(12) PATENT APPLICATION PUBLICATION   (21) Application No.202241041430 A

(19) INDIA

(22) Date of filing of Application :19/07/2022   (43) Publication Date : 29/07/2022

(54) Title of the invention : CUSTOMER'S EARNINGS, SAVINGS, AND FINANCIAL HISTORY-CLASSIFICATION USING MACHINE LEARNING TECHNOLOGY

(51) International classification :G06Q0030020000, G06N0020000000, G06Q0030060000, G06Q0010040000, G06N0020200000	(71)Name of Applicant :
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(86) International Application No :PCT// Filing Date :01/01/1900	
(87) International Publication No : NA	
(61) Patent of Addition to Application Number :NA Filing Date :NA	
(62) Divisional to Application Number :NA Filing Date :NA	

(57) Abstract :
The application of consumer transaction data to predictive models associated with merchant segments, which are derived from the consumer transaction data based on co-occurrences of merchants in sequences of transactions, is what provides predictive modelling of consumer financial behaviour, including determination of likely responses to particular marketing efforts. This is accomplished by providing consumer transaction data to predictive models associated with merchant segments. Merchant vectors are used to represent individual merchants, and they are arranged in a vector space according to the extent to which the merchants share occurrences with one another. The formation of merchant segments requires the use of supervised segmentation on merchant vectors. Based on the customer's prior purchases, merchant segment predictive models make projections of a consumer's future spending in each merchant segment. These predictions are made for the consumer as a whole. The spending habits of individual customers are broken down into merchant categories and compared with those of other customers in the same merchant category in consumer profiles. Consumer profiles sometimes contain customer vectors, which are essentially summary vectors that are produced from the businesses that the consumer shops at most often. When applied to customer vectors, nearest-neighbour analysis allows for the generation of predictions on consumer behaviour.

No. of Pages : 24 No. of Claims : 3