Assessment of Features and Market Segmentation of the Credit Card Industry in Malaysia

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ABSTRACT
To operate successfully in this credit card industry, various kinds of credit cards are offered to distinct user groups. This empirical study is conducted in Malaysia, and it examines the features of different types of credit card available. By using descriptive and one-way ANOVA test, this study analyses data of 234 credit cards which were collected from ringgitplus.com and imoney.my websites. The cards are categorised based on the usage purpose like airline tickets, insurance, dining, entertainment, fuel, lifestyle, groceries, shopping, utilities healthcare and general use. In total thirteen features are analysed for all of these cards. The findings show there is no significant difference in the purpose of cards based on the features of interest and profit rate, balance transfer annual charge, annual fees, annual fees for supplementary card, late payment, late payment maximum fees, cash withdrawal charges fees, minimum annual income, minimum age for primary cards, maximum age for primary cards, and minimum age for supplementary cards. However, only two features are statistically significant among the cards, these being cash back and interest rate on cash withdrawal. The findings will provide important insights for business managers, credit card users, and other policymakers regarding features and market segmentation in the credit card industry in Malaysia.

Key Words: Credit card; Market segmentation; Islamic credit card; Credit card interest rate; Malaysia

1. INTRODUCTION

In the mid-1970s credit cards were introduced to Malaysia [1]. Credit card use was first restricted because it was not available to the general public and was only offered by credit card companies to specialists, established businesspeople, and those on high incomes. By the end of the 1970s, around 20,000 cards were being produced [2]. Corporations removed some eligibility requirements for possessing credit cards because they wanted more customers, and as a result, credit card holders totalled about three million around the turn of the last century [2].

As per Bank Negara Malaysia, the credit card business grew by 12.5%, with credit cards for purchases growing at a pace of 23% [3]. The Malaysian credit card business has greatly expanded in recent years [4]. As per Bank Negara Malaysia, credit card current accounts increased to RM 125 billion, with 325 million trades [5]. Credit card transactions totalled RM 98.3 billion, while cash advance withdrawals totalled RM 3.45 billion. The current total amounted to an incredible RM 28 billion,' with 9.20% of users in debt by the end of 2012. In 2012, there were 7.5 million primary credit cards in existence and one million supplementary credit cards. Various sorts of credit cards have been launched during this time.

In both the Islamic and conventional bank systems, credit cards in Malaysia can be classified as standard, gold, or platinum based on their objectives and consumer categories [6,7,8]. Classic credit cards are offered to customers with steady earnings and low credit scores, whereas gold cards are offered to those with a high income and a good credit score. Platinum cards are reserved for the wealthy, and they come with extra services as well as special offers from restaurants, airlines, and high-end hotels. As a result, numerous credit cards are issued to different user groups, each with its own set of benefits [7,9]. It is also found that the greater the level of attitude index, the more likelihood of having strong credit balances, the more favourable one's overall disposition to using credit, but the bigger the instalment debt will be [10]. Moreover, employees of Malaysian institution of higher learning have a good attitude about using credit cards [11]. Due to the competitive market, many credit cards are offered by different firms to select the customers from distinct sections of society.

As a result, the focus of this study is on the overall characteristics of Malaysia's credit card market segmentation and features. As well, the characteristics of credit card usage objectives in Malaysia are investigated. This study will contribute to the existing body of knowledge and will benefit academics, business managers, credit card users, and financial market policymakers to improve the efficiency of the credit card market in Malaysia and other similar coteries.

2. LITERATURE REIVIEW

Credit cards were initially used in the hotel business in the United States at the turn of the twentieth century, and department stores and petrol stations followed suit by 1914 [12, 13]. Third-party cards, such as travel and entertainment cards, began to appear in the 1950s [13]. They were followed by Bank America's bankcards, which were introduced in the 1960s. Bank, travel, and leisure cards have gradually garnered international recognition. Visa and Master card charge methods were devised in the American credit card industry to keep it viable [13].

A cross-cultural study of English and French speakers in Canada showed a contrast of views about credit card usage was documented in their study [14]. For both groups, various attitudinal statements on card usage revealed that cardholders only wanted to resort to credit cards in emergency cases. According to the two samples, a user's socio-economic status and desire for credit cards were the most important factors in card usage. Expenses, precision, security, pragmatism, and convenience were more important to the English-speaking group, but expense, precision, overconsumption, and overspending were more important to the French-speaking group, all of which would consequently affect their purchasing behaviour. In addition, income and education emerged as positively connected to credit card usage frequency in the study.

Study on the employees of Malaysian institution of higher learning shoed a positive attitude about using credit cards [11]. Though study showed that the education related credit cards are statistically significantly different from other types of credit cards in Malaysia only for two features: interest rate and cash withdrawal charge fees [6], college students showed positive attitudes about cognitive variables [15]. Affective credit attitude influenced credit card purchase behaviour among college students [16]. Another study looked at card usage and attitudinal variations and defines inactive cardholders as individuals who used their cards just under 10 times each month [17]. Active cardholders, on the other hand, were those who used their cards at least ten times each month. After surveying various credit card company executives, thirteen key characteristics were discovered. Increased adoption, strong credit limits, convenience of paying bills, long interest-free periods, relatively low service charges, quick application approval times, efficient managing of cardmember concerns, financial institution image, appealing gift/bonus to card users, card design, well-prepared booklets, bank marketing, and supplementary features of the cards were among the factors considered. In that study, a multi-attribute mindset model was used to assess the views of credit cardholders.

