolute values are converted through the ambiguous interface. The fuzzy interface value, as its input is an advanced fuzzy evaluation method.

The Fuzzy set of the universe of Discourse X is represented as an important figure for each participant Enter. It is defined as  $\mu_R: X \rightarrow [0, 1]$ , where X is fitted to the middle 0 and 1. Each of these processed inputs with the weight attached indicates the value of the functions attached to the middle, and finally an output response is found.

$$\mu(x) = \frac{x - R_1}{R_2 - R_1} \text{ ----- (1)}$$

$$\mu(x) = \frac{R_3 - x}{R_3 - R_2} \text{ ----- (2)}$$

The Membership Function (MF) block of temperature and the rules for defining the selected input parameters above are as follows:

Example: Temperature (x)  $\frac{x-10}{5}$ , if  $x < 5$  "Moderate"  
 $\frac{20-x}{5}$ , if  $5 \leq x < 10$  "Easy"

If  $10 \leq x < 15$  "severe"

If  $x \geq 15$  "Very severe."

### 3.2 Fuzzy time prediction

In the Time series data, Fuzzy time prediction of the proposed method is a step-by-step process. It is evaluating in the time series prediction of the fuzzy logistics method.

Let  $X = \{x_1, x_2 \dots x_n\}$  Historical time-series data

Step 1: Determine the values of the sets X

The maximum and minimum values of historical time series data, respectively: U max and U min. Then, it is defined us,

$$X = [U \min - U_1 + u_1 \quad \max - u_2] \text{ ----- (3)}$$

Step 2: Determine the length of the series

(i) Calculate absolute difference between the values  $X_{i+1}$  and  $X_i = \{i=1, 2, \dots, n-1\}$  First the difference, then calculate the average first difference.

(ii) Take half the average length.

(iii) The basic mapping lies in the detectable range and the found length of the base

(iv) According to the allocation basis, the length of the circle is used for the corresponding TL

**Table 1: Analysis of Time length between the range and base**

Range P.U	Base P.U
0.1-1.0	0.1
1.0-10	1
11-100	10
101-1000	100

Table 1 shows the range and base values for the fuzzy time prediction methods.

Step3: Partition the set values

Partition the set values of U and m is an equal length of the  $u_1, u_1 \dots u_m$ , the partitioning calculated as  
 $M = [(U \min + u_1) - (U \max - u_2)] / TL \text{ ----- (4)}$

Step 4: Construct the fuzzy sets  $R_1, R_2 \dots R_3$  in the suits the values of  $u_1, u_2 \dots u_3$ ,

$$\text{If } x_i = x \in R_j \text{ ----- (5)}$$

$$R_j = \sum_{i=1}^n \mu_{R_j}(x_i) / x_i \text{ ----- (6)} \quad \{i=1, 2, \dots, N \ \& \ j=1, 2, 3 \dots m\}$$

Step5: Fuzzing time-series data

Fuzzy boxes fuzzily time series data, and the data membership is large is the fuzzy set of  $R_j$  (1, 2, and 3...n)

Step6: In data on the current state of the Fuzzy Logic Relationship (FLR) organization and the Fuzzy Logic Relationship Group (FLRG) is  $R_j$  in the next state is  $R_{s1}, R_{s2}, R_{s3} \dots R_{sn}$  and fuzzy logic group if  $R_j \sqsubseteq R_{s1}, R_{s2}, R_{s3} \dots R_{sn}$

Step7: Calculate the cultivating time series



If the cultivating time series fuzzy logic group if  $R_j \perp R_{s1}, R_{s2}, R_{s3} \dots R_{sn}$ , time value of cultivating is,  $M_{s1} + M_{s2} + M_{s3} \dots M_{sn} / N$ .

