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Keywords

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RESEARCH ARTICLE

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1. Introduction

Consumers typically shop at multiple stores to meet their demands and buy different things. This challenges all retail shops to ensure loyal and repeat customers. Retail has mostly identical products with similar quality and value thus, a retail store must differentiate its products/services to sustain consumer loyalty (Chahal & Bala, 2010). A retail store needs client loyalty and repeat purchases to compete effectively, improve its financial and marketing capabilities, and connect with customers (N. Sharma & S. K. Sharma, 2015). An increase in loyalty should improve customer retention, repurchase intention, and, behaviour, as well as the company's long-term profitability and relationship with customers (Astuti & Nagase, 2014). Repeat purchases and loyalty boost a company's profitability and market performance. As existing consumers buy more, they help attract new ones (Agarwal & Mehrotra, 2018; J. J. Kim et al., 2020; J. Liu & Ansari, 2020). With rising competition and more customer choices, loyalty programs are becoming more important because they boost client retention and improve a company's finances (Chaudhuri et al., 2019; Hutchinson et al., 2015; J. J. Kim et al., 2020; J. Liu & Ansari, 2020). Retail stores use loyalty programs to improve consumer loyalty. Since loyalty programs are employed across industries, their relevance in developing client relationships is significant for businesses (Leenheer et al., 2007). When customers see loyalty programs'

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higher value, the charm of being a member improves, and the likelihood of customers joining rises (Criscione-Naylor, 2018). An excellent loyalty program design can increase customers' repeat purchase behaviour and transform more consumers into program prospects, which can increase the company's value in the customers' eyes (Gandomi et al., 2019). Previous research has shown that just being a loyalty program member does not boost customer loyalty. To boost the effectiveness and results of loyalty programs, organisations must understand what customers value in them and continuously monitor, analyse, and revise them. The effectiveness of a company's customer loyalty program will determine its success (Gandomi et al., 2019; S. Yang et al., 2018). Thus, analysing the benefits customers perceive in a company's loyalty program can help develop a more effective, acceptable, and profitable program (Omar et al., 2015).

The first phase of the study used Yi and Jeon's (2003) conceptual model to identify different groups of Indian customers based on their perceptions of retail loyalty programs. The second half of the study tries to determine if characteristics other than loyalty program membership improve customers' tendency to be frequent and repeat purchasers (Karunaratna & Kumara, 2018; Konar et al., 2019). Customer demographics are one such influence (Sukhari et al., 2019; M. X. Yang et al., 2019) as previous studies suggest that individual qualities, socioeconomic factors, and demographics influence customers' shopping behaviour (Prasad & Aryasri, 2011; Watchravesringkan & Punyapiroje, 2011). Understanding how demographics influence customer loyalty and repeat purchases can help merchants and companies better position themselves and more effectively target customers. Demographic variables assist in formulating efficient marketing strategies since they are easy to assess and implement and are linked to consumer buying behaviour. Customer behaviour analytics is becoming highly popular (Singh, 2015). Thus, by using the machine learning approach of decision trees, the current study attempts to determine whether and how demographic parameters influence customers' intention to be consistent and repeat customers if they are already loyalty program members.

The current research identifies different customer groups based on their assessment of loyalty program benefits. The study also considers how demographic characteristics affect retailer loyalty for loyalty program users which has been an understudied area of research.

The paper begins with an introduction followed by a literature review. The study's objectives and methods are thereafter given and finally, managerial and theoretical consequences, and future research directions are discussed.

2. Review of literature

2.1. Loyalty programs

A loyalty program can boost customer retention and loyalty, which can increase a company's profitability and performance (Arbore & Estes, 2013; Chaudhuri et al., 2019; Vilkait-Vaiton & Papien, 2016). Though loyalty programs have been described in many ways by researchers across industries (Dorotic et al., 2021), for the present study, the word has only been utilised in the context of loyalty programs for department stores wherein, it's a rewards program for past and present purchases (S.-H. Kim et al., 2013; Sayman & Hoch, 2014).

2.2. Perceived benefits of loyalty programs

Loyalty programs provide their members many rewards and benefits (Steyn et al., 2010) and can boost customer retention if customers regard these programs as adding value for them (Y. Y. Liu, 2007). The loyalty program can only achieve its goals if clients perceive the benefits presented by the companies (Agarwal et al., 2022; Mimouni-Chaabane & Volle, 2010; S. Yang et al., 2018).

Based on the original framework related to the benefits of loyalty as proposed by Yi and Jeon (2003) along with the structure of advantages given by Mimouni-Chaabane and Volle (2010), the current study analyses customers' perception regarding the different categories of benefits accruing from loyalty programs. The benefits are categorised as utilitarian benefits, symbolic benefits, and hedonic benefits which are financial, appreciation & communal, and exploration & entertainment benefits respectively.