Another study investigated why more and more different credit cardholders in Singapore rely on a major card (i.e. a card used more commonly than others) and subsidiary cards (i.e. cards used less frequently or only in an emergency), as well as the consumption patterns associated with their use [18]. Additional discounts and incentives offered by the card issuer were frequently mentioned arguments for having such a card throughout Singapore. The main cards were used for the most purchases, while subsidiary cards were used for a smaller number of transactions, with the majority claiming their subsidiary cards were kept for "standby purposes." Therefore, credit card providers need to keep in mind that the promotions they organise, the discounts and loyalty programmes they offer are preferable to those offered by competitors. High-earning consumers who have multiple cardholders are likely to use their card as a major card if these claims are kept, resulting in more income for the credit card provider.

Furthermore, another study investigated the acceptability and use of credit cards by rich people in metropolitan China [19]. They looked at how credit cards are used by a group of individuals who are "early adopters" of the service. Customers were at ease with the usage and storage of credit cards, and they recognised the value of using them for travel and leisure. The study also discovered buy trigger points, indicating that the use of credit cards for purchases over a specific value was already popular among the urban wealthy Chinese consumers in this trial.

Moreover, studies investigated the differences between Islamic and conventional credit cards in Malaysia [7, 8]. Islamic credit cards are based on the principles of Islamic law (Shariah) while conventional credit cards as used in the capitalistic interest-based system are not, but in many cases Islamic and conventional credit cards do follow the same features such as cash back, minimum annual income, annual profit/interest rate, interest/charge rate for late payment, and interest/charges for cash withdrawal. However, based on the study's findings there are a few cases where the features of both cards significantly differ, for example: interest/profit rate, balance transfer fees, annual fees, cash withdrawal fees, and annual fees for supplementary cards. Similarly, while comparing the features of credit cards dedicated to women and credit cards in general in Malaysia, study showed that only two features of credit cards dedicated to women are statistically significantly different from credit cards: annual charge for balance transfer and cash back facility [9].

Overall, there is a lack of research on the purpose and types of credit cards. Hence, this study will help to fill the gap in the literature and improve the services related to all academic fields and credit card customers.

3. RESEARCH METHODOLOGY

To examine the purpose of credit card usage in Malaysia, this study assessed the data of 234 credit cards by using descriptive and one-way ANOVA test. The sample size is limited to Malaysian credit card offering firms whose data is available online. The data were collected in mid-2019 from two sources, namely the RinggitPlus and Imoney websites. Further information was collected and verified from the websites of different credit card companies.

4. ANALYSIS AND FINDINGS

4.1. Overview of the Market

Based on data collected, there are 234 credit cards available in Malaysia. According to the research objective, which is to understand the purpose of credit card usage, there are several offers promoted by credit cards in Malaysia. The descriptive statistics explained the purpose of credit card usage in Malaysia. The purposes that are discussed in descriptive statistics are airline, insurance, dining, entertainment, fuel, lifestyle, groceries, shopping, utilities healthcare and general purpose. In Malaysia, banks offered at minimum 1 and at maximum 6 benefits to credit cardholders. There are 141 credit cards accessible for 1 purpose while 21 credit cards can offer 2 purposes. Furthermore, 16 credit cards offered 3 purposes while 29 credit cards offered 4 purposes to credit cardholders in Malaysia.

Table 1: Number of purposes credit cards in Malaysia

Number of Purposes	Number of Credit Cards in Malaysia
1	141
2	21
3	16
4	29
5	21
6	6
Total	234

There are 21 credit cards that promote 5 purposes for credit cardholders to take advantage of in Malaysia. Finally, 6 credit cards offered 6 purposes. The features that are discussed using descriptive statistics on the purpose of credit card usage in Malaysia are: interest rate, balance transfer annual charge, cash back, annual fees, annual fees for supplementary card, late payment rate, late payment maximum fees, cash withdrawal charge fees, interest rate on cash withdrawal, minimum annual income, minimum age for primary card, maximum age for primary card and minimum age for supplementary card.

4.2. Purpose of Credit Usage in Malaysia

Based on data collected, 234 credit cards are now available in Malaysia. According to the research objective, which is to assess the purpose of using credit cards and their features, there are several offers being promoted by finance companies in Malaysia. These features are compared based on descriptive analysis in Table 2 and the statistical tests to understand the significance in the differences which are shown in Table 3.

4.2.1. Interest Rate and Profit

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on the interest rate feature. The number of credit cards offered for airline purpose was 32,

and the mean shows that the interest rate was 14.77%. The number of credit cards offered for insurance purpose was 7, and the mean shows that the interest rate for this stood at 14.36%. However, the number of credit cards offered for dining purpose was 20, and the mean shows that the interest rate for dining amounted to 14.85%.

