



# Muslims and Non-Muslims' Satisfaction of the Islamic Insurance in Malaysia Application of the Extended Customer Satisfaction Analysis

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**Abstract:** Islamic insurance has a more value-added substance than conventional insurance, and it is the ultimate solution for anyone seeking financial protection for their potential misfortune. However, the penetration ratio has been low even in Muslim majority countries, including Malaysia. While some existing studies examined the factors that contribute to improving the penetration rate, almost no studies examined satisfaction as the primary target. This study conducted a questionnaire for both Muslims and non-Muslims in Malaysia to investigate the factors that determine the satisfaction of the conventional and Islamic insurances. The Snowball sampling method was used, and 396 responses were obtained from Muslim and non-Muslim insurance policyholders in Selangor and Kuala Lumpur. The extended version of the Customer Satisfaction (CS) analysis was developed and applied to the Malaysian insurance policyholders' data. There are three main results in this study. First, the factors that determine both Muslims' and non-Muslims' satisfaction with insurance were different. Second, while non-Muslims in Malaysia were satisfied with both the conventional and Islamic insurances, Muslims were more confident with the Islamic insurance than conventional ones. Furthermore, the current Islamic insurance would be accepted with higher satisfaction by non-Muslims than Muslims. Third, the extended CS analysis successfully detected factors that determined satisfaction for both the conventional and Islamic insurances, suggesting the extended CS analysis was effective.

**Keywords:** Customer Satisfaction analysis, Islamic finance, Islamic insurance, religion, and Malaysia.

**JEL Classification:** C89, G21, G22, Z12, R10

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## Introduction

Muslims' consumption habits differ slightly from non-Muslims, necessitating additional considerations. Muslims adhere to both the Quran and Sunnah and refrain from acquiring Haram items. In some conservative countries, insurances are expected to follow Islamic law (*sharia*) (Souiden & Jabeur, 2015). Specifically, interest (*riba*), uncertainty (*gharar*), and speculation (*maysir*) should be avoided because they are impermissible means of earning based on the Islamic teaching (Htay & Salman 2013; Salman, 2014; Husin & Rahman, 2016a; Shaikh, Ismail, Ismail, Shahimi, & Shafiai, 2017; Salman et al., 2018; Salman & Hassan, 2020). Instead, Islamic insurances (family Takaful and general Takaful) was developed and have been provided as the Sharia-compliant substitute of conventional insurance (Hamid & Rahman, 2011; Afaq, 2019) since its emergence in Sudan in 1979 (Aziz, Husin, Hussin, & Afaq, 2019; Schmidt, 2019). It is pointed out that life insurances are more prevailed in non-Muslim countries than in Muslim countries (Souiden & Jabeur, 2015). Malaysia has been seen as one of the most leading countries of Islamic insurance, where Islamic insurance have been provided since 1985 (Sherif & Shaairi, 2013; Husin & Rahman, 2016a) thanks to the establishment of the first Takaful operating entity in 1984 based on the Malaysian Takaful Act (Sherif & Shaairi, 2013). However, the penetration rate of Islamic insurance is still low compared to conventional insurance even in Malaysia: It was 7.9 % in 2008 (Mohamed & Alhabshi, 2015). Husin (2019) quotes Ching (2019) and states that the penetration rate of Islamic insurance was 15.2% in 2018, which has increased from 14.5% in 2017. However, the penetration rate is still lower than that of conventional insurance.

