

## Technology Acceptance among Fish Cracker's Entrepreneurs in the East Coast Economic Region (ECER) Malaysia: A Preliminary Result

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### Abstract

Previous studies has stated that there are certain fish cracker's entrepreneurs refused to use processing technology at their processing center due to lack of knowledge and limited access to finance. Hence, this preliminary study is conducted to discover the acceptance of technology among 30 fish cracker's entrepreneurs in Tumpat, Kelantan. From the findings, it is confirmed that fish cracker's entrepreneur have an interest to employ processing technology at their processing center and they give positive feedback on fish cracker's processing technology. However, majority of them are not afford to have it for the goodness of their business production. Hence, high cost for fish cracker's processing technology has become the main barrier among fish cracker's entrepreneurs in Tumpat, Kelantan.

**Keywords:** Technology Acceptance, Processing Technology, Fish Cracker's Entrepreneur, Small Scale Food Industry, Kelantan

### Introduction

East Coast Economic Region (ECER) covers four states in Peninsular Malaysia which consists of Kelantan, Terengganu, Pahang and Mersing, Johor. These places are well known with the food industry from fishery based product, it is either *keropok lekor* or fish cracker. Both of this products have its own specialty to most of the people in Malaysia and also from the outside. On the other hand, technology is a tool that is widely used by people around the world. It facilitate the complex tasks become easier and people manage to handle it at any time. Technology evolution has emerged as a beneficial tool to various industries in Malaysia including food processing industries. However, Malaysian entrepreneurs in food processing industry do not fully engaged in technology innovation (Mulyaningrum et al., 2008) and they

were still using the traditional technology practices (Amla and Potty, 2006). Majority of the entrepreneurs still do not employ the invented technology at their processing centre, so that this phenomenon has led to low productivity of fish cracker. Prior to that, it can't meet the consumer demand (Omar et al., 2011). Additionally, in terms of the empirical gap, Toto Sugiharto et. al (2010) mentioned that limited studies on technology application within owners of small-scale enterprise. Hence, this study attempt to discover the acceptance of technology among fish cracker's entrepreneurs in ECER.

### **Entrepreneurship and Technology**

Owning a business requires continuous effort to maintain a business. In a research conducted by Umami Salwa et al. (2015), entrepreneurship has become one of the top agenda in many countries. Entrepreneurs and technology are related to each other in order to increase the production of the company and also to improve the management system of a business. Technology plays an important role as a tool to support the development of entrepreneurship activity. The use of technology is very important in the process of making food product. However, most entrepreneurs especially in rural areas are still using traditional method in order to save budget as it will require high cost by using technology. This phenomenon is due to they are not realized the good side by using technology such as time and energy saving, and also higher production can be achieved. According to Supriya and Rishiraj (2015), technology is a support element for entrepreneurship development because it act as a tool as each steps of the process of entrepreneurship whether it is idea generation, idea selection, or any related aspect to development of enterprise must involves the use of technology.

### **Benefits of Processing Technology in Small-scale Food Industry**

**Increase Income and Productivity:** Technology is very important to produce high quality and quantity of a product. The use of technology also can improve the production process and encourage fish cracker's entrepreneurs to produce various types of fish cracker. Prior to that, it can increase the income of an entrepreneur. Furthermore, Malaysian government has identified processing food industries has high economic potential and also as one of an important engine growth (Mulyaningrum et al., 2008). In addition, technology can lead to efficient process in producing high quality of a product in order to fulfil the needs of consumer respectively (Mulyaningrum et al., 2008).

**Reducing Cost and Energy:** The duration of processing fish cracker can be shorten and the operation costs for certain aspects also can be reduced (Osman, M. N. et al., 2014). The company can save the budget by hiring workers because the implementation of the technology at their processing centre. Additionally, the energy are less consume among the workers and the other costs for fish cracker production can be slashed.

**Safety and Security:** Safety among the workers is a crucial aspect to care about in food handling. Technology can plays as an important roles in order to ensure the safety among workers at fish cracker processing centre. Moreover, implementing technology at food processing centre also could ensure the quality of the product itself. Monaco et al. (2006) also discussed that the information at the product such as nutritional properties, safety, origin, product image, packaging, brand and price are customer's expectation when they decided to buy certain food.

### Materials And Methods

This study employed quantitative research design and the data was obtained from the pre-test result. The developed questionnaire consists of eight parts which all items based on review of literature and past studies. However, for purpose of this paper, the researcher has select five parts namely; demographic profile, technology acceptance in fish cracker's processing, perceived ease of use towards fish cracker's processing technology, perceived usefulness towards fish cracker's processing technology and attitude towards using fish cracker's processing technology. The respondents were given open ended and close ended option for demographic profile part. Meanwhile, for the other four parts, respondents were given Likert scale option range 1 to 5 which represent from strongly disagree to strongly agree. There are 30 fish cracker's entrepreneurs in Tumpat, Kelantan involved for the pre-test. Simple random sampling was applied in this study so that each of the fish cracker's entrepreneurs has an equal chance to be selected as respondent. For the data analysis, SPSS was employed to run the appropriate analysis of this study.

