

Implementation of Environmental-friendly Food Packaging in Malaysia: Current Reality of Kelantanese Hawkers

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Abstract—Numerous promotions and campaigns have been launched by the Malaysian government and non-government organizations to raise the awareness of environmental-friendly food packaging (EFFP). However, the implementation of EFFP among food sellers or retailers is still low. Therefore, this study aimed to focus on the current reality of the usage of EFFP among Malaysian food hawkers in Kelantan. A total of 100 hawkers from night markets in the state were sampled and interviewed. It was found that only 25% hawkers used EFFP. Data were analyzed by using frequency and crosstab to analyze their views on perceived benefits, perceived risks and resource conditions. It can be concluded from the findings of the study that more efforts should be made in order to raise the awareness level of EFFP so that its use can be spread to food hawkers and other food handlers and retailers.

Keywords—Environmental-friendly Food Packaging (EFFP); Hawkers; Perceived Benefits; Perceived Risks; Resource Conditions

INTRODUCTION

Globally, the EFFP market grew up to RM 720 billion in the year 2018 which was a growth of 63.3% from RM 441 billion in 2011 and is expected to register a compound annual growth rate (CAGR) of 5.7% until the year 2024 (Grand View Research, 2018). As such, EFFP has become one of the indicators for the economic development and sustainability called bioeconomy. Bioeconomy refers to an economic activity that derives from the commercial application of biotechnology [1].

Rapid increase of global consumer awareness of good governance of the environment and strict government regulations on environmental protection have been anticipated to stern industry growth. Eventually, the food and beverage industry has started to show rising trends of uses of materials from renewable resources, recycled packaging and improvement in packaging.

Locally, Malaysia's EFFP industry has also shown a positive move towards the implementation of EFFP as the country is committed to reduce the use of plastic and polystyrene materials. As such, the Malaysian government has embarked on the Malaysia Bioeconomy Transformation Programme (BTP) [2] to channel and maximize the potential of commercialization activities in the bio-based industry in Malaysia. The BTP is poised to contribute RM 48 billion to the gross national income (GNI) by 2020. Meanwhile, Syarikat Suruhanjaya Malaysia (SSM) recorded a total revenue of RM 6.07 billion from green projects in 2016. This program outcome could have a major impact on the growth of green environment sustainability and development. This is because the amount of solid waste has dramatically increased in Malaysia. In 2015, there was an increase of 13.5% of plastic waste. The increase of plastic waste rose to 16.91% in 2016. In addition, food waste contributed the highest amount of composition at 44.5% [National Solid Waste Management Department, year = insert number in the text/ paper and list the source of reference at the end of this paper].

Nevertheless, the current practice of recycling in Malaysia is still low at an aggregate rate of 17.5%. Furthermore, Solid Waste Management Corporation has reported that in Malaysia, the proportion of the highest waste disposal is generated from municipal solid waste at 64%, followed by industrial waste and commercial waste at 25% and 8%, respectively [insert number in the text/ paper and list the source of reference at the end of this paper]. Clearly, the municipal areas produce the highest amount of solid waste in the country. Solid waste from the municipal sources is commonly caused by individuals and small business operators such as street hawkers and night hawkers [3].

These hawkers are who are currently become the community economy movement or circulation. Usually, their business activities operate only at a microscale income that typically ranges between RM1000 and RM3000 per month. At such microscale, the hawkers do not require high level of education or qualification for them to operate the business. Consequently, the level of self-awareness about the importance of using EFFF in their business is very low.

Despite their low level of self-awareness, hawkers play an important role in the implementation of EFFF in the community as their business activities are related with the growth of EFFF domestically. Hence, the government has been actively educating the hawkers to use EFFF in line with the BTP. However, the success rate of the program needs to be improved.

EFFF IMPLEMENTATION ISSUES AMONG HAWKERS

Various issues have been raised by the hawkers with regard to the implementation of EFFF. From the hawkers' point of view, the issues would have an impact on their daily business operations, especially in terms of cost, and therefore become relevant. These issues are briefly discussed in this section.

