An Exploratory Study of Halal Awareness Among Japanese People for Identifying Gamification Contents

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ABSTRACT

By the end of this century, it is expected that Muslims could become the world's largest religion. This could be a reason why Muslim populations in Japan keep increasing year by year since 1900s. Due to this situation, the needs for Japanese people to understand more about Muslim needs such as Halal terms for making them live in harmony with Muslim community is crucial. That is why the objective of this paper is to study the level of Halal awareness among Japanese people for Gamification contents. A survey is used as to get response among Japanese people. The survey was performed on eighty-five Japanese people who selected randomly from online survey. The findings show that the level of understanding of Halal terms among Japanese still low and need to be enhanced. Most of the Japanese people heard about the words Halal but majority of them still do not heard about the words Haram (Non-Halal). Most of respondents associate Halal with only the food product but actually Halal also was associated with other products such as food ingredients, meat product and also product from animal. Majority of the respondents aware of the Halal terms which their related it to the food without pork or alcohol but still not familiar with the concept of Halal slaughtering method. Besides that, majority of the respondents agreed that the new Gamification need to be introduced for understanding about Halal terms. The results from this study revealed that to increase the level of awareness about Halal terms among Japanese people, the contents about Halal foods, Halal ingredients and Halal meats needs to be focused for developing this new Gamification.

1. Introduction

Since the past decades, the world population of Muslims has been increases approximately at about 1.6 billion in 2013 and is estimated to reach 2.9 billion by 2050. This making up 26% of the world population. Japan which can be categorized as a Muslim minority country also experienced a growth in Muslim population. As reported in Statista [1], the Muslim populations is about 7.1% which can be categories as others in 2017 (See Figure 1). As reported in Kim and Mercurio [2], Islam has

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been introduced to Japanese in 1900s through trade and ally-relations throughout Meiji period. The first Muslim Japanese known as Mitsutaro Takaoka and Bumpachiro Ariga which revert to Islam in 1909 [3]. Then, in 1980s, the number of Muslim populations growing in Japan. Mainly due to the needs of labor lead to immigration wave from Muslim-majority countries to Japan which they build Mosques, open Halal restaurants together with Halal specialty stores [2]. In 2013, Tokyo was announced as the next Olympic host and Japanese government started relax-es the visa requirements for Southeast Asian countries including Malaysia. This leads to increasing Muslim tourists visiting Japan. In 2016, there are approximately 130,000 Muslims living in Japan which divided by overseas Muslims about 120,000 and Japanese Muslims about 10,000 based on data from Tanada [4]. While in 2017, the Japanese Government has increased their hospitality service for a Muslims, such as introducing prayer rooms in airports and high tourist traffic areas. The government also backed subsidies available for businesses with Halal certificates. This growing support in line with the Olympic hospitality for international tourists. In 2020, there are project-ed to be over 200,000 Muslim tourists visiting Japan. As mentioned by Professor Tanada [4] from Waseda University "By the end of this century, Muslims will overtake Christians to become the world's largest religion in terms of followers. In fact, it is not uncommon to find Muslim community in our surroundings. It is important for us to first lend a listening ear to better understand them in order for us to live in harmony with the Muslim community,". This could be a reason that Japanese people needs to understand more about Muslim needs such as Halal for making them live in harmony with Muslim community. Even though, this is not happened, the level of understanding about Muslim needs such as Halal terms still low among Japanese people. That is why the objective of this paper is to study the level of Halal terms awareness among Japanese people for identifying Gamification contents.
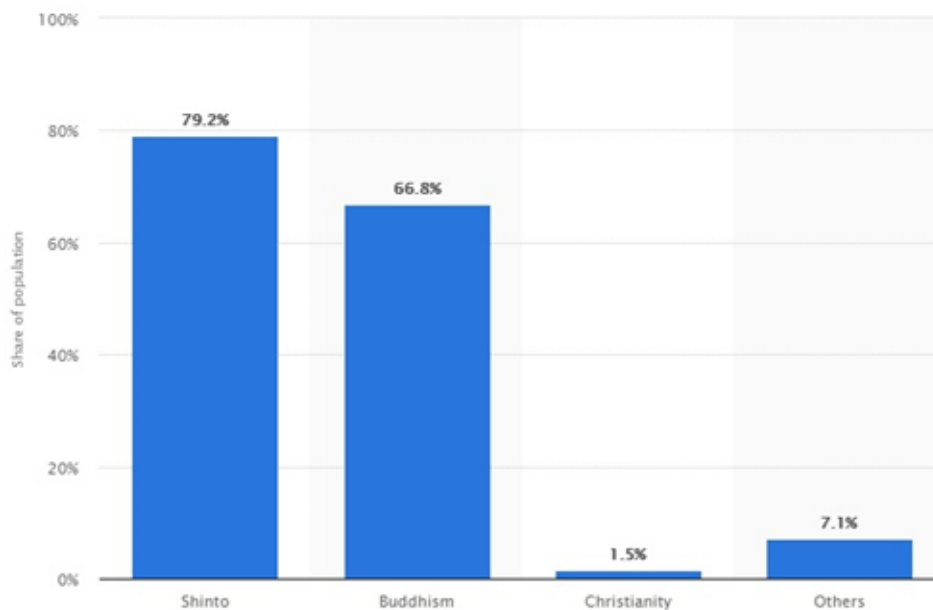