An untapped Islamic insurance market has still existed in Malaysia (Husin & Rahman, 2016b; Hassan et al., 2018). Thus, this study examines how to improve the penetrating rate of Islamic insurance. Specifically, this study investigates factors that determine and increase consumers' satisfaction with Islamic insurance. Ali, Raza, Puah, and Amin (2019) point out that the literature investigating the determinants of selecting Islamic insurance is limited. In addition to Ali et al. (2019)'s study on Pakistan, Aziz, Husin, Hussin, and Afaq (2019) also treat the Pakistan case, and Coolen-Maturi (2013) investigates the determinants in the U.K. Salman and Hassan (2020) reveal the motivating factors in India. Karoui and Khemakhem (2019) examine Islamic consumption in general in Tunisia. There is some accumulation of studies in Malaysia (Sherif & Shaairi, 2013, Husin & Rahman, 2013, 2016a, b). However, most of these studies do not treat the satisfaction of Islamic insurance. Studies that explicitly examine satisfaction

include Amron, Usman, and Mursid (2018) for Indonesia. It is noteworthy that Muslims prioritize the Islamic spirit more than their satisfaction in alternative situations (Siddiqi, 1992; Wilson & Liu, 2010, 2011; Husin & Rahman, 2016a, b). Because Islamic insurances follow Islamic teaching, satisfaction can be one of the critical components for Muslims when selecting insurance. As such, the number of extant studies that examine consumers' satisfaction with Islamic insurance is limited. This study fills this knowledge gap by applying the extended Customer Satisfaction (CS) analysis, which is newly developed.

The Customer Satisfaction analysis has been conducted in many areas such as hotel services (Hemmington, Kim, & Wang, 2018), higher education (McLeay, Robson, & Yusoff, 2017), gaming industry (Huang & To, 2018), energy vehicle policy (Li, Long, & Chen, 2016), and online market (Hess et al., 2020) among others with some modifications (Vavra, 1997; Oh, 2001; Deng, 2007). However, the number of applications to the insurance is limited: Tsoukatos (2008) uses the CS analysis to assess the Greek insurance performance while Liu (2014) evaluates health insurance policy in Taiwan. This study investigates the satisfaction of conventional and Islamic insurance policyholders using extended CS analysis. If only positive correlations are detected, CS analysis is applicable currently. However, it is expected that conventional and Islamic insurance policyholders react opposite ways for some satisfaction factors. We extend the CS analysis to consider negative correlations and demonstrate real-life applications using Malaysian insurance data obtained through a questionnaire to cope with this situation.

The main results are as follows. First, this study shows that Malaysian Muslims' and non-Muslims' satisfaction towards conventional and Islamic insurances are different. Therefore, to improve satisfaction, other efforts are required for various religious citizens. Second, Malaysian non-Muslims are satisfied with Islamic insurance. Third, the extended CS analysis provides intuitively sound results, suggesting the effectiveness of this proposed method. There are some limitations to this study. First, this study does not explain why non-Muslims show high satisfaction towards Islamic insurance. Second, there are family Takaful and general Takaful, but this study does not specify the types in the investigation.

## Materials and Methods

### Questionnaire

The questionnaire was distributed to 500 insurance policyholders in Malaysia between December 20, 2019, and January 10, 2020. A snowball sampling was

applied for gathering data efficiently. There were no restrictions on respondents' religion. Malaysia was selected as one of the leading countries where Islamic insurance penetrated relatively high (Aziz, Husin, Hussin, & Afaq, 2019).

The main questions included the respondents' demographic factors (gender, age, educational background, religion, occupation, salary, and marital status; hereafter, referred to as demographic variables), twenty opinions on the current status of conventional and Islamic insurances (five questions on product features, five questions on the attribute of agents, five questions on marketing and promotion, and five questions on social and religious factors; hereafter, referred to as opinion variables), and the total satisfaction towards the conventional and Islamic insurances (hereafter, referred to as conventional and Islamic variables) (Table 1). The opinion variables were selected based on the existing studies (Salman and Hassan, 2020; Hassan et al., 2018; 2014; Salman & Htay 2014; Mohamed & Alhabshi, 2015; Souiden & Jabeur, 2015; Raza, Ahmed, Muhammad, & Qureshi, 2020): for example, five questions concerning agents were included in the questionnaire because agents were one of the driving forces for purchasing insurances (Dubinsky, Childers, Skinner, & Gencturk, 1988; Djafri, & Noordin, 2017). The respondents were asked to select one choice among categorized answers for demographic variables (e.g., select 0=female or 1=male for gender question in Table 1) and asked to choose one from a five-level Likert-type scale for opinion concerning conventional and Islamic variables (1 Strongly disagree, 2 Disagree a little, 3 Neither agree nor disagree, 4 Agree with a little, 5 Strongly agree).