2.3. Utilitarian benefits

Utilitarian advantages include practical, instrumental, or cognitive qualities that meet customer needs (Chiu et al., 2014). Along with meeting customer needs, utilitarian benefits offer financial and convenience benefits (Chai et al., 2015; Mimouni-Chaabane & Volle, 2010; Omar et al., 2015; S. Yang et al., 2018). The loyalty program reduces customers' efforts by storing their preferences and targeting them with relevant offers. Thus, customers save time, energy, and money by reducing search and decision costs and enhanced shopping convenience (S. Yang et al., 2018).

2.4. Symbolic benefits

Symbolic advantages address customers' social requirements for approval, acceptance, and self-worth (Mimouni-Chaabane & Volle, 2010). Social advantages are tied to clients' self- and social-image goals (Gorlier & Michel, 2020; Kang & Shin, 2016; Omar et al., 2015). Loyalty programs assist customers in meeting these objectives by recognising and rewarding consumers based on their value to the firm (McAlexander et al., 2002). Customers can form social relationships with other loyalty program members. This gives them a sense of belonging to an exclusive group (McAlexander et al., 2002).

2.5. Hedonic benefits

Loyalty programs' hedonic rewards include discovery and amusement (Chai et al., 2015; Mimouni-Chaabane & Volle, 2010; Omar et al., 2015). Loyalty programs encourage customers to try new items, be curious about new offers, and so on (Chai et al., 2015; Mimouni-Chaabane & Volle, 2010; Omar et al., 2015). Collecting and redeeming loyalty program reward points can be exciting for customers and provide hedonic benefits (Mimouni-Chaabane & Volle, 2010; Montoya & Flores, 2019).

2.6. Store loyalty

Loyalty to a store is customers' tendency to buy from it (Jarratt, 2000). It can also be shown by the number of store purchases made by the customers (Hozier & Stem, 1985). Customers' attitudes and behaviours towards a retail store are influenced by their relationship with the store, which depends on demographic and psychographic characteristics (Sukhari et al., 2019). Understanding customer behaviour influences retail store loyalty and one relevant variable for understanding this behaviour is demographic characteristic wherein, understanding demographics and their impact on repeat purchases is crucial. The following sections explain the demographic factors included in the study.

2.7. Age and loyalty

Age as a demographic characteristic influencing the loyalty level of a customer has not been widely researched in the past. Some studies measure consumer loyalty by age (Criscione-Naylor, 2018; Patterson, 2007; Sukhari et al., 2019) wherein, it has been found that older customers are more loyal (Daughtrey et al., 2013). It has been observed that older customers value social benefits, confidence, and special treatment benefits from loyalty programs (Homburg & Giering, 2001).

Given the limited research on the effect of age on customer loyalty, the current study aims to determine how age affects customers' propensity to return to a store when they have a loyalty program membership of that store.

2.8. Gender and loyalty

Gender can be considered to be a group of traits that distinguish males from females. It's one of the basic ways to segment the market, since gender affects how consumers respond to marketing campaigns (Lee & Lee, 2016; Mehtap et al., 2017; Ramadani, 2015; Ratten, 2016; Sukhari et al., 2019). Because of different reactions, understanding the effect of gender differences is crucial in marketing strategy (Heinrichs et al., 2016; Lee & Lee, 2016). Several studies have examined whether gender affects consumer loyalty (Melnyk et al., 2009) and have found that gender disparities in loyalty include variances in loyalty degree, loyalty development time, and loyalty incentives preference (Kurtulus & Ertekin, 2015; Manrai, 2016; Rialti et al., 2016; Stan, 2015). Females are more loyal than males and take longer to become faithful, according to studies. Men are more receptive to status-related rewards, whereas women are more receptive to personalization-related benefits (Stan, 2015; Vilches-Montero et al., 2018). Also, men are more loyal to a store chain than women (Audrain-Pontevia & Vanhuele, 2016).

The current study attempts to discover whether gender disparities are related to customers' intention to make repeat purchases in a store whose loyalty program they are a member of.

2.9. Lifecycle stage and loyalty

The key changes in a person's life cycle result in changes in consumer behaviour, according to researchers (Trinh & Wright, 2011). Hence, it can be expected that if changes in the life cycle stage of a customer affect his behavior, it might affect his/her loyalty as well (Putler et al., 2007). According to studies, customers in later life cycle stages are more loyal (Gilly & Enis, 1982; Murphy & Staples, 1979).

However, there is a lack of studies associating the life cycle stage with store loyalty. This study examines whether and how consumers' life cycle stage affects their propensity to make repeat purchases in a store wherein they have membership of the store's loyalty program.

2.10. Income and loyalty

Research has shown inconsistent results while studying the association between income and loyalty (Evanschitzky & Wunderlich, 2006; Khare, 2014; Patterson, 2007; Redda & Surujlal, 2019; Reisenwitz & Gupta, 2016). Studies reveal that price-sensitive customers are less loyal, and vice versa. Income increases loyalty (Patterson, 2007) and higher-income clients are less committed and less loyal, according to Evanschitzky and Wunderlich (2006) and Beneke (2013). On the other hand, some experts say income doesn't affect customer loyalty or happiness (Ferreira et al., 2014; Laukkanen & Pasanen, 2008; S. K. Sharma, 2015). Researchers have explored the impact of demographic factors such as income on store loyalty (Jarratt, 2000). The current study builds on prior research to examine the relationship between income and store loyalty.