Fig. 1. Japan religious affiliations in 2017

2. Related Works

They are a lot of study about the Halal awareness been conducted. As mentioned by Prasolova-Forland and Divitini [5], the social awareness been defined as an awareness of the social situation in a group or community in a shared environment (physical or virtual or both) with a time span from a short and long-term memory of a community's social life [5]. The study related to Halal awareness

has been conducted by Ahmad *et al.,* [6], they attempt to recognize Halal food awareness among Muslim customers in Klang Valley, Malaysia with their focus area of study is the Klang Valley specifically; Bukit Bintang, Ta-man Tun Dr Ismail and Kampung Datuk Keramat. They found that, the levels of Halal food awareness among Muslim customers were influenced by their understanding of Halal concepts. Majority of them normally choose their food outlet based on price and taste instead of Halal logo and certification. Another study by Alhabshi [7] look on examining the possibility of Japan excelling in the Halal industry, namely in the food business but found that Japan is still working on this issue by way of seeking partnership with key Muslim state and the progress is slow. Besides that, Nurcahyo and Hudrasyah [8] study the factors that affect Halal product purchase intention such as Halal awareness, Halal certification and personal societal perception. From these three factors, they found Halal awareness does not affect product purchase intention. Study by Amarul *et al.,* [9] on the level of understanding of halal certification awareness in small and medium micro business actors found that most business actors who have run their business more than or equal to 2 years, but less than 5 years are very concerned with labeling their products. Then, study by Rahim et al. [10] try to identify the factors that influence the awareness and perception of Muslim consumers on Halal cosmetics and personal care products revealed that advertising, knowledge, and attitude are all factors influence the awareness and perceptions. Yunus *et al.,* [11] investigate on how the Halal awareness, Islamic brand orientation and product ingredient could facilitate in predicting the purchase-intention among Muslim consumers in Malaysia. Findings show that Halal awareness and product ingredients have influenced Muslim's intention to buy Halal packaged foods that are produced by Non-Muslim manufacturers. In other aspect of Halal Awareness, Imad and Ichimura [12] has introduced an Android application for Muslims who live in Japan to know whether the food of the grocery and supermarket are Halal or not. By introducing this kind of applications which is work and has demands can increases the awareness of Japan community toward Halal. Other than Androids applications, the gamification also has been introduced by some of the researchers in their applications.