**Table 1.**  
*Variables*

<b>Variable</b>	<b>Explanations</b>
Conventional	How much are you satisfied with conventional insurance?
Islamic	How much are you satisfied with Islamic insurance?
<b>Demographic variables</b>	
Gender	0=female, 1=male
Age	1=20-25years old, 2=26-30, 3=31-35, 4=36-40, 5=41-45, 6=46-50, 7=51-55, 8=56-60, 9=More than 60
Education	1=Certificate, 2=Diploma, 3=Bachelors, 4=Masters, 5=PhD, 6=Professional, 7=Others

Salary	1=Less than RM 1,999 2=RM 2,000-RM 2,999 3=RM 3,000-RM3,999 4=RM 4,000-RM 4,999 5=RM 5,000-RM 5,999 6=RM 6,000-RM 6,999 7=RM 7,000-RM 7,999 8=More than RM 8,000
<b>Opinion variables</b>	
Product1	The products with higher observability make you interested in adopting the new products.
Product2	Easy to understand the product, for example, clearly written policy on the payment of premium, coverage, claim process, surrender procedure, and benefits upon maturity
Product3	Clear illustration on the benefits of buying the products
Product4	Product features are flexible enough to modify based on the needs of the policyholders.
Product5	If you are given the option to choose among the products, you are interested in trying the new products if all the features and functions of the existing and new products are the same.
Agents1	An ethical, trustworthy, and responsible person
Agents2	Understand the need of the customers and able to suggest a suitable product
Agents3	Explain and disclose the truth regarding the product
Agents4	Maintain a good relationship with the customer all the times
Agents5	Ready to help whenever necessary
Marketing1	Advertising when using social networking services (SNS). Impacts by an influencer.
Marketing2	Advertising on the website.
Marketing3	Roadshows
Marketing4	We open booths in conferences, education fairs, gatherings, and supermarket events.
Marketing5	Advertising in cinemas, television channels, and radio
Social1	Society can influence you significantly to buy the new product, for instance, your parents, friends, office mates recommend you buy.

Social2	Collective discussion among peers and opinion leaders makes you participate in the new products.
Social3	A requirement by the employer makes you adopt the new products.
Social4	Society can influence you significantly to buy the new product, for instance, your parents, friends, office mates recommend you buy.
Social5	Collective discussion among peers and opinion leaders makes you participate in the new products.

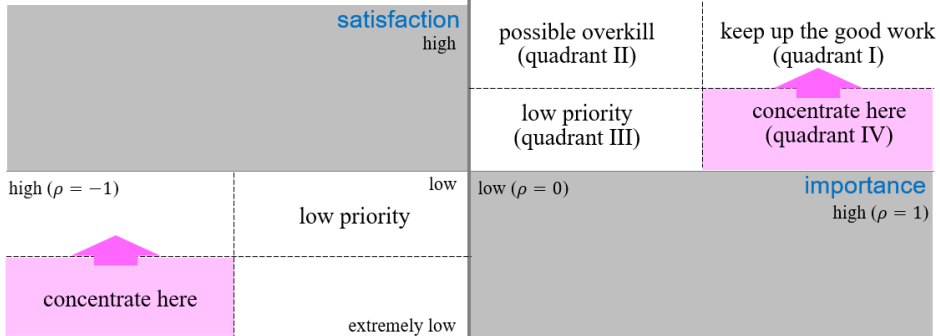
Note: For variables without explanations for choices, we set options as follows: 1 Strongly disagree, 2 Disagree a little, 3 Neither agree nor disagree, 4 Agree with a little, and 5 Strongly agree.