Firstly, perceived benefits are the primary concern as the implementation of EFFF is questionable. The hawkers argue whether EFFF would be appropriate for or would suit their business [4], [5]. Ease of use and attraction value also become part of the hawkers' concern because they do not want to burden themselves with troublesome packaging compared to the conventional food packaging [6], [7]. It has been observed that in business practices, most of the hawkers are reluctant to implement food packaging that adopts recycling [8]. The hawkers are comfortable with the current practice of using polystyrene and plastic in their daily business operations as it is less hassle and easier to operate.

Secondly, perceived risks remain continuously a much debated issue among the hawkers because any risk would have an impact on their business and this would relate to their monthly income [9]. The risks of high cost [10], durability [11], food spoilage [12], and difficulty in obtaining supply of EFFF [13] continue to remain major concerns for them.

Any impact from these risks would result in less profit the gate or even worse, they might have to close down their business.

Finally, resource conditions play a substantial role as the catalyst that would increase the rate of EFFF implementation among the hawkers. However, the resource conditions could not be prepared and established by the hawkers themselves. The government and relevant non-government institutions should prepare adequate market resource conditions such as ease to get, information, affordability, adequate supply, and market readiness [14] [15]. By having all these conditions, EFFF can arguably be implemented with ease.

METHODOLOGY

This study employed a quantitative approach in which data were collected in structured interview sessions to investigate the current reality of the use of EFFF among food hawkers. The study population comprised Kelantanese hawkers at the night markets in selected areas, namely, Kota Bharu, Pasir Puteh, and Bachok. Prior to data collection, the questionnaire had been checked thoroughly by an expert to ensure content validity. The total number of 100 respondents were determined based on the minimum threshold as suggested by Reinartz, Haenlin, and Henseler [16]. While Hair et al. [17] have also suggested that the number of sample size should range from 5 times to 10 times the number of the item. Hence, the sample size in the present study adequately met the requirement of sample size for analysis because only 15 items were used for frequency analysis. A 10-point Likert scale was employed to determine the scale analysis as also recommended by [18-20]. This scale would extend the sensitivity of the data and avoid odd answer from the respondent. Multistage sampling approach that encompasses stratified and convenience sampling methods were employed. As this study aimed to investigate the current reality of the implementation of EFFF among food hawkers, frequency analysis was deemed to be sufficient to achieve the objective of the study. Data were analyzed using IBM-SPSS version 21.

RESULTS

Frequency analysis of the demographic data indicated that most of the hawkers sampled were female (55%) who outnumbered the male hawkers (45%). This could be clearly seen in Kelantan as female food sellers were dominant among the food hawkers at the night markets. The analysis also showed that more than one third of the food hawkers were 20 to 29 years old (36%) compared to those in the 30-39 (29%) and 40-49 (14%) age groups, respectively. It can be said that most of the food hawkers were young. However, there were also those 50 years old and above who still chose to work as food hawkers at the night market.

It is not surprising to find that 98% of the food hawkers at Kelantan night markets were Malays who dominated this type of business activity as Malay is the major ethnic group in Kelantan. In terms of level of education, nearly three quarters of the food hawkers (70%) had Malaysian Certificate Education (MCE). This was followed by the diploma (13%) and certificate level holders (9%), respectively. Only 8% among the hawkers were educated up to the bachelor's degree and postgraduate degree levels. This had been expected because operating this kind of business would not require high level qualification. Additionally, more than half of the food hawkers (59%) earned not more than RM 3,000 per month. Nevertheless, 11% of them had monthly income range of RM6001 to RM15,000 and above. Such returns would motivate some people to become hawkers at the night market. Hence, this factor may influence the food hawkers to continue to extend their business operations. This was evident from the outcome of the demographic findings which showed that 30% of the food hawkers interviewed had been operating their business for more than five years. Only 15% of them had just recently been operating for a period of less than one year.