Gamification is an integration of game elements and game thinking in activities that are not games [13]. Zichermann and Cunningham [14] define gamification as using game mechanics to build a brand, get users interested, and change their behaviour. As Deterding *et al.,* [15] say, "gamification involves using elements of gainfulness, gameful interaction, and gameful design with a specific goal in mind." Seaborn and Fels [16] say that "gainfulness refers to the lived experience, gameful inter-action refers to the objects, tools, and contexts, and gameful design refers to the process of making a gameful experience." Gamification is more about getting people to do things, maybe in a structured way and by following rules, so they can get different results [15]. But gamification is not the same as games in terms of why people play. Gamification focuses on changing how players interact with their environment and other players, who could be other customers or service providers. The goal is to get players to interact with each other and their environment in a meaningful way so that they can get rewards. Gamification is also a promising avenue for enhancing user engagement [17]. They are some of the product that applied gamification for engaging and attracting users for their product such as Mobile Eatery Recommendation [18], improving Jawi skills [19], play therapy approaches [20], mobile apps for senior citizens in digital era [21], and Gastronomic Questionnaires [22].

3. Methodology

The methodologies of this study are shown in Figure 2. It consists of study design, sampling, instrument, data collection method and data analysis.
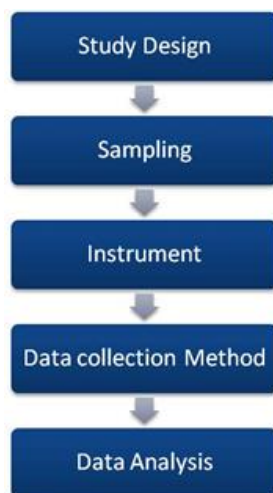
Fig. 2. Methodology

3.1 Study Design

This study has designed the research flow from the beginning until completed. Many aspects and limitations of this study have been considered. This study is attempting to examine the level of Halal terms awareness among Japanese people and identify the Gamification contents. It starts with identifying the research objective based on the problem of this case. Then a literature review to have knowledge of the theoretical foundation been conducted. When the theoretical foundation been found, a list of important variables that required to be measured in this research were selected. Then, the methodology that wants to be used on this research was determined. Other than that, an interview with the experts from Halal Industry was also conducted. The question regarding the Halal awareness was asked, which involved one of the prominent Professors who experts in Halal from University in Japan. The feedback from this interview was used for developing the instrument.

3.2 Sampling

In this study, convenient sampling was used. The respondents among Japanese people from Ishikawa Prefecture were selected. In gaining information from the target respondents, convenience sampling was chosen based on the easy-access issue. This method is also inexpensive and required minimum time compared to the other techniques.

3.3 Instrument

A structured questionnaire was prepared as an instrument for gathering the information from the respondents. The instrument consists of the multiple choice closed-ended questions and Likert-scale questions. Likert-scale questions will enable the respondents to express their level of agreement and select the best answer that suits them. This study is using five points of responses from the Likert-scale questions. The Likert scale was used in the questionnaire 1(strongly disagree) - 5(strongly agree). While multiple choice closed-ended questions allowed respondents to choose from either a pre-existing set of dichotomous answers, such as yes/no, true/false, or multiple choice with an option for "other" to be filled in, or ranking scale response options [13].

The questionnaire consists of three main section which are Section A, Section B and Section C. Section A consist of 11 items which survey on the knowledge of Halal and Haram (Non-Halal). Section B consist of 8 items which survey on the Halal awareness. Section C consist of 6 items which survey

on the demographics of the respondents. The survey has been prepared in Japanese Language. The survey has been produced in Google Form and the link being sent to the targeted respondents who are among Japanese people. The survey can be access from this link https://goo.gl/forms/4YrpbwlX89TNd4dr1

3.4 Data Collection Method

At this phase, the process of data collection was conducted. The data collection was used the questionnaire being prepared in the previous phase. A questionnaire is used to measure the variables of interest. As mentioned earlier, the questions and statements have been developed guided by previous study and interviews with experts. The link of the questionnaire been distributed randomly online to all Japanese people from different area around Japan. From all the questionnaire that being distributed, only 85 respondents have been replied and participate in the survey.