## Extension and Modification of the CS Analysis

The extended version of the CS analysis is developed in this study and applied to the Malaysian insurance policyholders' data obtained through the questionnaire. The CS analysis method is also known as the Importance-Performance Analysis, first developed by Martilla and James (1977). They take importance and performance to the horizon and vertical axes, respectively, and divide the area into four quadrants, which are referred to as "keep up the good work" (the quadrant I, upper right), "possible overkill" (the quadrant II, upper left), "low priority" (the quadrant III, bottom left), and "concentrate here" (the quadrant IV, bottom right), respectively (the upper right area of Figure 1). In the actual applications of the CS analysis, consumers' satisfaction is often used as performance (vertical axis), and consumer satisfaction is usually directly asked in the questionnaire. The horizon axis shows the importance of factors that explain product features. The value of correlations between the total satisfaction of product (conventional and Islamic variables in our case) and each factor (e.g., opinion variables in our case) is often used as an index of importance. Quadrant I is the area where both consumers' satisfaction and reputation are high, and therefore, the current high consumer satisfaction should be sustained for the factors in it. Quadrant II is the area where consumers' satisfaction is high but less critical, and therefore, too many efforts for factors in it result in the loss of efficiency. Quadrant III is the area where both satisfaction and importance are low, and therefore, no particular concern is required for the factors in it. Quadrant IV is the area where priority is high, but satisfaction is low, and therefore, efforts are necessary for the factors in this area to improve consumers' satisfaction.

**Figure 1**

Chart for extended CS analysis



Source: Created by the authors

## Application of the Partial Correlation Coefficient

This study has modification and extension of CS analysis (i.e., the Importance-Performance Analysis by Martilla and James (1977)). The improvement is explained in this subsection. The values of the partial correlation coefficient for importance are used in this study. The Likert scale gathers the data in the questionnaire, which brings the ordinal scale data. In the CS analyses, it is often the case to regard Likert scale data as the interval scale data and apply the Pearson correlation coefficient to obtain the importance values (the horizon axis). However, using the rank correlation coefficient for the ordinal scale data is more appropriate.

Moreover, it is recommended to use the partial correlation coefficient instead of the correlation coefficient, especially when the correlation between variables is high (Deng, 2007). Thus, this study uses Spearman's rank partial correlation coefficient (hereafter  $\rho$ ) to calculate the value of importance. As for satisfaction, the arithmetic mean of the demographic variables and the opinion variables are calculated and used as the value of satisfaction.

The value of  $\rho$  is calculated between the conventional and other variables (demographic variables except for religion and occupation and opinion variables) and between Islamic and other variables. The arithmetic means are calculated for demographic variables (except for religion and employment) and opinion variables.

## Extension of the CS analysis

In many existing CS studies,  $\rho$  takes only positive values. This study allows  $\rho$  to take negative values in the analysis (the bottom left area of Figure 1). Both Muslims and non-Muslims are asked to participate in the questionnaire and reply to conventional and Islamic insurances questions. Therefore, some variables that are positively related to the total satisfaction of, e.g., the Islamic insurance, would be negatively associated with the complete satisfaction of the conventional one. The extended CS analysis can treat such cases.

## Results

The number of respondents was 397. One reply was removed in the analyses because of an incomplete answer. The respondents were categorized into two groups based on their religion. Muslim and non-Muslim respondents were 322 and 74, respectively (Table 3).

The extended CS analysis was applied for six cases (= two products  $\times$  three groups). Here, two products were the conventional and Islamic insurances, and three groups were Muslims (322 respondents), non-Muslims (74 respondents), and a group of all respondents (396 respondents). The results of these 6 cases are shown in Figures 2 to 7. We selected variables whose partial correlation was statistically significant at the 10% level. Because there were no variables that satisfied this criterion in the case of the conventional insurance for non-Muslim, we used the 20 % level for this case. For the sake of comparison, we arbitrarily draw red and blue diagonal lines. Note that the value of the vertical axis is transformed into a negative value if the value of  $\rho$  is negative so that results are shown in the bottom left area.

