AN EXPLORATORY STUDY ON THE REGULATIONS AND STANDARD ON MALAYSIAN AQUACULTURE INDUSTRY

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ABSTRACT: Aquaculture has a high position in human livelihood and economic development. The role of this sector is not only for economic purpose but for human survival. However, some regulations and procedures imposed by the government may become barriers to entrepreneurs to expand their business activities and sustainability. Therefore, the purpose of this paper is to investigate the effects of legal requirements in promoting development of aquaculture industry in Malaysia. This study deals with various regulatory bodies and entrepreneurs in aquaculture industry. All data are obtained through focus group discussion (FGD). Two main themes have been identified in this qualitative research namely documentation, regulations and standard.

Keywords: Legal Requirements, Aquaculture, Focus Group Discussion, Documentation, Regulations and Standard

1. INTRODUCTION

Historically, the development of Malaysian economy was spurred by agriculture sector. This sector has played a significant role in Malaysian economy due to high return on agriculture commodities such as palm oil and rubber. But, in early 90's Malaysian economy has transformed from agricultural to industrial sector. Malaysian government has made a lot of investments to this sector expecting to generate larger revenue to economic growth. Nonetheless, during financial crisis in 1997, Malaysian industrial sector faces severe defeat. Agriculture sector later acts as a rescuer of the Malaysian economy as its contribution towards GDP increased from RM 17.1 billion in 1995 to RM 18.2 billion in 2000 (8th Malaysia Plan), which later attract government attention to reemphasize this sector. Realizing the importance of agriculture sector as a main player to Malaysian economy, special attention has been given to this sector. Thus, 9th Malaysian Plan, become a key element in transforming Malaysian agricultural sector as Malaysian economic engine. "During the Ninth Plan period, the agriculture sector will be revitalized to become the third engine of growth. The emphasis will be on New Agriculture which will involve large scale commercial farming, the wider application of modern technology, production of high quality and value-added products, unlocking the potential in biotechnology, increased convergence with information and communications technology (ICT), and the participation of entrepreneurial farmers and skilled workforce. The function of agricultural services will also be streamlined to enhance service delivery and efficiency" [1]

Malaysian Aquaculture Industry.

Rapid developments of coastal activities have caused a threat to marine resources and contribute a significant effect to the national food security. Acknowledging this problem, aquaculture industry is seen as the best alternative to the problem. Moreover, the current development of the aquaculture industry in Malaysia reflects a positive trend, and its production levels are able to meet local consumer demand. This industry has shown a steady growth, whereby an aquaculture production will likely increase 8.6 % annually from 2010 to 2020 [2]. Thus admitting the potential of this industry to our economic growth, Malaysian government has

implemented several programs to promote public involvement in the industry, such as Zone Industry Aquaculture High Impact Project and the e-Kasih Program. Undeniably, supports from the government become a major contribution to the success of the entrepreneurs [3]. Several policies and regulations imposed on entrepreneurs might help them to expand their business to a global world as well as their sustainability. For example, federal, state and local governments often exempt small entrepreneurs from certain policies and regulations or apply different regulatory enforcement approaches to small entrepreneurs [4].

In the context of Malaysian aquaculture industry, there are no specific regulations imposed by Malaysian Government on the famers and entrepreneurs. However, they are encouraged to act in accordance with local standards and other regulations relating to the trading activities and food law. Among the standards are Hazard Analysis Critical Control Point (HACCP), Good Manufacturing Practices (GMP), and Good Hygiene Practice (GHP). Nevertheless, entrepreneurs are required to meet the international standards in order to amplify market opportunities in an international level. This will bring up bigger return in investment.