3.5 Data analysis

At this phase, the data analysis was conducted based on the feedback from questionnaire. The descriptive analysis was used to analyse the results. It was utilized to better explain the result or phenomena happened in this study. The analysis was done to ensure that the quality of the data so that the result generated was accurate. Finally, the analysis was implemented to avoid or at least to minimize bias when interpret the result of the study. In the context of this study, the different background of Japanese people may provide variation of answer and different level of awareness in Halal terms. In addition, descriptive analysis was used to reveal the answer of research objective about the level of Halal terms awareness among Japanese people for identifying Gamification contents. The result would be analysed towards the interpretation of frequency and percentage score obtained in the form of a sentence to reach conclusion.

4. Results and Discussion

The demographic background for the total number of 85 respondents is presented in Table 1.

Table 1
Demographics of features respondents

Attribute	Level	Frequency	Percentage
Age	18-24	40	47.1
	25-29	12	14.2
	30-39	18	21.2
	40-49	6	7.1
	50-59	7	8.2
	Above 60s	2	2.2
Gender	Male	63	74.1
	Female	22	25.9
Marital Status	Single	60	70.6
	Married	25	29.4
Education	Secondary School	1	1.2
	High School	10	11.8
	Degree	33	38.8
	Master	25	29.4
	PhD	15	17.6
	Others	1	1.2

Religion	Buddhism	50	58.8
	Christianity	5	5.9
	Bahá'í faith	1	1.2
	Hinduism	1	1.2
	Others	27	32.9
Occupation	Managers	2	2.4
	Professionals	14	16.5
	Engineer/ professionals assistant	4	4.7
	Clerical support workers	3	3.5
	Service and sales workers	4	4.7
	Production process workers	1	1.2
	Worker for transportation	1	1.2
	Security worker	1	1.2
	Student	53	62.4
	Housewife	1	1.2
	Others	1	1.2

4.1 Respondents' Profile

Descriptive analysis was used to analysis the respondents' demographic profile which produces the percentage and frequency of the respondents' background.

The analysis of the respondents' background covered age, gender, marital status, education, religion, and occupation. The result shows that most of the respondents are male (74.1%) and female (25.9%). Age distribution is quite balanced with most of the respondents came from the range 18-24 years old (47.1%), followed by respondents ranged around 30-39 years old (21.2%), followed by respondents ranged around 25-29 years old (14.2%), followed by respondents ranged around 50-59 years old (8.2%) and (7.1%) from 40-49 years old. Researcher believed that these five groups of respondents contributed to the findings of this research. Most of the respondents are single (70.6%). Respondents with degree education (38.8%) dominated this survey compared to Master (29.4%), Ph.D. (17.6%), High School (11.8%), (1.2%) secondary school and others which refer to College (1.2%).

Majority of the respondents are Buddhism (58.8%). This is followed with others (32.9%) which are among them Polytheism, Atheistic, Shinto, Muslim, No religion, and None. Interestingly among these religions, majority of them has no religion (15.3%) and some of them mentioned as None (7.1%) which not refer to any religion listed in the question. Besides that, some of the respondents are Christianity (5.9%).

Majority of the respondents are Students (62.4%), followed by working as professional (16.5%), followed by working in Service Industry and Engineer (4.7%), followed by working as Clerk (3.5%), followed by working as Managers (2.4%) and the rest were security worker, housewife, skill agricultural, construction, production process workers and workers for transportation (1.2%) respectively. None of the respondents are working in Skilled agricultural and Construction workers.

4.2 Knowledge of Halal and Haram (Non-Halal)

To understand about knowledge of Halal and Haram (Non-Halal) among Japanese people, the question which are related to these terms were asked to the respondents in this part. It consists of six questions.