Step 8: Predictive method ambiguous time is calculated by cultivating the Mean Square Error (MSE) and Average forecasting Error (AFE) attribute procedure to evaluate the performance. Average square error or average prediction error, minus a good prediction method. The average square error is defined as the average prediction error:

$$MSN = \sum_{i=1}^n [(actual\ value)_i - (forecasting\ value)_i]^2 / N \text{ ----- (7)}$$

$$\text{Average forecasting Error} = \text{sum of forecasting error} / \text{number of errors} \text{ ----- (8)}$$

$$\text{Cultivating in \%} = [\text{forecasting value} - \text{actual value}] / \text{actual value} * 100. \text{ ----- (9)}$$

method is vague change and great application of membership policies. First, obscure boxes are used to express various factors similar to those indicated in the rating objects mentioned above. Next, it is used to calculate the rating factor rating team and weight. Finally, a fuzzy linear transformation is used to obtain fuzzy rating results. This method can be used to solve many multi-factor complex and uncertain problems.

Evaluation index set and evaluation set Given two limited fields, R represents a comprehensive rating index panel, S represents the rating package:

$$R = \{r_1, r_2, r_3 \dots r_n\} \text{ ----- (10)}$$

$$S = \{s_1, s_2, s_3 \dots s_m\} \text{ ----- (11)}$$

The membership Evaluation matrix is the degree of membership of an index to a comment. If the membership of the index  $R_a$  and the comments  $S_b$  is a symbol as  $X_{ab}$ , then the  $A_{th}$  index of the membership is expressed as:

$$R_a = \{R_{a1}, R_{a2}, R_{a3} \dots R_{aj} \dots R_{am}\} \text{ ----- (12)}$$

$R_{a1}$  determines the value of R,  $R_{a2}$ , and  $R_{a3}$  is a single factor rating vector ... but it is a classic function. Then the membership size is normalized to get the single factor rating vector. And set the rating team R by all single factor types

$$\mu(x) = 1/2 + 1/2 (\sin \pi / R - S [(x-s+r/2)]) \text{ ---- (13)}$$

$$\mu(x) = 1/2 - 1/2 (\sin \pi / R - [S(x+a-b/2)]) \text{ --- (14)}$$

In the evaluation matrix constructing the size variation of the fuzzy logic comprehensive method, this method evaluating the Multiple factors for the function.

#### IV. RESULT AND DISCUSSION

The results and performance of the proposed implementation effects will be adjusted and tested and trained attribute procedure data sets. Classification and reproduction for performance evaluation are conducted to test the accuracy, Accuracy, recall, and time complexity measures obtained during the execution phase. The true and false position calculates test case measurement the error rate at which the text processing process is performed.

**Table 2 simulation parameters**

Parameters used	Values processed
Input dataset	Text Value dataset
Simulation tool	Python
Number of data	100
Dataset	Attribute report data set.

Table 2 describes the compile attribute and attribute procedure databases that have been processed to test the functions of the proposed system.

#### 4.1 Analysis of Accuracy

Dataset is done under percentages that can predict basket data. The beginning of attribute procedure vacuums is surrounding and advance notice. Thus, a fuzzy method analysis basket accuracy detailed will result in the prediction data set.

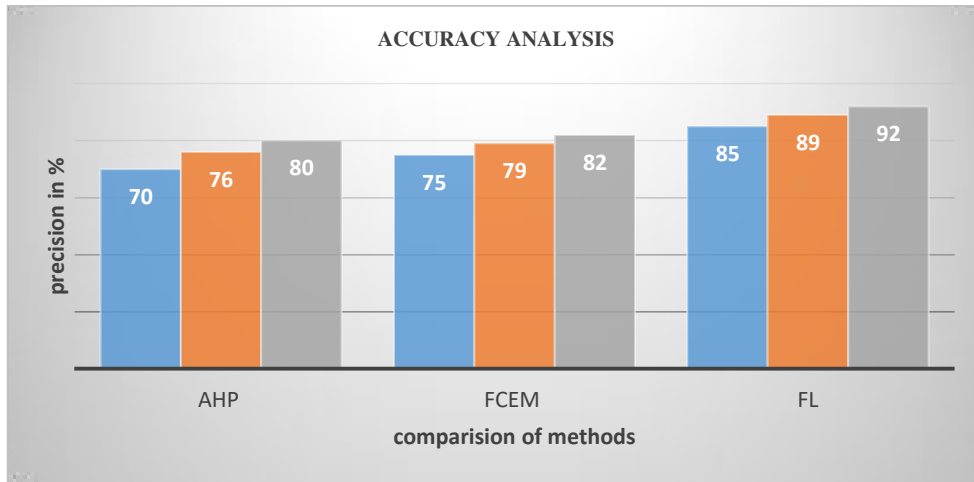


Figure 3: Analysis of Accuracy

Figure 3 describes the True positive accuracy ratios, once calculated AHP 80%. And FCEM produces 82% higher efficiency than 92% subject matter rating rates other than the FL proposed implementation methods.