2.11. Education level and loyalty

Few researches have studied how customer education affects loyalty (Redda & Surujlal, 2019; S. K. Sharma, 2015; Suh et al., 2015) wherein, some studies demonstrate that custoemrs with higher education are more loyal about services, especially when the technology being used in the product or service is of a high level (Reynolds et al., 2006). Customer education's effect on loyalty has also been studied (Ennew & Binks, 1999) and Bloemer et al. (1999) and Wong and Sohal (2003) discovered that as consumers acquire more education, their knowledge of a company and its products/services improves, and they become more loyal. To add to existing literature, the current research analyses the association between customer education and store loyalty.

2.12. Occupation and loyalty

Our review of previous literature unearthed very few studies that have verified the association amid occupation and loyalty level (Ramesh & Poornima, 2016). The studies were also not very clear about loyalty being affected by occupation. The current research aims to contribute to this area by analyzing if and how occupation affects customers' loyalty towards a retail store.

3. Objectives of the study

The primary aim of the current study is to find out different groups of customers based on their perception of loyalty program benefits and to identify their demographic profile. The study also analyzes whether and how demographic variables of a loyalty card holder influence his/her inclination to be a regular customer of a departmental store. Primarily the research focuses on.

- Identifying the different benefits that are associated with loyalty programs.
- Classifying Indian customers based on their perception of benefits associated with loyalty programs.
- Ascertaining the demographic features of the clusters classified
- Identifying the effect of demographic factors on a customer's decision of becoming a regular customer of a departmental store given that he/she is already a loyalty program member of that store.

The study's findings will help discover the demographic factors that make a consumer (a loyalty card member) regular and vice versa. Companies can use clusters to determine which customers will respond best to loyalty programs. The study will help retailers discover and target clients whose profiles match that of loyal cardholders.

4. Research design

The study collected primary data from four department store customers with the respondents being limited to the store loyalty program members. Responses were collected using a questionnaire based on factors from Mimouni-Chaabane and Volle's scale for detecting customers' perception of loyalty program benefits (2010). Initial scale items were rephrased for the Indian context. Gender was used as the control factor for quota sampling and four-point likert scale was used for capturing the responses of the participants with 1 = strongly disagree, 4 = strongly agree on a modified Likert scale. Using a four-point Likert scale eliminated respondent indecision (by eliminating the neutral point). Exploratory Factor Analysis (EFA) was used to analyze the fundamental associations among the different items and to categorize them into groups. Cluster analysis was then used to classify customers based on their perception of loyalty program benefits. Participants also rated importance attached to loyalty program in becoming a frequent store customer wherein, highly unimportant, unimportant, important, and highly important were the alternatives specifies. 407 questionnaires were used to evaluate and interpret the findings after removing incomplete ones. To apply machine learning techniques to this data, collected data capturing importance attached to a loyalty program membership for becoming a regular store customer was recoded into unimportant and important by taking 'highly unimportant' and 'unimportant' together as unimportant and 'highly important' and 'important' together as important.

Factor analysis reduced the number of items in terms of the perceived benefits of loyalty programs by customers. Cluster analysis helped segment cusotmers depending on their level of benefit perception agreement based on extracted and tagged components. Cluster analysis also gave an insight into the demographic characteristics of participants in the different clusters. Finally, the machine learning technique, C&RT, was used examine which demographic features cause customers to consider loyalty programs as important in becoming regular customers.

C&RT, or a Decision Tree, helps model data. Non-parametric C&RT makes no assumptions regarding population distribution and produces tree splits depending on significant criteria to determine the correct response variable. The decision tree method wraps an embedded method to build tree splits. The tree technique uses many feature selection methods to retrieve each node's most essential variable. The most essential predictor of reaction is split near the tree's root, and the less important is pushed to the end. To prevent overfitting, pruning of the tree removes nodes that don't provide information.

Cronbach's alpha internal consistency approach validated data reliability as it came out to be .846. As the model's variables were reliable (above .6), further analysis was done (George and Mallery, 2003; Kline, 2005).

5. Analysis and findings

5.1. Identifying the different perceived benefits associated with loyalty programs

The Kaiser-Meyer-Olkin measure of sample adequacy and Bartlett's Test of Sphericity were used to determine whether factor analysis on perceived benefits was adequate. As KMO (.848) was greater than .5 and Bartlett's Test was significant (.000), the sample size was deemed appropriate for factor analysis. As one of the statements was cross-loading on the other factor, it was removed from the final factor analysis to arrive at the above-stated values.

Kaiser varimax rotation factor analysis with normalization based on eigenvalues greater than one yielded four components that explained 71.5% of the data variance. Factor 1 included comments like "Loyalty Program (LP) membership helps me spend less for more (.854); LP membership helps me save money and gain incentives for spending (.809); LP membership lowers my financial cost of purchasing (.779); LP membership helps me save time and effort cost (.714)." Under factor 1, the statements describe the financial benefits of a store's loyalty program and was "Financial Benefits".