Furthermore, plots in the upper right area would improve people's satisfaction if located in more upper positions. Plots in the bottom left area should be removed or avoided because these are factors that decrease people's satisfaction. When considering both satisfaction and importance, plots below the diagonal line should be prioritized in improvement. The highest priority should be put on plots in two red-colored areas in Figure 1.

Let select the blue diagonal line as a rule of thumb and suppose that plots below the diagonal lines should be improved. Let us examine the locations of plots of Muslims and non-Muslims. All plots were located above the blue diagonal lines in the upper right area when using all or Muslims' data (Figures 2, 3, 4, and 6). In contrast, all plots were located below the blue diagonal lines when using non-



Muslim's data (Figures 5 and 7). In the bottom left area, almost all plots were located below the blue diagonal lines when using all or Muslims' data. At the same time, only one data was available (with  $p < 0.2$ ) when using non-Muslims' data. It can be inferred that the results of all data and those of Muslims were almost the same: the similarity of the above results for all data and Muslim data and the percentage of Muslims among respondents (322 out of 396 respondents; 81%) indicated so. The above results also suggested that the positioning of Muslims and non-Muslims was the opposite.

The selected variables for Muslims and non-Muslims differed primarily for conventional and Islamic insurances, implying improvements in insurance policyholders' satisfaction required different efforts. There were 5, 3, 7, and 3 variables that were selected for the conventional insurance for Muslims (CM) and non-Muslims (CN), and the Islamic insurance for Muslims (IM) and non-Muslims (IN), respectively (Table 4). There were no commonly selected variables in conventional insurance for Muslims (CM) and non-Muslims (CN). Both groups widely established one variable (Marketing5) in Islamic insurance (IA, IM, and IN). When comparing conventional and Islamic insurances, four variables were commonly selected in both insurances: Marketing1, 3, 4, and Social4 (Table 4). However, the positioning of Marketing1 was different for conventional and Islamic insurances (Figures 2, 4, and 7).

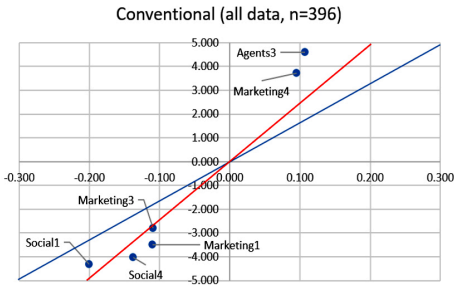
There were some tendencies for the satisfaction of Muslims and non-Muslims for both conventional and Islamic insurances. Muslims tended to be more satisfied with Islamic insurance than conventional insurance: the number of plots in the bottom left and the upper right areas were 4 (N in Table 4) and 1 (P in Table 4) for the conventional insurance, and 4 and 3 for the Islamic insurances, respectively (Table 4). On the other hand, non-Muslims were satisfied with conventional and Islamic insurances: most plots were in the upper right areas. However, as stated above, there was room for improvement. Some plots of non-Muslims were located below the blue diagonal lines.