The first questions ask, "Where did you first hear the word Halal?" (See Figure 3).
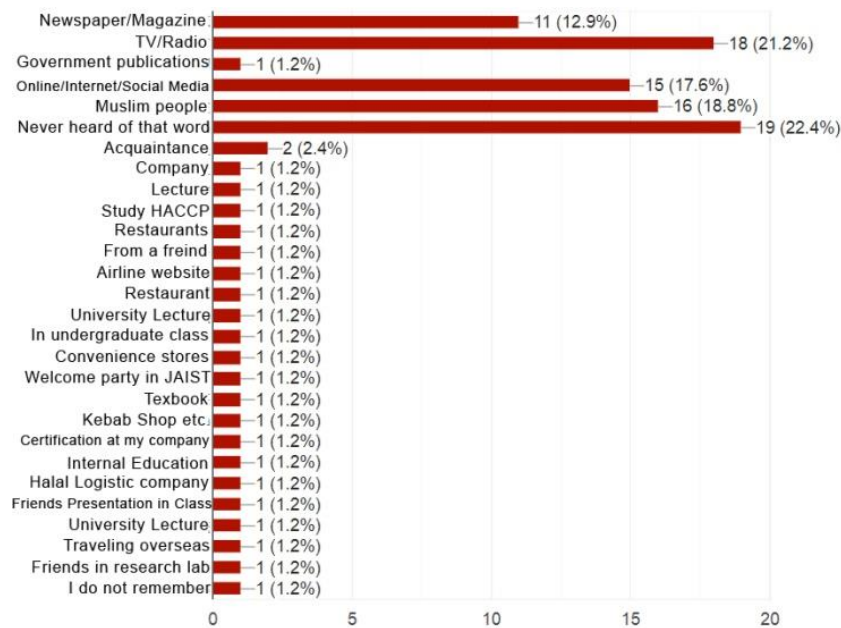
Fig. 3. Results of first hear the word Halal

The results show that majority of the respondents answered that they never heard of the word Halal which about 22.4%. While about 21.2% heard from TV/Radio, 18.8% from Muslim people, 17.6% from Online/Internet/Social Media, 2.4% from acquaintance and about 1.2% has answered by stating that their heard from various source such as company, lecture, study HACCP, restaurants, from friends, airline website, university lecturer, in under-graduate class, convenience store, welcome party, textbook, kebab shop, internal education, Halal logistic company, presentation in class, travelling oversea, and I do not remember.

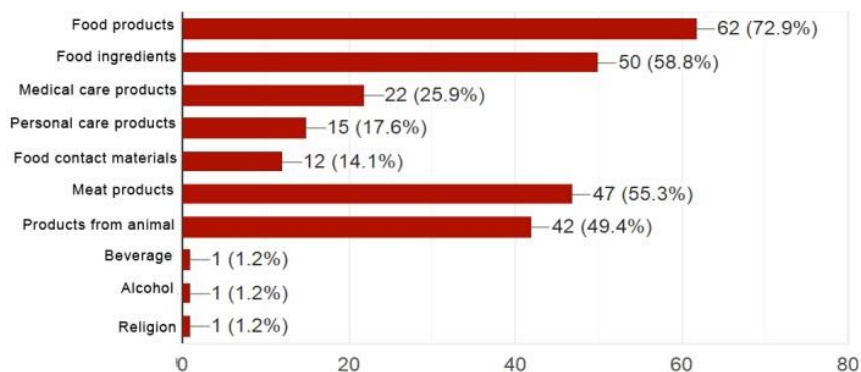The second question ask, "Halal normally associate with the following" (See Figure 4).

Fig. 4. Results of Halal associate

The results show that majority of the respondents answered that Halal normally associated with Food products which about 72.9%. This is different with Mohsin et al. [14] which mentioned that the Halal concept is not just applied to food alone but including all facets of life. While about 58.8% associate Halal with food ingredients, 55.3% associate Halal with meat products, 49.4% associate Halal with products from animal, 25.9% associate Halal with medical care products, 17.6% associate Halal with personal care products, 14.1% associate Halal with food contact materials and about 1.2% associate Halal with beverage, alcohol, and religion.