Factor 2 included statements like "LP membership encourages me to discover new products of the same brand (.839); LP membership encourages me to try new products (.771); LP membership makes purchases enjoyable due to the points system (.771); Redeeming points through LP membership is enjoyable and satisfactory (.661)." Benefits related to being part of a community and enabling bonding with other people was reflected in the statements under factor 2, hence, factor 2 was named as "Social Benefits".

Factor 3 included comments like "LP membership reflects my desired social image (.879); LP membership makes me feel like I belong to a society with shared values (.844); LP membership strengthens my connecting with the company (.807)." Factor 3 statements indicate loyalty program members' openness and willingness to try new products and thus, was named "Discovery and Entertainment Benefits".

Factor 4 included statements like "If I'm an LP member, the company fulfils my expectations more (.833); Being an LP member makes the company take better care of me, which makes me happy (.832)." Statements under factor 4 depict a perception of greater satisfaction derived as a result of being a member of loyalty programs. And hence was named "Satisfaction Derived".

Cluster analysis was used to group respondents based on their perception of loyalty program benefits. Hierarchical cluster analysis was used to determine the number of data clusters. The output suggested a 3-cluster solution, therefore, k-means cluster was applied for a 3-cluster solution. Table 1 shows the cluster centres and ANOVA findings. All factors were significant at 5% ANOVA level. Each cluster's final cluster centre (Table 1) gives the mean value of each factor.

Cluster 1 indicates strong customer agreement with the four factors. This cluster consists of customers who value department store loyalty programs highly. Since this cluster finds loyalty programs advantageous and is likely to join one, it is

Table 1. Cluster centers and ANOVA.

	Cluster		
	1	2	3
F1	3.57	2.59	2.28
F2	3.37	2.96	2.42
F3	3.37	2.98	2.41
F4	3.23	2.96	2.15

ANOVA

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	Df		
F1	49.572	2	.170	404	290.940	.000
F2	27.090	2	.202	404	134.272	.000
F3	28.038	2	.255	404	110.020	.000
F4	41.327	2	.225	404	183.419	.000

called 'prospects' Companies can convince this demographic group of customers to join loyalty programs by emphasising and reinforcing the benefits of the program.

Cluster 3 demonstrates respondents' low perception of loyalty program benefits. They're not persuaded that loyalty schemes benefit customers or give value. This cluster may be called 'suspects' since its consumers are unlikely to join a loyalty program because they don't see many benefits in doing so. Thus, organisations can either try to increase their knowledge of loyalty program benefits or ignore these people.

Cluster 2 respondents perceive loyalty programs more favourably than average. Their perception of the benefits isn't as high as cluster 1 nor as low as cluster 3. Thus, respondents in this cluster aren't totally convinced of loyalty program benefits. This cluster is dubbed 'unclear' because customers are uncertain of loyalty program benefits. This cluster perceives loyalty program financial rewards to be the least. Companies can target this cluster if they can convince clients of loyalty program benefits.

5.2. Ascertaining the demographic features of the clusters classified

Cluster 1 consumers are most likely to be loyalty program prospects, whereas cluster 3 customers are least likely to become loyalty program members based on their perception of benefits. Cluster 2's reaction to loyalty program membership is uncertain. Cluster 1 is the most promising for organisations looking to expand loyalty program participation, thus understanding its demographics can aid companies in their marketing and targeting efforts. Table 2 shows the demographics of all the three clusters. Cluster 1 respondents, who are likely loyalty program users, will be analysed in detail.

5.3. Identifying the effect of various demographic factors influencing customer's choice of becoming a regular customer

Machine learning techniques of feature selection followed by classification and regression tree (C&RT) were used to develop a model to investigate the effect of demographic variables on loyalty program holders' likelihood of becoming frequent retail customers (Agarwal et al., 2016; Agarwal & Mehrotra, 2020; Khandoker et al., 2017). The six input variables were first analysed using feature selection which identified the most essential variables to predict the outcome under study (Chandra & Ravi, 2009; Mehrotra & Agarwal, 2009). Six input variables were utilised to predict if a loyalty card member would become a regular customer. Lambda, a measure of association reflecting error reduction, was utilised to select features for target value prediction. A score closer to 1 suggests that the input variables can better predict the output variable, while 0 indicates that the predictors provide no relevant information about the target variable. All six predictors in Table 3 significantly predict the target variable and hence, these six variables were used as model inputs.

To build and formulate a predictor model based on demographic characteristics affecting a customer's decision to become a regular customer, provided a customer holds a loyalty program, a machine learning technique, C&RT, was applied to the six input variables (gender, age, income, education, occupation and life cycle stage) and one output variable (LP as a factor in becoming a regular

Table 2. Demographic characteristics of the respondents in Cluster 1, 2 and 3.