**Table 3**  
*Frequency distribution*

<b>Demographic</b>	<b>n</b>	<b>%</b>	<b>Cumulative %</b>
<b>Gender</b>			
Male	174	43.9%	43.9%
Female	222	56.1%	100.0%
<b>Age (years old)</b>			
20-30	52	13.1%	13.1%
31-40	177	44.7%	57.8%
41-50	122	30.8%	88.6%
51-60	39	9.8%	98.5%
61-	6	1.5%	100.0%
<b>Educational background</b>			
Certificate	29	7.3%	7.3%
Diploma	81	20.5%	27.8%
Bachelors	110	27.8%	55.7%
Masters	85	21.5%	77.2%
PhD	54	13.7%	90.9%
Professional	36	9.1%	100.0%
<b>Marital status</b>			
Married	314	79.3%	79.3%
Single	48	12.1%	91.4%
Others	34	8.6%	100.0%
<b>Religion</b>			
Muslim	322	81.3%	81.3%
Hindu	46	11.6%	92.9%
Buddhist	27	6.8%	99.7%
Others	1	0.3%	100.0%
<b>Annual salary (RM.)</b>			
-1,999	40	10.1%	10.1%
2,000-2,999	66	16.7%	26.8%
3,000-3,999	76	19.2%	46.0%
4,000-4,999	73	18.4%	64.4%
5,000-5,999	57	14.4%	78.8%
6,000-6,999	47	11.9%	90.7%
7,000-7,999	27	6.8%	97.5%
8,000-	10	2.5%	100.0%
<b>Occupation</b>			
Private sector	137	34.6%	34.6%
Government sector	131	33.1%	67.7%
Self-employed	112	28.3%	96.0%
Retired	10	2.5%	98.5%
Unemployment	6	1.5%	100.0%

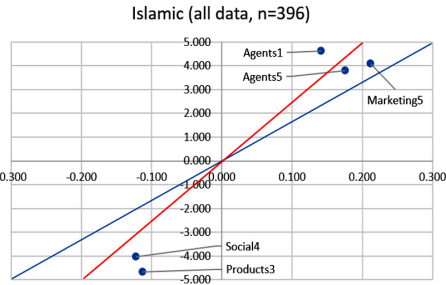
**Figure 2**

CS chart for conventional insurance of all data ( $p < 10\%$ )



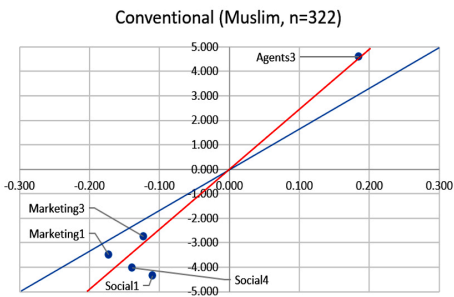
**Figure 3**

CS chart for Islamic insurance of all data ( $p < 10\%$ )



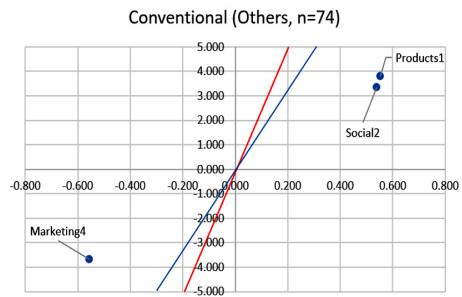
**Figure 4**

CS chart for conventional insurance of Muslims ( $p < 10\%$ )



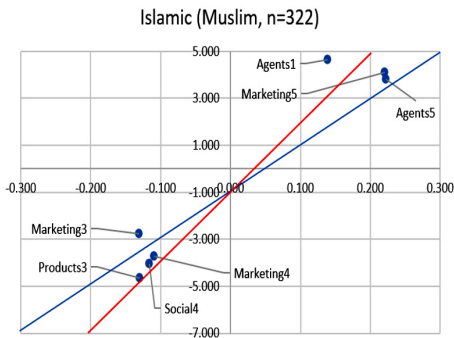
**Figure 5**

CS chart for conventional insurance of non-Muslims ( $p < 20\%$ )



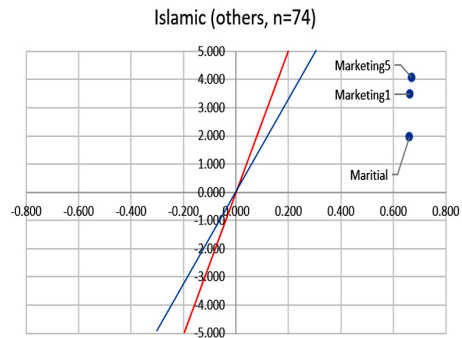
**Figure 6**

CS chart for Islamic insurance of Muslims ( $p < 10\%$ )