Moreover, the number of credit cards designed for entertainment purpose was 18, and the mean shows that the interest rate was 15%. The number of credit cards offered for purchasing fuel was 58, and the mean shows that the interest rate here was 14.39%. On the other hand, the number of credit cards offered for lifestyle purpose was 57, and the mean shows that the interest rate stood at 14.20%. Next, the number of credit cards offered to buy groceries was 71, and the mean shows that the interest rate here was 14.31%.

Further, the number of credit cards that are offered for shopping purpose was 67, and the mean shows that the interest rate was 14.34%. Nevertheless, the number of credit cards offered on utilities purpose amounted to 22, and the mean shows that the interest rate was 14.45%. Although the number of credit cards offered for healthcare purpose was 5, and the mean shows that the interest rate for this amounted to 15%. Notwithstanding, the number of credit cards offered to pay for general purpose was 131, and the mean shows that the interest rate was 14.46%. In brief, the total number of credit cards is 488 regarding airline and the total means show that interest rate for this purpose was 14.77% (Table 2).

Table 3 shows the output of one-way ANOVA analysis for the interest rate on the number of credit card usage purposes in Malaysia. The F-value is 0.927 and p-value is 0.507. The p-value for this model is greater than 0.05 which strongly suggests that it is not significant. Consequently, there is no statistically significant difference as far as interest rates are concerned for a whole range of credit card uses in Malaysia.

4.2.2. Annual Balance Transfer Charge

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on balance transfer annual charge feature. The number of credit cards that offered airline purpose was 32, and the mean shows that the balance transfer annual charge was 2.55%. Meanwhile the number of credit cards offered for insurance purpose was 7, and the mean shows that the balance transfer annual charge amounted to 0.86%. However, the number of credit cards that are offered for dining purpose was 20, and the mean shows that the balance transfer annual charge was 1.74%.

Moreover, the number of credit cards that are offered for entertainment purpose was 18, and the mean shows that the balance transfer annual charge stood at 1.68%. In addition, the number of credit cards that are offered for fuel purpose was 58, and the mean shows that the balance transfer annual charge was 2.73%. Conversely, the number of credit cards that are offered on lifestyle purpose was 57, and the mean shows that the balance transfer annual charge was 2.05%.

Next, the number of credit cards offered to pay for groceries was 71, and the mean shows that the balance transfer annual charge was 1.97%.

Further, the number of credit cards that are offered on shopping purpose was 67, and the mean shows that the balance transfer annual charge was 1.92%. Nevertheless, the number of credit cards that are offered for utilities purpose was 22, and the mean shows that the balance transfer annual charge was 3.65%. Although the number of credit cards offered on healthcare purpose stood at 5, and the mean shows that the balance transfer annual charge was 5.55%. Notwithstanding this, the number of credit cards offered for general purpose was 131, and the mean shows that the balance transfer annual charge was 2.06%. In brief, the total number of credit cards is 488 regarding airline and the total means show that balance transfer annual charge for the airline purpose was 2.20% (Table 2).

Table 3 documents the output of one-way ANOVA analysis for the balance transfer annual charge on the number of credit card usage purposes in Malaysia. The F-value is 1.766 and the p-value is 0.064. The p-value for this model is greater than 0.05 which indicates that this model is not significant. On this basis, there is no statistically significant difference as far as balance transfer annual charge feature conditions are concerned on credit card usage purposes in Malaysia.

4.2.3. Cash Back

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on cash back feature. The number of credit cards that are offered on airline purpose was 32, and the mean shows that the cash back were stood at 1.16%. Meanwhile the number of credit cards that are offered for insurance purpose was 7, and the mean shows that the cash back was 2.86%. However, the number of credit cards that are offered for this purpose was reported to be 20, and the mean shows that the cash back was 3.75%.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the cash back for this was 2.58%. In the meantime, the number of credit cards offered for fuel purpose was 58, with the mean showing that the cash back was 2.52%. Concerning the number of credit cards offered for lifestyle purpose was 57, and the mean shows that the cash back here amounted to 1.15%. Next, the number of credit cards offered for groceries purpose was 71, and the mean shows that the cash back for groceries was 1.91%.

On the theme of credit cards for offered for shopping purpose the number was 67, and the mean shows that the cash back stood at 1.7%. The number of credit cards offered for utilities purpose was 22, and the mean shows that the cash back amounted to 3.58%. Although the number of credit cards offered for healthcare purpose was 5, and the mean reveals that the cash back for this purpose was 5.12%. Concerning the number of credit cards offered for general purpose this was 131 and the mean shows that the cash back here was 1.19%. In brief, the total number of credit cards is 488 regarding airline and the total means show that cash back for the airline purpose was 1.84% (Table 2).

Table 3 shows the output of one-way ANOVA analysis for cash back regarding the number of credit card usage purposes in Malaysia. The F-value is 4.005 and p-value is 0.000. The p-value for this model is less than 0.05 which indicates that this model is significant. Therefore, there is a statistically significant difference as far as cash back feature conditions are concerned for the number of credit card usage purposes in Malaysia.