#### 4.2 Analysis of Recall

The incorrect projection set size can be a function of different basket planting functions. As a function of set size, various factors are expressed. The impact of project deviation exposure intensity on recalled errors. (Positive or negative) the predicted sequence should recall the value.

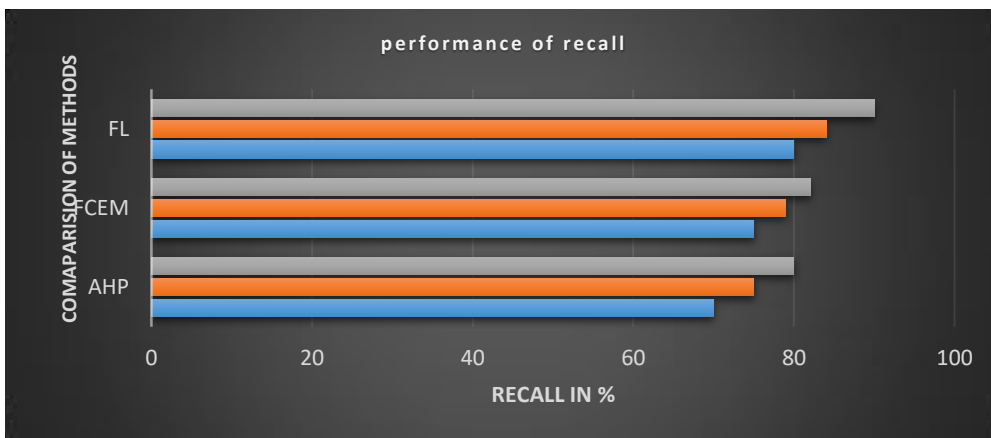


Figure 4: Analysis of Recall

Recall Analysis Application the above data belong to different datasets. The data blocks produced different test values that were in different ways. AHP is 80% the current method ratio, and FCEM is the calculated 84% of the rate. The proposed system is more reminiscent than other methods if the FL 90% is higher.

#### 4.3 Analysis of F-Measure in Accuracy and recall

The F score also gives a score of F1, which is called the F measure and is a measure of the accuracy of the experiment. The F-score reaches the best value for the correct accuracy and recalls values, and the worst F value, which means the lower the accuracy and the lower the recall value.