### Results

#### Demographic profile

Table 1 shows the demographic profile of the respondents which consists of gender, age, education level, initial capital, main source of income and experience as fish cracker's entrepreneur. This study involved male and female respondents which represent 46.7% and 53.3% each. There are 33.3% of the respondents age ranged from 41-50 years old and followed by 26.7% of the respondents are 51-60 years old with the mean age (M = 45.1). For the educational background, 56.7% of the respondents completed their MCE/SPM (Malaysian Higher Education Certificate) while only one respondent has a Bachelor degree. On the other hand, there were 63.3% of the respondents start the initial capital with RM30000 and above while the mean score (M = RM32666.70). On top of that, there are 90% of the respondents stated that business in fish cracker's processing is the main source of their income and majority of the respondents (53.3%) experienced this business venture less than 10 years old.

Table 1:  
Socio demographic profile of the respondents

Demographic profile	Frequency	Percentage (%)	Mean
<b>Gender</b>			
Male	14	46.7	
Female	16	53.3	
<b>Age (years)</b>			45.1
≤20	1	3.3	
21-30	3	10.0	
31-40	5	16.7	
41-50	10	33.3	
51-60	8	26.7	
61-70	3	10.0	
<b>Education level</b>			
Primary school	5	16.7	
LCE/SRP/PMR	4	13.3	
MCE/SPM	17	56.7	
STPM/Diploma	3	10.0	

Bachelor degree	1	3.3	
<b>Initial capital (RM)</b>			32667.6
≤ 10000	2	6.7	
10001 – 20000	3	10.0	
20001 – 30000	6	20.0	
≥ 30001	19	63.3	
<b>This business as main source of income</b>			
Yes	27	90	
No	3	10	
<b>Experience as fish cracker's entrepreneur (years)</b>			10.1
≤ 10 years	16	53.3	
11-20	12	40.0	
21-30	2	6.7	

### Technology acceptance in fish cracker's processing

Based on the result obtained from Table 2, there are 60% of the respondents agree with the statement 'I think the cost for using fish cracker processing technology is too high'. Besides, this statement also has the highest mean score (M = 3.87). Meanwhile, majority of the respondents (76.7%) are strongly disagree with statement 'I think there is no interest in using fish cracker processing technology' and this statement also shows the lowest mean score (M = 1.40). On the other hand, most of the respondents are strongly disagree (60.0%) that they don't know about fish cracker processing technology. Furthermore, the respondents also strongly disagree (70.0%) that fish cracker processing technology is very complicated and 66.7% of the respondents also strongly disagree that they have no time to update with the latest technology on fish cracker processing. There are 66.7% of the respondents strongly disagree that technology is not a priority for their business purpose. In addition, the respondents also strongly disagree (70.0%) that they were not exposed to the benefits of fish cracker processing technology.

Table 2: Technology acceptance towards fish cracker's entrepreneur

### Discussion

Based on the results obtained, it is proven that financial access for the entrepreneurs is one of the barrier in fish cracker processing technology. In a study done by Mulyaningrum et al. (2008), financial constraints has become a major problem among small-scale food industries in Malacca. All of the machines are high cost and prior to that, the entrepreneurs do not have

Statement	Percentage					Mean
	1	2	3	4	5	
I do not really know about fish cracker processing technology.	60.0	26.7	13.3	0.0	0.0	1.53
I think fish cracker processing technology is very complicated.	70.0	16.7	13.3	0.0	0.0	1.43
I do not have time to update with the latest fish cracker processing technology.	66.7	26.7	6.7	0.0	0.0	1.40
I think fish cracker processing technology is not a priority in my company.	66.7	23.3	3.3	3.3	3.3	1.53
I think there is no interest in using fish cracker processing technology.	76.7	16.7	3.3	3.3	0.0	1.40
I think the cost for using fish cracker's processing technology is too high.	0.0	13.3	6.7	60.0	20.0	3.87
I was not exposed to the benefits of fish cracker processing technology.	70.0	20.0	6.7	3.3	0.0	1.43

enough capital to afford it.

In addition, fish cracker's entrepreneurs in Tumpat, Kelantan have positive view on fish cracker processing technology which mean they do not refuse any current invention in order to improve the productivity of the fish cracker. Based on study conducted by Toto Sugiharto et. al (2010), respondents believed that technology is useful for their business and willing to learn about it.

### Conclusion

Overall, fish cracker entrepreneurial activity plays an important role towards the economic development of Kelantan state particularly on tourism and food industry. Hence, it can be concluded that technology is a vital role in entrepreneurial development in this modern age.

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