4.2.4 Annual Fees

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on annual fees. The number of credit cards offered for airline purpose was 32, and the mean shows that the annual fees here amounted to RM163.87. Furthermore, the number of credit cards offered for insurance purpose was 7, and the mean shows that the annual fees for insurance stood at RM141.13. However, the number of credit cards offered for dining purpose was 20 and mean shows that the annual fees was RM92.66.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the annual fees this purpose was RM94.69. The number of credit cards offered for fuel purpose was 58, and the mean shows that the annual fees for purchasing fuel was RM88.96. For lifestyle purpose the number of credit cards offered was 57, with the mean showing that the annual fees were RM66.26. Next, the number of credit cards offered for groceries purpose was 71, and the mean shows that the annual fees was RM90.78. The number of credit cards offered for shopping purpose was 67, and the mean shows that the annual fees here was recorded as RM71.02. Meanwhile the number of credit cards offered for utilities purpose was 22, and the mean shows that the annual fees for utilities was RM69.33. For the number of credit cards offered for healthcare purpose, which was 5, and the mean shows that the annual fees for this purpose was RM97.40. Regarding the number of credit cards offered for general purpose this was 131, and the mean shows that the annual fees here was RM128.27. In brief, the total number of credit cards is 488 regarding airline and the total means show that annual fees for the airline purpose was RM99.89.

Table 2: Descriptive statistics on the purpose of credit card usage in Malaysia

	Number of Cards	Interest Rate (Mean)	Balance Transfer (Mean)	Cash Back (Mean)	Annual Fees (Mean)	Annual Fees for Supplementary Card (Mean)	Late Payment Rate (Mean)	Late Payment Maximum Fees (Mean)	Cash Withdrawal Charges Fees (Mean)	Interest Rate on Cash Withdrawal (Mean)	Minimum Annual Income (Mean)	Minimum Age for Primary Card (Mean)	Maximum Age for Primary Card (Mean)	Minimum Age for Supplementary Card (Mean)
Airline	32	14.77	2.55	1.16	164	195	1	61.9	20	18	68250	21	62.63	18
Insurance	7	14.36	0.86	2.86	141	218	1	54.3	17	18	47142.9	21	63.33	18
Dining	20	14.85	1.74	3.75	92.7	133	1	68.5	18.7	18	51600	21	62.5	18
Entertainment	18	15	1.68	2.58	94.7	122	1	65	19.9	18	41555.6	21	60	18
Fuel	58	14.39	2.73	2.52	89	187	1	67.6	19.8	17	51551.7	21	62.16	18.12
Lifestyle	57	14.2	2.05	1.15	66.3	184	1	66.1	18.6	17	55403.5	21	61.81	18.12
Groceries	71	14.31	1.97	1.91	90.8	168	1	68.9	18.6	17	50309.9	21	61.93	18.13
Shopping	67	14.34	1.92	1.7	71	155	1	69.2	18.5	17	48656.7	21	61.62	18.10
Utilities	22	14.45	3.65	3.58	69.3	169	1	81.4	18.6	17	54090.9	21	62.78	18.15
Healthcare	5	15	5.55	5.12	97.4	45	1	64	19.1	18	53600	21	60	18
General	131	14.46	2.06	1.19	128	212	1.2	54.4	21.1	18	67633.6	21	61.43	18.02
All cards	488	14.44	2.2	1.84	99.9	180	1	64.2	19.5	17	56541	21	61.82	18.07

Table 3: Statistical differences of features among the credit cards in Malaysia

Features	Data Group	Sum of Squares	df	Mean Square	F	Sig.
Interest and profit rate	Between Groups	19.35	10	1.935	0.927	0.507
	Within Groups	995.214	477	2.086		
	Total	1014.564	487			
Balance transfer annual charge	Between Groups	157.487	10	15.749	1.766	0.064
	Within Groups	4254.588	477	8.919		
	Total	4412.075	487			
Cash Back	Between Groups	337.176	10	33.718	4.005	.000
	Within Groups	4015.919	477	8.419		
	Total	4353.095	487			
Annual Fees	Between Groups	403628.039	10	40362.804	1.18	0.302
	Within Groups	16312294.17	477	34197.682		
	Total	16715922.21	487			
Annual Fees for Supplementary Card	Between Groups	403432.818	10	40343.282	1.044	0.405
	Within Groups	18275327.56	473	38637.056		
	Total	18678760.38	483			
Late Payment	Between Groups	2.234	10	0.223	0.361	0.963
	Within Groups	295.447	477	0.619		
	Total	297.68	487			
Late Payment Maximum Fees	Between Groups	24450.766	10	2445.077	1.363	0.194
	Within Groups	855518.701	477	1793.54		
	Total	879969.467	487			
Cash withdrawal charges fees	Between Groups	603.182	10	60.318	0.493	0.895
	Within Groups	57893.15	473	122.396		
	Total	58496.332	483			
Interest rate on Cash withdrawal	Between Groups	200.657	10	20.066	1.889	0.045
	Within Groups	5066.581	477	10.622		
	Total	5267.238	487			
Minimum Annual Income	Between Groups	34269296640	10	3426929664	1.241	0.262
	Within Groups	1.31712E+12	477	2761249232		
	Total	1.35139E+12	487			
Minimum Age for Primary Cards	Between Groups	0.089	10	0.009	0.268	0.988
	Within Groups	15.878	477	0.033		
	Total	15.967	487			
Maximum Age for Primary Cards	Between Groups	75.979	10	7.598	1.283	0.24
	Within Groups	1581.664	267	5.924		
	Total	1657.644	277			
Minimum Age for Supplementary Cards	Between Groups	1.202	10	0.12	0.57	0.838
	Within Groups	95.451	453	0.211		
	Total	96.653	463			