The third questions ask, "Where did you first hear the word non-Halal?" (See Figure 5).
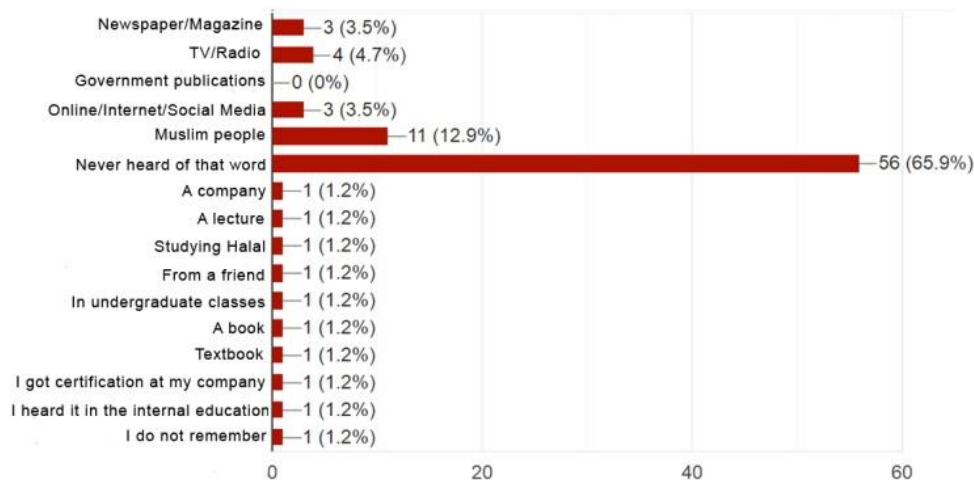
Fig. 5. Results of first hear the word non-Halal

The results show that majority of the respondents answered that they never heard of the word Haram (Non-Halal) which about 65.9%. While about 12.9% heard from Muslim people, 4.7% from TV/Radio, 3.5% from Online/Internet/social media and Magazine/Newspaper, 0% from government publication. The other results of 1.2% have answered by stating that their heard the word from various source such as a company, a lecture, studying Halal, from a friend, undergraduate class, a book, textbook, company certification, internal education, and I do not remember.

The fourth question ask, "Which of the following are Haram (Non-Halal) substances for Muslim" (See Figure 6).
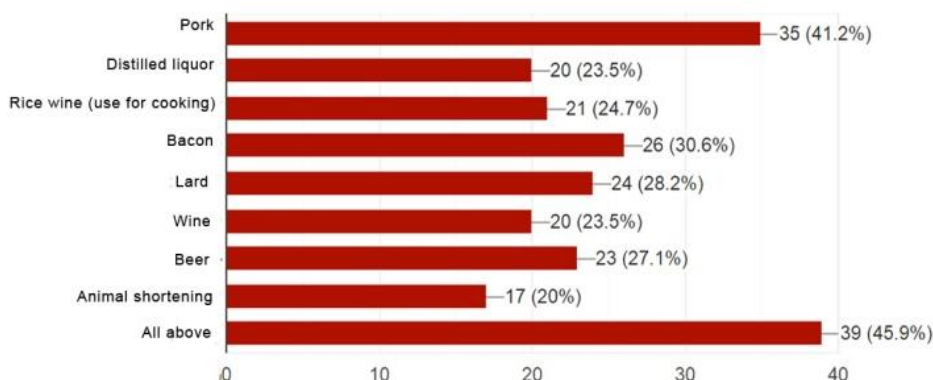

Fig. 6. Results of the Non-Halal substances

The results show that majority of the respondents answered that all the substances list is Haram (Non-Halal) which about 45.9%. This follows with 41.2% answered pork as the substances, 30.6% answered bacon as the substances, 28.2% answered lard as the substances, 27.1% answered beer as the substances, 24.7% answered rice wine (use for cooking) as the substances, 23.5% answered wine and distilled liquor as the substances and about 20.0% answered animal shortening as the substances.

The fifth questions ask, "Which of the following substances that may Halal or Haram (Non-Halal) for Muslim" (See Figure 7).
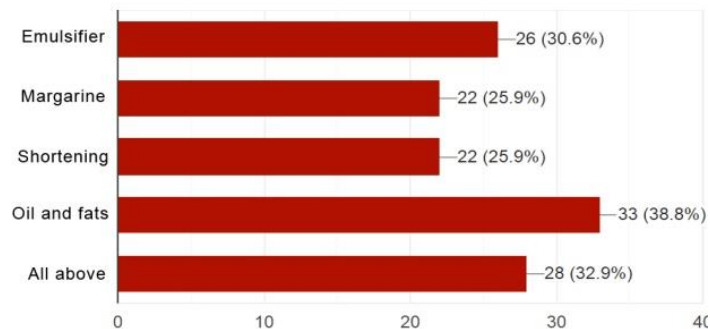
Fig. 7. Results of the Halal or Non-Halal substances

The results show that majority of the respondents answered that the substances of oil and fats may Halal or Haram (Non-Halal) for Muslim which about 38.8%. This follows with 32.9% answered "All above" substances, 30.6% answered emulsifier as the sub-stances and 25.9% answered margarine and shortening as the sub-stances.