	Cluster 1	Cluster 2	Cluster 3
Age			
15–25	26.88%	32.12%	47.65%
26–40	46.24%	47.88%	38.26%
41–60	23.66%	15.15%	8.05%
61 & Above	3.23%	4.85%	6.04%
Gender			
Male	63.44%	50.91%	44.97%
Female	36.56%	49.09%	55.03%
Monthly Household Income			
<10,000	3.23%	11.52%	15.44%
10,001–25000	32.26%	34.55%	42.28%
25,001–45000	47.31%	45.45%	33.56%
>45,000	17.20%	8.48%	8.72%
Education			
Under Graduate	5.38%	16.97%	23.49%
Graduate	39.78%	30.91%	30.87%
Post Graduate	49.46%	47.27%	40.27%
Any Other	5.38%	4.85%	5.37%
Occupation			
Student	15.05%	25.45%	38.26%
Housewife	10.75%	12.73%	15.44%
Employed in the private sector	37.63%	28.48%	17.45%
Employed in the government sector	26.88%	23.64%	20.13%
Self Employed	9.68%	9.70%	8.72%
Life Cycle Stage			
Unmarried	30.11%	46.67%	65.10%
Married with a child below 6 yr.	32.26%	26.67%	16.11%
Married with a child between 6 and 18 yr.	23.66%	13.33%	8.05%
Married with Employed child	13.98%	13.33%	10.74%

customer (FRC)). This led to the building of the decision tree as displayed in Fig. 1.

Misclassification matrix results indicate a classification model's performance. In the present study, the derived model's forecasting accuracy is 68.7%, according to the misclassification matrix. C&RT if-then-else rules were used to categorise customers based on demographics and loyalty program membership. Table 4 shows C&RT model-building rules wherein, 2 rules classify consumers based on their non-likelihood to revisit a store despite having the store's loyalty program membership, and 6 rules classify customers based on their likelihood to revisit a store while having the store's loyalty program membership. The store should thus, assess, interpret, and focus on nodes 16, 10, and 2 of the 6 positive response rules.

Table 3. Feature selection.

	Rank	Field	Type	Importance	Value
true	1	gender	set	Important	1.0
true	2	age	orderedSet	Important	1.0
true	3	income	orderedSet	Important	1.0
true	4	education	orderedSet	Important	1.0
true	5	LC_Stage	orderedSet	Important	1.0
true	6	occupation	set	Important	1.0

On viewing Table 5 and Fig. 1, it can be seen that node 16, node 10, and node 2 are most productive when it comes to finding out the demographic characteristics of customers who consider loyalty program membership as being important in their becoming repeat and regular customers of the store.

The lift (Fig. 2) provided by the gains table on these nodes increases the likeliness by 1.23 and 1.21 times than otherwise.

6. Findings and interpretation

The current study used EFA, customer profiling by cluster analysis, and C&RT to determine customers who are likely to be regular/repeat customers if they are currently members of store's loyalty program.

Table 2 shows the demographics of the clustered respondents. Cluster 1 respondents are mostly postgraduate males aged 26–40 with a monthly household income of $2500–45000. Previous studies (Lee & Lee, 2016; Mehtap et al., 2017; Palan, 2001; Ramadani, 2015; Ratten, 2016; Stan, 2015; Sukhari et al., 2019; Vilches-Montero et al., 2018) indicate that females are more loyal than males. However, the findings of the current study contradict the