Table 3 documents the output of one-way ANOVA analysis for annual fees paid on the number of credit card usage purposes in Malaysia. The F-value is 1.18 and p-value is 0.302. The p-value for this model is greater than 0.05 and this suggests this model is not significant. Subsequently, there is no statistically significant difference as far as annual fees feature conditions are concerned when talking about credit card usage purposes in Malaysia.

4.2.5. Annual Fee for Supplementary Card

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on annual fees for supplementary card feature. The number of credit cards offered for airline purpose was 32, and the mean shows that the annual fees here amounted RM195.24. The number of credit cards offered for insurance purpose was 7, and the mean shows that the annual fees stood at RM217.51. However, the number of credit cards offered for dining purpose was 20, and the mean shows that the annual fees for supplementary card for dining was RM133.21.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the annual fees for supplementary card for the purpose of entertainment was RM121.70. Additionally, the number of credit cards offered for fuel purpose was 57, and the mean shows that the annual fees for supplementary card for the purpose of fuel was RM187.12. On the other hand, the number of credit cards offered for lifestyle purpose was 57, and the mean reveals that the annual fees for supplementary card for lifestyle was RM183.86. Next, the number of credit cards offered for groceries purpose was 70, and the mean indicates that the annual fees for supplementary card was RM168.41.

Further, the number of credit cards offered for shopping purpose was 66, and the mean shows that the annual fees for supplementary card for this purpose stood at RM155.21. Meanwhile the number of credit cards offered for utilities purpose was 22, and the mean shows that the annual fees for supplementary card was RM169.35. Despite the fact that there are only credit cards offered for healthcare purpose (5), the mean shows that the annual fees for supplementary card was recorded as RM44.52. The number of credit cards offered for general purpose was 130, and the mean shows that the annual fees for supplementary card for this purpose was RM212.02. In brief, the total number of credit cards is 484 regarding airline and the total means shows that annual fees for supplementary card for the airline purpose was RM180.40 (Table2).

Table 3 shows the output of one-way ANOVA analysis for annual fees for supplementary card on the number of credit card purposes in Malaysia. The F-value is 1.044 while the p-value is 0.405. The p-value for this model is greater than 0.05 which indicates that it is not significant. There is no

statistically significant difference as far as annual fees for supplementary card feature conditions are concerned, specifically the number of credit card usage purposes in Malaysia.

4.2.6. Late Payment Rate

Table 2 summarises the descriptive statistics for the number of credit card usage purposes based on late payment rate feature. The number of credit cards offered for airline purpose was 32, and the mean shows that the late payment rate was 1%. The number of credit cards offered for insurance purpose was 7, and the mean shows that the late payment rate here stood at 1%. While the number of credit cards offered for dining purpose was 20, the mean shows that the late payment rate stood at 1%. Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean indicates that the late payment rate for this purpose was 1%. The number of credit cards offered for fuel purpose was 58, and the mean shows that the late payment rate was 1%. Furthermore, the number of credit cards offered for lifestyle purpose was 57, and for this variable the mean shows that late payment rate was 1%. Next, the number of credit cards offered for groceries purpose was 71, and the mean shows that the late payment rate here amounted to 1%.

Further, the number of credit cards offered for shopping purpose was 67, and the mean shows that the late payment rate was 1%. For the utilities purpose the number of credit cards offered stood at 22, and the mean shows that the late payment rate was 1%. Concerning the number of credit cards offered for healthcare purpose there were 5, and the mean shows that the late payment rate was 1%. Referring to the number of credit cards offered for general purpose, which was 131, the mean shows that the late payment rate was 1.15%. In brief, the total number of credit cards is 488 regarding airline and the total means shows that late payment rate for the airline purpose was 1.04% (Table 2).

Table 3 records the output of one-way ANOVA analysis for late payment rate on the number of purposes credit card usage in Malaysia. The F-value is 0.361 and p-value is 0.963. The p-value for this model is greater than 0.05 which indicates that this model is not significant. No statistically significant difference is evident as far as late payment rate feature conditions are concerned regarding the number of credit card usage purposes in Malaysia.