The sixth questions ask, "Which of the following are considered Haram (Non-Halal) in Islam" (See Figure 8).
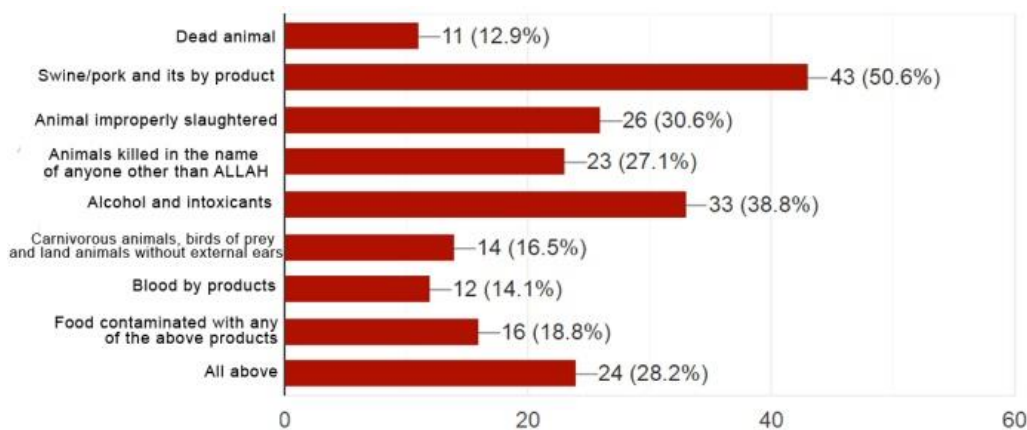

Fig. 8. Results of considered Non-Halal in Islam

The results show that majority of the respondents answered that swine/pork and it's by product are considered Haram (Non-Halal) in Islam which about 50.6%. This follow with 38.8% answered alcohol and intoxicants considered as Haram (Non Halal), 30.6% answered that animal improperly slaughtered considered as Haram (Non Halal), 28.2% answered that "All above" considered as Ha-ram (Non Halal), 27.1% answered that animal kill in the name of anyone other than Allah considered as Haram (Non Halal), 16.5% answered that Carnivorous animals, birds of prey and land animals without external ears considered as Haram (Non Halal), 14.1% answered that blood by products considered as Haram (Non Halal), and 12.9% answered that dead animal considered as Haram (Non Halal).

4.3 Halal Awareness

To understand about Halal awareness among Japanese people, the question which are related to these terms were asked to the respondents in this second part. There are eight statements regarding Halal awareness were asked to the respondents. The statements are

i. Halal is in Arabic word meaning lawful or permitted,
ii. The opposite of Halal is Haram (Non-Halal) which means unlawful or prohibited,
iii. Halal and Haram (Non-Halal) is talking about food and the slaughter of animal,
iv. Halal food means food which does not contain pork or alcohol,
v. Halal products available in Japan,
vi. Halal medicines are needed by Muslim patients,
vii. Any kind of meat is Haram (Non-Halal) except being slaughtering by Halal method,
viii. The Jewish faith also applied the same principles of Halal slaughtering method,

Table 2 showed detailed level of understanding among Japanese people on Halal awareness. It presents the mean scores and standard deviations of the constructs used in this study. Likert scale was used in obtaining the answer.