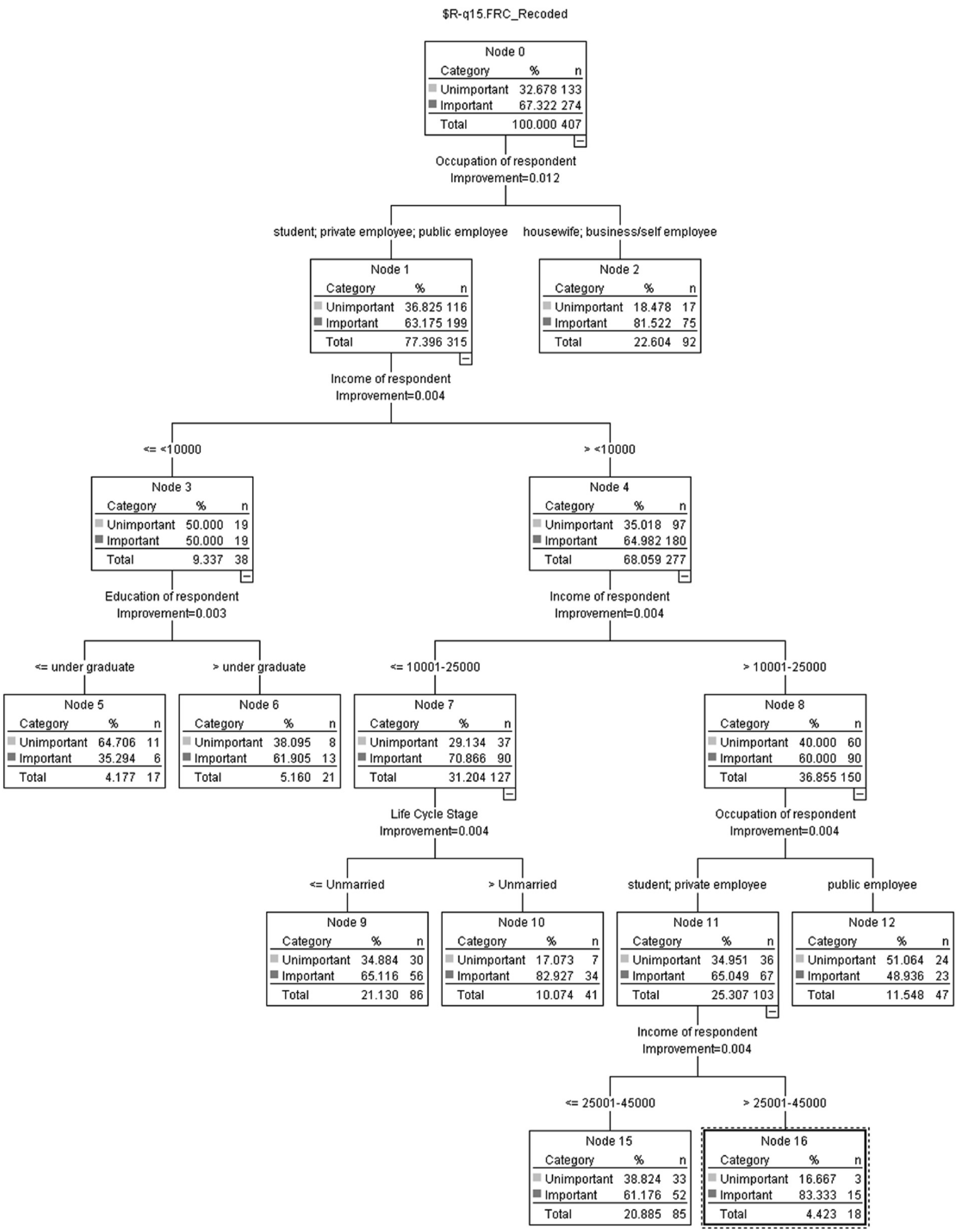

Fig. 1. Decision tree.

earlier findings since males were found to be more receptive to loyalty program benefits. The bulk of respondents in this cluster were post-graduates, which is consistent with Burton (2002) and Reynolds et al. (2006), who found that customers with higher education are more loyal. Earlier studies

Table 4. Rule set for classifying customers.

Rules for 1 - contains 2 rule(s)
Rule 1 for 1.0
if Occupation of respondent in [student private employee public employee]
and Income of respondent in [<10,000]
and Education of respondent in [under graduate]
then 1.000
Rule 2 for 1.0
if Occupation of respondent in [student private employee public employee]
and Income of respondent in [10,001−25000 25,001-45000 > 45,000]
and Income of respondent in [25,001−45000 > 45,000]
and Occupation of respondent in [public employee]
then 1.000
Rules for 2 - contains 6 rule(s)
Rule 1 for 2.0
if Occupation of respondent in [student private employee public employee]
and Income of respondent in [<10,000]
and Education of respondent in [graduate post graduate any other]
then 2.000
Rule 2 for 2.0
if Occupation of respondent in [student private employee public employee]
and Income of respondent in [10,001−25000 25,001-45000 > 45,000]
and Income of respondent in [<10,000 10,001−25000]
and Life Cycle Stage in [Unmarried]
then 2.000
Rule 3 for 2.0
if Occupation of respondent in [student private employee public employee]
and Income of respondent in [10,001−25000 25,001-45000 > 45,000]
and Income of respondent in [<10,000 10,001−25000]
and Life Cycle Stage in [Married with a child below 6 yr. Married with a child between 6 and 18 yr. Married with Employed child]
then 2.000
Rule 4 for 2.0
if Occupation of respondent in [student private employee public employee]
and Income of respondent in [10,001−25000 25,001-45000 > 45,000]
and Income of respondent in [25,001−45000 > 45,000]
and Occupation of respondent in [student private employee]
and Income of respondent in [<10,000 10,001−25000 25,001-45000]
then 2.000
Rule 5 for 2.0
if Occupation of respondent in [student private employee public employee]
and Income of respondent in [10,001−25000 25,001-45000 > 45,000]
and Income of respondent in [25,001−45000 > 45,000]
and Occupation of respondent in [student private employee]
and Income of respondent in [>45,000]
then 2.000
Rule 6 for 2.0
if Occupation of respondent in [housewife business/self employee]
then 2.000

(Beneke, 2013; Daughtrey et al., 2013; Sukhari et al., 2019) found that older clients are more loyal than younger ones. However as per the current study, 26-40-year-olds are more receptive to loyalty schemes. Our study shows that higher-income clients are less committed and less loyal than lower-income customers, which is in keeping with the studies of Evanschitzky and Wunderlich (2006) and Beneke (2013). The majority of positive respondents were found to be private sector employees with children under 6 years old. This contradicts past studies (Gilly & Enis, 1982) that found customers in later life cycle stages to be more loyal. Since earlier research linking occupation to loyalty are scarce, the current study's findings are a substantial contribution. The respondents in this cluster agreed most with factor 1 relating to financial benefits of loyalty programs, followed by social benefits and discovery and entertainment benefits. These clients understand loyalty program benefits and hence, are more likely to join loyalty programs. Thus, retail companies should target them for their loyalty program membership. The male-dominated cluster may be because most Indian households' major earner and

Table 5. Gains table for Category 2.0 (Important).