4.2.7. Maximum Late Payment Fees

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on late payment maximum fees feature. The number of credit cards offered for airline purpose was 32, and the mean shows that the late payment maximum fees was RM61.88. Besides that, the number of credit cards offered for insurance purpose was 7, and the mean shows that the late payment maximum fees amounted to RM54.29. For dining purpose, the number of credit cards

offered was 20, with the mean confirming that the late payment maximum fees were RM68.50.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the late payment maximum fees for the purpose of entertainment was RM65. In addition, the number of credit cards offered for fuel purpose was 58; the mean shows that the late payment maximum fees for the purpose of fuel were RM67.59. On the other hand, the number of credit cards offered for lifestyle purpose was 57, and the mean shows that the late payment maximum fees for the purpose of lifestyle was RM66.05. Next, the number of credit cards offered for groceries purpose was 71, and the mean shows that the late payment maximum fees for the purpose of groceries was RM68.94.

Further, the number of credit cards offered for shopping purpose was 67, and the mean shows that the late payment maximum fees here was RM69.18. The number of credit cards offered for utilities purpose was 22, and the mean shows that the late payment maximum fees stood at RM81.36. For healthcare purpose the number of credit cards offered was 5, and the mean shows that the late payment maximum fees was RM64. In the meantime, the number of credit cards offered for general purpose was 131, and the mean shows that the late payment maximum fees was recorded as RM54.40. In brief, the total number of credit cards is 488 regarding airline and the total means show that late payment maximum fees for the airline purpose was RM64.24 (Table 2).

Table 3 summarizes the output of one-way ANOVA analysis for late payment maximum fees on the number of credit card usage purposes in Malaysia. The F-value is 1.363 and p-value is 0.194. The p-value for this model is greater than 0.05 and this finding indicates that this model is not significant. There is no statistically significant difference as far as late payment maximum fees feature conditions are concerned on the number of credit card usage purposes in Malaysia

4.2.8. Cash Withdrawal Charge

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on cash withdrawal charge fees feature. The number of credit cards offered for airline purpose was 32, and the mean shows that the cash withdrawal charge fees was RM19.98. The number of credit cards offered for insurance purpose amounted to 7, and the mean shows that the cash withdrawal charge fees was RM16.96. However, the number of credit cards offered for dining purpose was 20, with the mean highlighting that the cash withdrawal charge fees was RM18.73.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the cash withdrawal charge fees was RM19.92. Meanwhile the number of credit cards offered for fuel purpose was 58, and the mean shows that the cash withdrawal charge fees stood at RM19.84. For the lifestyle purpose the number of credit cards

offered for was 57, and the mean shows that the cash withdrawal charge fees was RM18.63. Next, the number of credit cards offered for groceries purpose was 70, with the mean revealing that the cash withdrawal charge fees were RM18.56.

Further, the number of credit cards offered for shopping purpose was 67, and the mean shows that the cash withdrawal charge fees was in fact RM18.53. Concerning the number of credit cards offered for utilities purpose, this amounted to 21, and the mean shows that the cash withdrawal charge fees stood at RM18.57. While the number of credit cards offered for healthcare purpose was 5, the mean shows that the cash withdrawal charge fees for this purpose was RM19.08. For the number of credit cards offered for general purpose this amounted to 130, and the mean shows that the cash withdrawal charge fees was RM21.13. In brief, the total number of credit cards is 484 regarding airline and the total means show that cash withdrawal charge fees for the airline purpose was RM19.54 (Table 2).

Table 3 shows the output of one-way ANOVA analysis for cash withdrawal charge fees on the number of credit card usage purposes in Malaysia. The F-value is 0.493 and p-value is 0.895. The p-value for this model is greater than 0.05 which indicates that this model is not significant. Based on this, no statistically significant difference is evident as far as cash withdrawal charge fees feature conditions are concerned when discussing the number of credit card usage purposes in Malaysia.

4.2.9. Interest/ Charge Rate on Cash Withdrawal

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on interest rate on cash withdrawal feature. The number of credit cards offered for airline purpose was 32, and the mean shows that the interest rate on cash withdrawal was 18.06%. Meanwhile the number of credit cards offered for insurance purpose was 7, and the mean shows that the interest rate on cash withdrawal stood at 18.29%. However, the number of credit cards offered for dining purpose was 20, and the mean shows that the interest rate on cash withdrawal for the purpose of dining was 18%.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the interest rate on cash withdrawal for the purpose of entertainment was 18%. In addition, the number of credit cards offered for fuel purpose was 58, and the mean shows that the interest rate on cash withdrawal for the purpose of fuel was 16.77%. On the other hand, the number of credit cards offered for lifestyle purpose was 57, and the mean shows that the interest rate on cash withdrawal for the purpose of lifestyle was 16.52%. Next, the number of credit cards offered for groceries purpose was 71, and the mean shows that the interest rate on cash withdrawal for the purpose of groceries was 16.78%.

Further, the number of credit cards offered for shopping purpose was 67, and the mean shows that the interest rate on

cash withdrawal for the purpose of shopping was 16.71%. Nevertheless, the number of credit cards offered for utilities purpose was 22, and the mean shows that the interest rate on cash withdrawal for the purpose of utilities was 17.42%. Even though, the number of credit cards offered for healthcare purpose was 5, and the mean shows that the interest rate on cash withdrawal for the purpose of healthcare was 18%. Notwithstanding, the number of credit cards offered for general purpose was 131, and the mean shows that the interest rate on cash withdrawal for the purpose of general was 17.98%. In brief, the total number of credit cards is 488 regarding airline and the total means show that interest rate on cash withdrawal for the airline purpose was 17.3% (Table 2).