However, only 25% of the Kelantanese night market food hawkers interviewed in the present study used EFFF in their business activities. With regard to the resource conditions, 75% of the food hawkers agreed that the information about EFFF had not been well disseminated among them. Furthermore, 68% of them also admitted that the cost of EFFF was more than the capacity of their cost of business operation. Nevertheless, slightly more than half of them (54%) agreed that there was adequate supply of EFFF in the market. Despite this, market readiness and usage priority for EFFF seemed to have mixed responses from the food hawkers because the different about the agree and do not agree do not differ so much, each value only stated at and 51%. Therefore, it can be concluded that the resource conditions were important elements in the use of EFFF among the food hawkers and their use of EFFF was based on information and the cost of their business operation.

Moreover, from the perspective of perceived risks, the following six dimensions were investigated: high cost, durability, halal, food spoilage, pollution, and difficulty to acquire EFFF products. Results showed that even though EFFF was not expensive, the food hawkers gave mixed responses to its implementation as half of them were positive about it while the other half remained negative. However, the findings of previous studies had shown that resource conditions were not related to the operational cost of EFFF that would be costly to compare the cost to buy. In addition, more than half of the food hawkers (60%) also viewed EFFF to be durable which could make EFFF products more sustainable. Majority of the food hawkers (75%) also remarked that there was no issue between the use of EFFF in food products and the halal principle.

This would be crucial for Malaysians especially among the Muslims because their main concern about food and its packaging would be the halal principle. Apart from that, the use of EFFF would have other advantages. For example, it could avoid food spoilage and make food last longer especially for food prepared or packaged in wet condition. This was admitted by many of the food hawkers (68%) as less food spoilage occurred with the use of EFFF for their food products. Majority of them (71%) acknowledged that EFFF would give any further pollution to the environment. Because EFFF was still at the infancy stage of implementation, slightly more than half of the food hawkers (51%) complained that EFFF products would sometimes be hard to acquire in the market. In this regard, the findings of the present study has shown the significant value of the use of EFFF which was perceived to be less risky by the Kelantanese food hawkers at the night market; hence, the implementation of EFFF should be made compulsory by providing a necessary booster.

Finally, another issue of concern among food hawkers is perceived benefits. These benefits comprised six elements, namely, suitability for business usage, ease of use, usefulness for the environment, recyclability, trending, and attractiveness. The findings of the present study showed that almost all of the food hawkers (90%) viewed EFFF as very suitable for business. Moreover, they also perceived that EFFF would be good for the environment (89%) and could be recycled (86%). Additionally, the food hawkers also believed that EFFF would give benefits in terms of ease of use (90%), trending (85%) and attractiveness (83%). Overall, the results of the present study have substantiated the benefits of EFFF for food hawkers. Other hawkers in other states could also benefit from the implementation of EFFF.

CONCLUSION AND DISCUSSION

The current reality of EFFF has provided good grief of used among the hawkers, as from the previous discussion has established the important use of EFFF. However, some major issues would need to be explored before EFFF could be implemented further in order to increase the rate of usage of EFFF among the food hawkers in particular and all types of hawkers in general. To ensure its full implementation and wide use of EFFF among the food hawkers, the practice of EFFF should start early beginning with daily lifestyle and proper education. This should include educating sustainable or green environment among young adults at an early stage. Besides, in response and feedback over the paper remain positive in applying the EFFF. Nevertheless, when it comes to actual practice and implementation, reluctance to changes in behavior would often lead to failure. In other words, the current actual behavior of the food hawkers would remain as an obstacle to EFFF implementation compliance and change in behavior for better packaging practice.

To sum up, various authorities and institutions need to play an active role to ensure that the implementation is stage compliance among the hawkers. The information about EFFP should be disseminated well among the food hawkers so that they would be alert and aware about the changes in food packaging practices in line with the principle of sustainable or green environment. The infrastructure or market supply and recyclability should be made available as they are beyond the capacity of hawkers to establish. Financial assistance or reward system should be appropriately introduced to encourage and ensure that food hawkers would abide by the regulations related to the implementation of EFFP products in food packaging. Eventually, such incentives could become a catalyst to motivate the food hawkers to practice sustainable food packaging for better and greener environment in line with Malaysia's national policy as envisioned by the Bioeconomy Transformation Programme (BTP).

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