	Nodes	Node: n	Node (%)	Gain: n	Gain (%)	Response (%)	Index (%)
1	16	18.00	4.42	15.00	5.47	83.33	123.78
2	10	41.00	10.07	34.00	12.41	82.93	123.18
3	2	92.00	22.60	75.00	27.37	81.52	121.09
4	9	86.00	21.13	56.00	20.44	65.12	96.72
5	6	21.00	5.16	13.00	4.74	61.90	91.95
6	15	85.00	20.88	52.00	18.98	61.18	90.87
7	12	47.00	11.55	23.00	8.39	48.94	72.69
8	5	17.00	4.18	6.00	2.19	35.29	52.43

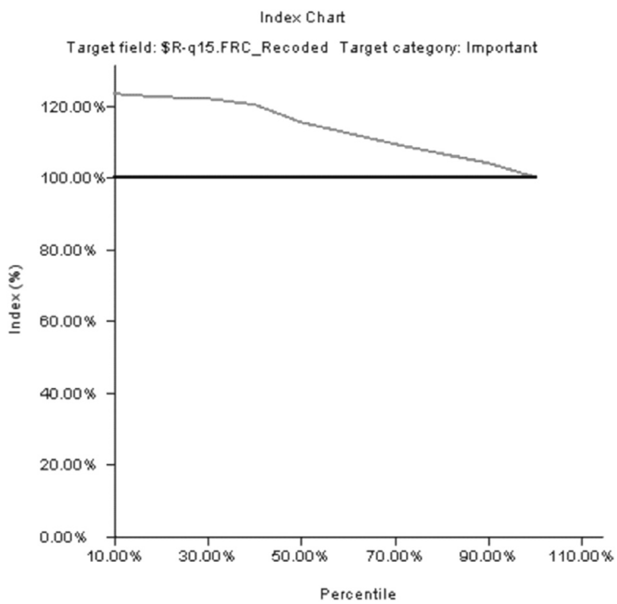

Fig. 2. Lift chart for target category — important.

decision-maker are men. Findings relating to the majority of respondents being in private service and aged 26–40 may indicate that they are in the early stages of their family life cycle, are married, and have young children. Since they don't earn much (2500-$45,000) and don't get many perks as private sector employees, they may be more interested in financial benefits/savings from department store loyalty programs. The majority of the respondents being post-graduates makes them relatively more educated and hence they might be more capable of identifying and evaluating the benefits of a loyalty program. In light of these findings, the demographic profile of prospects that companies should target their promotional messages to should predominantly be similar to the profile of the majority of respondents in cluster 1.

C&RT used occupation, income, education, and life cycle stage to identify respondents as repeat and frequent consumers who value loyalty program participation. C&RT divides occupation into two groups: students and employees (private and public), and housewives and self-employed/businessmen. An intriguing result was discovered on the first split itself (node 2) depicting that if the customer's vocation is self-employment/business or housewives, 81.52% prefer to be frequent or repeat consumers of the store of whom they have taken a reward program membership with a lift of 121.09%. This means records under this node are 1.21 times more likely to be devoted store customers. This is because housewives, regardless of age, education, or life cycle, attempt to save as much as possible and hunt for offers and freebies that give them more value for their money. A businessman takes delight in extracting profit from every penny spent, and loyalty program benefits provide that satisfaction, so he/she becomes a regular customer.

Node 10 has the rule of interest based on gains, tree, and rule 3 for category 2. If a client is a student or a private or public sector employee with a monthly income of less than $25K and is married, 82.9% of respondents would like to be regular and repeat customers of a store for whom they carry a loyalty card, a 123.18 percent increase. This means records under this node are 1.23 times more likely to be loyal customers. The rule may be because these clients feed a family and don't earn much. They regard loyalty cards as a way to save money, whether through cashable reward points, free home delivery, gifts, or incremental reductions. Every penny made or saved adds to the customer's income, so he/she looks forward to more opportunities.

Node 10 has the rule of interest based on gains, tree, and rule 3 for category 2. If the client is a student or a private or public sector employee with a monthly income of less than $25K and is married, 82.9% of respondents would like to be regular and repeat customers of a store for whom they carry a loyalty card, with a lift of 123.18%. This means records under this node are 1.23 times more likely to be devoted store customers. The rule may be because these customers have to take care of a family and don't earn much. They regard loyalty cards as a way to save money, whether through cashable reward points, free home delivery, gifts, or incremental reductions. Every penny made or saved adds to the customer's income, so he/she looks forward to more such opportunities by becoming a loyalty program member.