Table 3 documents the output of one-way ANOVA analysis for interest rate on cash withdrawal on the number of credit card usage purposes in Malaysia. The F-value is 1.889 and p-value is 0.045. The p-value for this model is less than 0.05 which indicates that this model is significant. Therefore, there is a statistically significant difference as far as interest rate on cash withdrawal feature conditions are concerned on the number of credit card usage purposes in Malaysia.

4.2.10. Minimum Annual Income

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on minimum annual income feature. The number of credit cards offered for airline purpose was 32, and the mean shows that the minimum annual income for the purpose of airline was RM68250. Besides that, the number of credit cards offered for insurance purpose was 7, and the mean shows that the minimum annual income for the purpose of insurance was RM47142.90. However, the number of credit cards offered for dining purpose was 20, and the mean shows that the minimum annual income was documented as RM51600.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the minimum annual income was RM41555.60. Added to this, the number of credit cards offered for fuel purpose was 58, and the mean shows that the minimum annual income for this purpose was RM51551.70. Documenting the number of credit cards offered for lifestyle purpose this stood at 57, and the mean shows that the minimum annual income was RM55403.50. Next, the number of credit cards offered for groceries purpose was 71, and the mean shows that the minimum annual income was reported to be RM50309.90.

Further, the number of credit cards offered for shopping purpose was 67, and the mean shows that the minimum annual income for shopping was RM48656.70. The number of credit cards offered for utilities purpose was 22, and the mean shows that the minimum annual income was reported as RM54090.90. While only 5 credit cards are offered for healthcare purpose, the mean shows that the minimum annual income was RM536000. For the number of credit cards offered for general purpose there were in fact 131, and the mean shows that the minimum annual income was

RM67633.60. In brief, the total number of credit cards is 488 regarding airline and the total means shows that minimum annual income for the airline purpose was RM56541 (Table 2).

Table 3 tabulates the output of one-way ANOVA analysis for minimum annual income on the number of credit card usage purposes in Malaysia. The F-value is 1.241 and p-value is 0.262. The p-value for this model is greater than 0.05 which strongly suggests that this model is not significant. There is no statistically significant difference as far as minimum annual income feature conditions are concerned on the number of credit card usage purposes in Malaysia.

4.2.11. Minimum Age for Primary Card Holder

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on minimum age for primary card feature. The number of credit cards offered for airline purpose was 32, and the mean shows that the minimum age for using a primary card was 21. The number of credit cards offered for insurance purpose was 7, and the mean shows that the minimum age for primary card here stood at 21. Concerning the number of credit cards offered for dining purpose, which was 20, the mean shows that the minimum age for primary card also stood at 21.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the minimum age for primary card for this purpose was 21. In addition, the number of credit cards offered for fuel purpose was 58, and the mean shows that the minimum age for primary card was reported as 21. Meanwhile the number of credit cards offered for lifestyle purpose was 57, and the mean shows that the minimum age for primary card amounted to 21. On the number of credit cards offered for groceries purpose there were 71, and the mean shows that the minimum age was, again, 21.

The number of credit cards offered for shopping purpose was 67, and the mean shows that the minimum age for primary card was documented as 21. For the number of credit cards offered for utilities purpose, which was 22, the mean shows that the minimum age for this purpose was 21. Although the number of credit cards offered for healthcare purpose stood at 5, the mean shows that the minimum age for primary card was 21. Referring to the number of credit cards offered for general purpose there were in fact 131, and the mean shows that the minimum age for primary card was 21.03. In brief, the total number of credit cards is 488 regarding airline and the total means show that minimum age for primary card for the airline purpose was 21.01 (Table 2).

Table 3 shows the output of one-way ANOVA analysis concerning the minimum age for primary card feature with reference to the number of credit card usage purposes in Malaysia. The F-value is 0.268 and p-value is 0.988. The p-value for this model is greater than 0.05 which means this model is not significant. There is no statistically significant difference in terms of the minimum age for primary card

feature conditions on the number of credit card usage purposes in Malaysia.

4.2.12. Maximum Age for Primary Card Holder

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on maximum age for primary card feature. The number of credit cards offered for airline purpose was 19, and the mean shows that the maximum age for primary card amounted to 62.63. The number of credit cards offered for insurance purpose was 3, and the mean shows that the maximum age for primary card for this purpose was 63.33. However, the number of credit cards offered for dining purpose was only 8, and the mean shows that the maximum age for primary card stood at 62.5.

Moreover, the number of credit cards offered for entertainment purpose was 7, and the mean shows that the maximum age for primary card was 60. Concerning the number of credit cards offered for fuel purpose was 37, the mean shows that the maximum age for primary card was 62.16. On the other hand, the number of credit cards offered for lifestyle purpose was 36, and the mean shows that the maximum age for primary card for this purpose stood at 61.81. Next, the number of credit cards offered for groceries purpose was 44, and the mean shows that the maximum age for primary card amounted to 61.93.