Table 2
Level of understanding on Halal awareness among Japanese people

| Attribute	n[a]	M[b]	SD
Halal is in Arabic word meaning lawful or permitted.	85	3.12	1.39
The opposite of Halal is Haram (Non-Halal) which means unlawful or prohibited.	85	3.01	1.47
Halal and Haram (Non-Halal) is talking about food and the slaughter of animal.	85	2.98	1.34
Halal food means food which does not contain pork or alcohol.	85	3.45	1.43
Halal products available in Japan.	85	3.67	1.36
Halal medicines are needed by Muslim patients.	85	2.81	1.5
Any kind of meat is Haram (Non-Halal) except being slaughtering by Halal method.	85	2.55	1.41
The Jewish faith also applied the same principles of Halal slaughtering method.	85	2.23	1.27

[a]Number of respondents
[b]Average opinion of the respondents on Halal awareness from 1 to 5 (1=very low, 2=below average, 3=Average, 4=Above average, 5=Very high)

The results showed that based on several statements provided among them were "Halal products available in Japan", "Halal is in Arabic word meaning lawful or permitted", "The opposite of Halal is Haram (Non Halal) which means unlawful or prohibited", "Halal food means food which does not contain pork or alcohol", majority of them agreed on the statement provided where the average of the answer ranging from 3.01 to 3.67. Its show that, they are aware of the Halal concept which related to the food which should not contain with pork or alcohol.

Besides that, majority of them disagreed on the statement "Halal medicines are needed by Muslim patients", "Any kind of meat is Haram (Non-Halal) except being slaughtering by Halal method", "The Jewish faith also applied the same principles of Halal slaughtering method", "Halal and Haram (Non-Halal) is talking about food and the slaughter of animal". The average of this disagreement ranging from 2.23 to 2.98. It's shows that, majority of them still confuse on the Halal statement related with the concept of slaughtering by Halal method.

4.4 Gamification for Understanding Halal Terms

In this part, the question related to Gamification has been asked. Gamification is to solve problems and acquire user contracts and others using game design methods and mechanisms (for example, "point system" provided for membership services, "privilege by level" etc.). The questions ask was "Is gamification useful for Japanese people to understand Halal?" (See Figure 9).
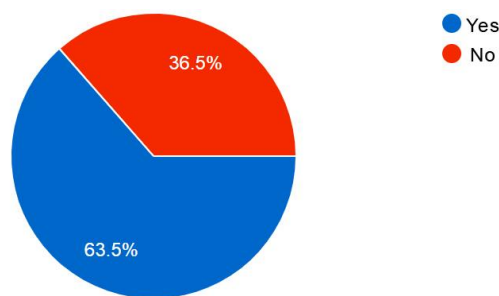
Fig. 9. Is Gamification Useful?

Most of the respondents agreed that Gamification is useful for understanding Halal terms. A total of 63.5% answered 'Yes' and the rest of the respondents answered "No'. It shows that the respondents are aware of the existence of Gamification. If the new Gamification related to Halal terms been introduced, it's probably can help Japanese people to more clearly about Halal terms. That is why in this study, the questions related to Knowledge of Halal and Haram (Non-Halal) and Halal awareness have been asked to the respondents. The result from this study can help to identify which contents of the Halal terms need to be focused in developing new Gamification related to Halal terms.

5. Conclusion

The results of the study can be concluded that the level of understanding of Halal terms among Japanese still low and need to be enhanced. Most of the Japanese people heard about the words Halal but majority of them still do not familiar with the words Haram (Non-Halal) terms. It seems that when asking about Halal, they will associate it with only the food product, but Halal also were associated with other products such as food ingredients, meat product and product from animal. Majority of the respondents aware of the Halal terms which normally their related it to the food without pork or alcohol. They still confuse and not familiar with the concept of Halal slaughtering method, whereby the meats which produce by this method are Halal. Some of them also did not aware that Halal medicine is need medicines are needed by Muslim patients. To understand all this matter regarding Halal terms, majority of Japanese people agree that the new Gamification need to be introduced. In addition, the result in this study helps in identifying which contents of the Halal terms (e.g Halal foods, Halal ingredients and Halal meats) needs to be focused on this new Gamification. The new Gamification for Halal terms with this content has high possibility can helps to increase the level of awareness among Japanese people about Halal terms.

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