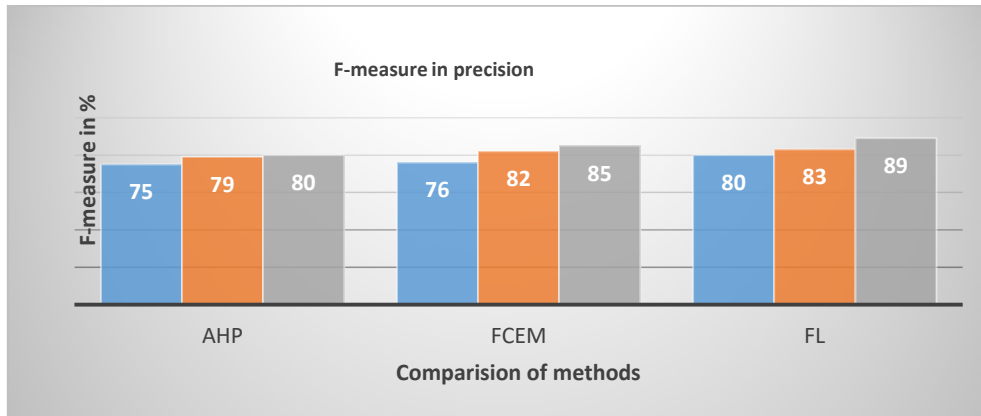


Figure 5(a): Analysis of F-measure Accuracy

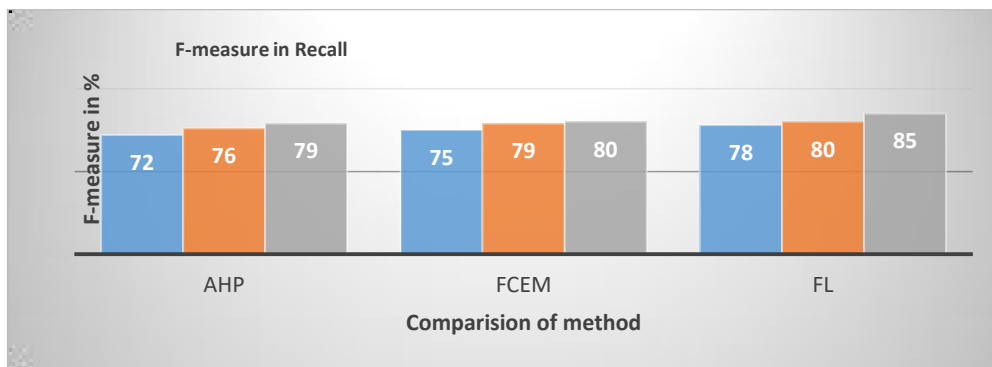


Figure 5(b): Analysis of F-measure Recall

Figure (a) (b) describes the values of frequent measurement for Accuracy and recall. In the proposed method, FL of Accuracy is 89%, and the recall rate is 85%.

#### 4.4 Analysis of the Time complexity

Cultivating is a complex time that comes with two factors that come and predict time change. When FL minimizes accurate detection results, the analysis time of seasonal changes is an excellent method for predicting the crop's warming temperature. Complete the task processing time according to the introduction of the action to it.

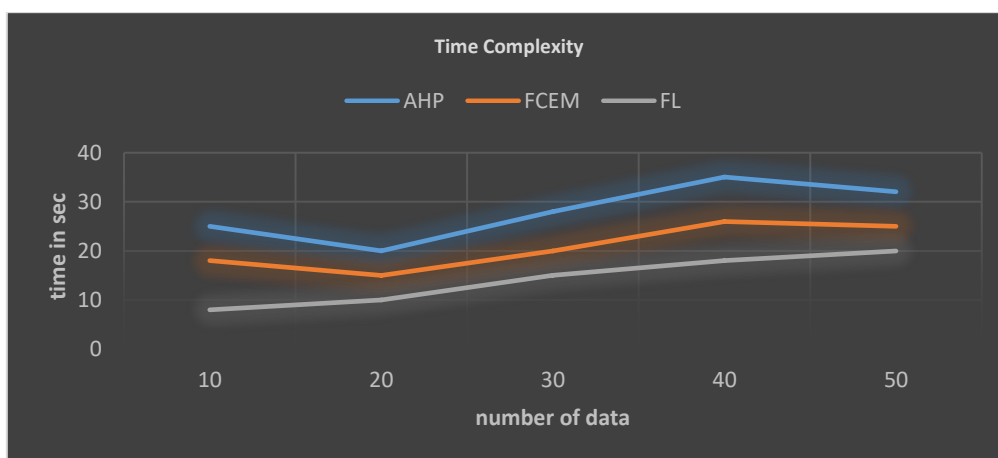


Figure 6: Analysis of the Time Complexity



Figure 6 describes the time complexity of the number of records calculates the sec, calculating the timeline is evaluating the minimum of 50 records AHP is 32sec, FCEM 25 sec, and FL in 20sec. In the proposed method reduces the time complexity.

## V. CONCLUSION

The retail Big basket used process of online data collection all information easy to collecting and access the process user side it's a data structure of meaning full information process. A retail measure using big basket rules associates and snippets retrieved from a spatial database from datasets. The co-occurrence measures were computed using datasets she helped while researching and writing my paper. An information analysis algorithm too easy to data access and identify of datasets. Without her efforts and contribution, this work can be completed successfully. Also I like to thank my college who gave us access to the library and research facilities. Was proposed to identify different lexical patterns that describe the same semantic relation. Experimental results on spatial benchmark data sets showed that the proposed method outperforms various baselines as well as previously proposed soa similarity measures, achieving a high correlation with human ratings. Moreover, the proposed method improved the frequent score in a community big basket.

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