Regarding the number of credit cards offered for shopping purpose which amounted to 37, the mean shows that the maximum age for primary card here was 61.62. Nevertheless, the number of credit cards offered for utilities purpose was 9, and the mean shows that the maximum age for primary card in this context was 62.78. Although the number of credit cards offered for healthcare purpose was 1, the mean shows that the maximum age for primary card for this purpose was 60. The number of credit cards offered for general purpose was 77, and the mean shows that the maximum age for primary card here was reported as 61.43. In brief, the total number of credit cards is 488 regarding airline and the total means shows that maximum age for primary card for the airline purpose was 61.82 (Table 2).

Table 3 shows the output of one-way ANOVA analysis for maximum age for primary card feature concerning the number of credit card usage purposes in Malaysia. The F-value is 1.283 while the p-value is 0.24. The p-value for this model is greater than 0.05 which indicates that this model is not significant. On this basis, there is no statistically significant difference regarding maximum age for primary card feature conditions on the number of credit card usage purposes in Malaysia.

4.2.13. Minimum Age for Supplementary Card Holder

Table 2 shows the descriptive statistics for the number of credit card usage purposes based on minimum age for supplementary card feature. The number of credit cards

offered for airline purpose was 30, and the mean shows that the minimum age for supplementary card stood at 18. The number of credit cards offered for insurance purpose was 7, and the mean shows that the minimum age for supplementary card was 18. However, the number of credit cards offered for dining purpose was 18, with the mean indicating that the minimum age for supplementary card for this purpose stood at 18.

Moreover, the number of credit cards offered for entertainment purpose was 18, and the mean shows that the minimum age for supplementary card for the purpose of entertainment was 18. In addition, the number of credit cards offered for fuel purpose was 55, and the mean shows that the minimum age for supplementary card for the purpose of fuel was 18.11. On the other hand, the number of credit cards offered for lifestyle purpose was 56, and the mean shows that the minimum age for supplementary card for the purpose of lifestyle was 18.10. Next, the number of credit cards offered for groceries purpose was 69, and the mean shows that the minimum age for supplementary card for this purpose was 18.13.

Further, the number of credit cards offered for shopping purpose was 65, and the mean shows that the minimum age for supplementary card here stood at 18.09. Nevertheless, the number of credit cards offered for utilities purpose was 20, and the mean shows that the minimum age for supplementary card was 18.15. Despite the fact that the number of credit cards offered for healthcare purpose was 4, the mean shows that the minimum age for supplementary card was also reported as 18. Regarding the number of credit cards offered for general purpose, which was 122, the mean shows that the minimum age for supplementary card was 18.02. In brief, the total number of credit cards is 488 regarding airline and the total means show that minimum age for supplementary card for the airline purpose was 18.07 (Table 2).

Table 3 records the output of one-way ANOVA analysis concerning minimum age for supplementary card feature on the number of credit card usage purposes in Malaysia. The F-value is 0.57 and p-value is 0.838. The p-value for this model is greater than 0.05 which indicates this model is not significant. Consequently, there is no statistically significant difference as far as minimum age for supplementary card feature conditions are concerned with reference to the number of credit card usage purposes in Malaysia.

5. CONCLUSIONS

The overall aim of this study is to better understand the characteristics and market segmentation of credit card usage in Malaysia. The findings show that only two features have statistically significant differences among the cards, which are the cash back and interest rate features. Unfortunately, the other study's eleven features analysed had no statistically significant differences on credit card usage in Malaysia. Therefore, different credit cards come with different types of features and target different customer groups, but almost all

of them offer similar benefits to customers due to high competition in the market.

Nonetheless the results will assist business managers and policymakers to better understanding market behaviours and improve Malaysia's credit card market. In fact, the most important implication arising from this study is that credit card companies should aim to promote credit card to the target markets and there should be some significant differences in the features according to the characteristics of the target group. Furthermore, growing rivalry and rapid changes technology that now affect the finance sector and the services provided have boosted the demand for innovative credit cards. The development of credit card features and how they are organised will necessitate an appropriate marketing strategy. Banks that issue credit cards can greatly increase their profitability by using the best techniques instead of wasting money on ineffective promotion schemes and advertising to the wrong group of people. The conventional credit card issuers also need to consider the forthcoming competition with the fintech market like e-wallet [20] and other savings cards that are increasingly capturing the market in Malaysian.

The scope of this research is limited to the Malaysian credit card industry and its findings might not be extended to other countries and other setup. More studies comprising various markets from other nations, other competitors from fintech industry like e-wallet and many types of savings cards and other cultures or ethnic communities could broaden and strengthen the study's theme. More research should be done in Malaysia on the factors that influence the purposes of credit card usage, such as evaluating what influences the construction of attitudes toward credit spending purposes and usage. Future research should look into the factors that guide Malaysian consumers' attitudes regarding credit card spending and usage, as well as differences in geographic region and ethnicity. There should be more longitudinal research undertaken, since these sorts of designs can compare how standards change over time.

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