As the customer's income improves, the loyalty program's appeal and benefits are limited to a few occupations, such as private sector employees. Public sector personnel seem to opt out of loyalty programs as they don't view freebies as social status. As public servants, they may earn allowances for diverse items and services, reducing the appeal of loyalty card cash rewards. The findings suggest shop managers should focus on private sector employees as the income of respondents increases rather than on public sector employees. This is because a private sector customer faces many uncertainties and wants to maximise savings, which boosts his indirect income. This dread of uncertainty encourages private-sector customers to maximise profits on every penny spent. 83.33% of respondents in this category are 1.23 times more likely to reply positively to being frequent customers if they have a loyalty program membership.

An interesting association has been observed between respondents who marked their occupation as students and belonging to any income group. Nodes 16, 11, and 6 and rules 5, 3, and 1 of category 2 show a link when the respondent is a student and a regular store customer with a loyalty program membership. Generation Z is a multi-tasking, multi-personality generation that can handle numerous occupations and assignments at once. They seem to be having aspirations, which seem unfathomable and unachievable to generation X and Y. Some generation Z clients are ambitious and attempt to maximise profits in all they do, therefore they engage in lucrative activities. The same is also reflected in the rule set and decision tree. If the customer is an independent student, it doesn't matter what income category he or she belongs to; the student will always want to optimise output and will be the most willing regular customer for a store if affiliated through a loyalty program. Students, even if not well educated, are more aware and are bargain seekers who understand that loyalty programs lead to financial and convenience benefits. Student sector can be more profitable for retailers to target due to their social activity and tendency to enjoy perks. They like freebies because they think the same increases their income and spending power.

Fig. 2 illustrates the C&RT model's lift chart, which plots the gains table's index %. The lift chart shows model improvement and indicates that by contacting 10% of clients, the predictive model can reach 1.23 times more responders. An increase of an additional 23% in customers through predictive models could be a huge opportunity for the store for increasing its revenue. The chart further suggests that the store should limit its promotional aim to 35% of category 2 customers to maximise results and reduce costs.

7. Implications of the study

A number of useful insights are provided by the current study, which has both managerial and theoretical implications.

7.1. Managerial implications

The study's findings can help organisations create loyalty programs that are more attractive to potential customers. Based on client perceptions of loyalty program benefits, organisations can design and implement more effective loyalty program. Using study results, individuals were divided into three groups. Prospects believe loyalty schemes are beneficial. A company that offers a stronger loyalty program will attract this consumer niche. The findings may help stores decide whom to approach to boost repeat purchases. The insight into numerous demographic variables of customers that encourage them to be repeat customers of a store, assuming they are loyalty program members, can help marketers make an effective plan for higher conversion. Marketers can use this to segment customers. The findings suggest that customer loyalty managers should measure customer benefits to improve customer perceived value. Loyalty programmers must improve the value proposition of membership to attract customers. Designing loyalty card benefits requires in-depth information before implementation. A loyalty program with tiers and differential compensation can boost sales and profits. The loyalty program should be strategically designed and managed. If firms carefully construct loyalty programs, acceptance is more likely. Tier-based initiatives that help customers save money and gain social standing are more successful. Thus, loyalty programs should offer more than “daily benefits/perks” to make clients feel unique.

The study also examines the demographic variables that affect a loyalty program member's purchase behaviour. The study shows that targeting loyalty program members by occupation can improve conversion rates. The survey found that generation Z students' love of loyalty programs makes them regular store customers. This means a student-only loyalty program can boost footfall and sales. A second useful insight drawn from the study is about employees working in the private or public sector. This insight can prove to be of immense help to marketers for more effective targeting of their selling efforts.

7.2. Theoretical implications

Along with managerial applications, the study's findings have implications for theory which can be significant for adding to the existing academic understanding and provide insight into how effective loyalty programs can provide competitive advantages. Most previous studies have found a link between loyalty programs and gender and age. The current study examines the impact of occupation, education, life cycle stage, and income on being a regular customer if the customer already has a store loyalty card membership. The study's findings improve the literature on machine learning and loyalty programs, especially in a developing country like India. The study adds a new dimension of building a model to extract demographic factors of customers that make them more inclined towards being regular customers of a store provided they hold a loyalty card or are members of the loyalty program of that store.

8. Directions for future research

The current study used factor, cluster, and C&RT analysis to group customers by their loyalty program perceptions. Important demographic indicators impacting customers' decision to frequent a store with a loyalty program membership were also identified. As an offshoot of the current study, Indian customers spending patterns related to loyalty programs may be studied in detail. As the study was done with Indian customers, it can be compared across cultures and countries. Future studies may potentially use several methodologies, and the results may be compared to determine the best techniques for a certain culture, region, or country.

Conflict of Interest

The author(s) declares no conflict of interest concerning the research, authorship, and/or publication of this article.

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