**Figure 7**

CS chart for Islamic insurance of non-Muslims ( $p < 10\%$ )



**Table 4**  
Summary of the selected variables in CS analyses

	conventional			Islamic		
	(CA) all	(CM) Muslim	(CN) non-Muslim	(IA) all	(IM) Muslim	(IN) non-Muslim
Marital						P
Product1			P			
Product3				N	N	
Agents1				P	P	
Agents3	P	P				
Agents5				P	P	
Marketing1	N	N				P
Marketing3	N	N			N	
Marketing4	P		N		N	
Marketing5				P	P	P
Social1	N	N				
Social2			P			
Social4	N	N		N	N	
Criteria	p < 0.1	p < 0.1	p < 0.2	p < 0.1	p < 0.1	p < 0.1

P: plot locating in the upper right of relevant CS chart; N: plot locating in the bottom left area of appropriate CS chart

## Discussions

The extended CS analysis enabled us to grasp the specific needs of consumers when supposing a particular product as a baseline. In this study, insurance, in general, was used as the baseline, and the following main results were obtained. First, the positioning of plots of Muslims and non-Muslims was the opposite. Second, the selected variables for Muslims and non-Muslims differed for conventional and Islamic insurances. The results above suggested that improvement in satisfaction for Muslims and non-Muslims required various efforts because different variables were selected. Third, Muslims tended to be more satisfied with Islamic insurance than conventional insurance because the latter plots were located more in the upper right area. Non-Muslims were confident with conventional and Islamic insurances because 5 out of 6 plots were found in the upper-right.

Muslims who were not satisfied with conventional insurance (with general insurance) explained the need to provide Islamic insurance. Interestingly, there were no plots in the bottom left area for Islamic insurance in the case of non-Muslims (Figure 7). It implied that the current Islamic insurance would be accepted with higher satisfaction by non-Muslims than Muslims. To the best of the authors' knowledge, this study was the first to show this fact. This result was also interesting and informative because the extent study showed that the purchase intention got lower when consumers were told that the insurance they were about to purchase was Islamic in non-Muslims majority countries (Schmidt, 2019). Because the questionnaire was conducted in Malaysia, where more than half of the people are Muslims, non-Muslims are expected to have enough knowledge concerning Islamic insurance and assimilated Islamic finance, resulting in a high level of satisfaction (Ahmad, Hanifa, & Hyo, 2019).

On the other hand, some plots of Muslims are located in the bottom left area, implying some features cause dissatisfaction. It indicated that efforts were required to remove/reduce these features when selling Islamic insurance for Muslims. These results were intuitively sound, suggesting the validity of applying the extended CS analyses to our data. Next, some variables were examined. In what follows, the results of Muslims are mainly discussed. The plots of Agent1 (An ethical, trustworthy, and responsible person), Agent5 (Ready to help whenever necessary), and Marketing5 (Advertising in cinemas, television channels, and radio) of the Islamic insurance in case of Muslims located in the upper right area (Figure 6). All three plots were located above the blue diagonal line. Thus, Muslims were satisfied with these features. It was natural that Muslims were confident with variables such as Agent1 and 5 because these were something to do with the ethics and trustiness of agents and could be separated from non-Islamic worldly commercial activities. It was interesting that Muslims found it appropriate that information on Islamic insurances could be provided through cinemas, television channels, and radio. It could be inferred such information provision cordially followed sharia and other Islamic rules, if necessary.

The plots of Product3 (Clear illustration on the benefits of buying the products), Marketing3 (Roadshows), Marketing4 (Opening the booths in events such as conferences, education fairs, convocation, and in the supermarket), and Social4 (Society can influence you significantly to buy the new product, for instance, your parents, friends, office mates recommend you to buy) of the Islamic insurance in case of Muslims located in the bottom left area (Figure 6). Marketing3 and Social4 were also selected by Muslims in conventional insurance (Figure 4). Moreover,

the plots of Social4 for both conventional and Islamic insurances were located below the blue diagonal line, implying improvement was necessary. The plots of Marketing3 were situated above and below the blue diagonal lines for Islamic and conventional insurances, respectively.

Product3 and Social4 were probably selected because these factors intervened in Muslims' inner decisions. The results implied that the benefits of Islamic insurance should be evident for Muslims, and thus they felt uncomfortable. The purchase of Islamic insurance solely depended on each Muslim without any influence from society or other people. Thus, if Muslims were provided too much illustration on the benefits or were recommended too much by others, they would feel dissatisfied. These results seemed consistent with existing studies (Syed, Hawati, Zanariah, Che Aniza, & Mst. Nilufar, 2012; Husin & Rahman, 2016a). The studies also pointed out that the reference groups had little effect on individual Muslims when the participation rate of the Islamic insurance was low (Rutter & Bunce, 1989; Husin & Rahman, 2016a).

It was also interesting that Marketing3 and 4 were selected. These results indicated that roadshows and opening booths in events might cause Muslims' dissatisfaction.

There were some remaining problems and research issues to be tackled in future research. First, this study did not explain why non-Muslims showed high satisfaction towards Islamic insurance. It was natural to suppose the Islamic insurances had more constraints than conventional insurances, implying lesser satisfaction. For example, Husin and Rahman (2016a) pointed out that "Muslims with a higher level of religiosity preferred to stay with the Islamic type of financial instruments even if it does not provide sufficient or compatible returns." They also stated that "Attitude and behavior of human beings are based on their beliefs or religion," as they quote Safiek (2009) and Echchabi and Hassanuddeen (2012). Therefore, it may often be the case that the Islamic insurances had more restrictions. Future research may clarify why non-Muslims had high satisfaction from Islamic insurance.

Second, there are two types of insurances (family *takaful* and general *takaful*), but this study did not specify the types in the questionnaire to reduce the number of questions. There might be some differences in Muslims' responses between family and general Takaful if types of Islamic insurance was selected. Husin and Rahman (2016b) point out that Muslims' subjective norm does not explain their intention to purchase family Takaful probably because they had a high level of knowledge towards family Takaful and trivial opinions of other people may not influence their

purchasing behavior. It may not be the case for non-Muslims. It is interesting to investigate the relationship between satisfaction and others' opinion for Muslims and non-Muslims: it can be expected that Muslims react differently towards family and general Takaful. In contrast, non-Muslims may respond the same way.

## Conclusion

This study investigated the satisfaction of both the conventional and Islamic insurances as Malaysian citizens, an example. The questionnaire was conducted for Muslims and non-Muslims and examined their responses using extended CS analysis. There were two main contributions. First, this study examined the current status of Muslims' and non-Muslims' satisfaction for both the conventional and Islamic insurances assuming the general insurance as the baseline. Second, this study modified and extended the CS analysis: 1) this study used the Spearman's rank partial correlation coefficient,  $\rho$ , to calculate the importance value, and 2), the negative value of  $\rho$  was allowed in the extended CS analysis.

There were several findings. First, the current status of Muslims' and non-Muslims' satisfaction towards conventional and Islamic insurances had different tendencies, implying that insurance companies required additional efforts to improve people's satisfaction from other religions. Second, unlike the results obtained in a non-Muslim majority country, this study showed that non-Muslims in Malaysia were satisfied with Islamic insurance. Third, the extended CS analysis provided intuitively sound results, implying the effectiveness of this proposed method. Because the penetration ratio of Islamic insurance is still low even in Muslim majority countries, some efforts to improve the current status will be required. This study detected several factors that should be improved or removed to increase the satisfaction of Muslims with Islamic insurance.

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