In discussing to this matter, government regulations and polices relating to the business activities is closely related to the issue of trade facilitation. Trade facilitation is defined as reducing the "transaction costs associated with the enforcement, regulation and administration of trade policies" [5,6]. It can be further classified into two categories namely hard and soft. The "hard" dimension is being referred as all physical infrastructures such as road and building whereas "soft" dimension indicates environment of the business, management of customs and other institutional aspects such as documentations and procedures [7,8]. Thus this research will be focusing on the soft dimension on trade facilitation in promoting Malaysian aquaculture industry

2. PROBLEM STATEMENT

As discussed before, aquaculture industry has good potential and promises a good return to entrepreneurs. Although the industry is gradually expands, due to the all efforts and commitment from government to promote this industry it's still out of national target. Moreover was reported that the production of freshwater and brackish water are decreased to

5.5 % and 8.3% in 2014 as compared to previous years (Department of Statistic 2015). Consequently it only contributes to 9.2 % out of Malaysian GDP in 2014(Department of Statistic 2015). This is seems to be contrary with the finding by faiz 2010, claiming that, government's support play significant role in contribution to the success of the entrepreneurs. This has triggered an issue of trade facilitation in Malaysian aquaculture industry specifically pertaining to regulations. Thus, the purpose of this research is to explore the any legal obstacles and their effects to aquaculture's entrepreneurs in Malaysia

3. RESEARCH METHODOLOGY

Qualitative has been adopted in this research by applying Focus group Discussion (FGD) approach. It because, Focus groups discussion (FGD) is a common technique in the social sciences and health research for collecting qualitative data [9,10].(Rabiee, 2004; Dilshad & Latif, 2013). This method is suitable for social science researchers to explore different ideas, perspectives and to obtain important information on a related topic. Interviews involved a selective number of rich and thick respondents from the phenomenon studied and those who are involve directly in Malaysian aquaculture industry. It comprised of stakeholders such as the Customs, the Ministry of International Trade and Industry, the Ministry of Agriculture, Customs (PK 1 and PK Association(PENEKA) Fisheries (PK3) Agricultural Marketing Authority (FAMA) (PK 4 and PK 5) Fisheries Development Authority (LKIM) (PK6, PK 7 and PK 8) Logistic Services Provider Firm (PK 9 and PK 10) and Fisheries Department (PK 11 and PK 12). As to ensure that the questions asked were comprehended by the respondents, the interview was conducted in Malay languagethe mother tongue of the respondents.

The interviews were guided by an interview protocol which was developed earlier. It is essential to form such a protocol as it enables the use of a standard procedure for each of the respondent, while maintaining the flow of conversations.

To accommodate the validity of this study, a principle suggested by Merriam [11] has been localized within this research. Triangulation of data from various sources gained from different stakeholder whom paly role in accelerating legal requirement for aquiculture in Malaysian context. Apart from triangulation from different stakeholder, FGD session using a validated protocols also been verified by the stakeholders during the FGD session. Expert review another key principles in conducting FGD been utilize during the FGD session where all respondents are experts in this area (Merriam, 2009)[11] .Besides that, data also been gathered from stakeholder's documents as part of literature review. In sum, all data been triangulated between and within the techniques [12].

In a nutshell, FGD were conducted in according to qualitative principles such as selection of respondents which are thick and rich informant[13], validity practices according to Merriam (2009)[11] and analysis of data undertake the iterative process [14]. Hence, this research had the verification on all aspects to gain validity of qualitative study.

4. RESULT

Aquaculture industry in Malaysia is rapidly growing with a promising good return. However, nothing comes easy, as aquaculture industry is also facing obstacles. Such obstacles or challenges are coming from the policy and regulations imposed by the government on the entrepreneurs. The interviews revealed whether Malaysian laws facilitate the growth of aquaculture industry.

A number of themes arose from the analysis

1. Documentation

It has been argued that some policies regarding documentation may cause major barrier for logistics and global trade. The impact of trade regulation on the procedures of custom and documents is, exporters and importers face voluminous paperwork, complex formalities, and many potential delays and errors [15]. In discussing that matter, PK 8 gave his view that the government has taken an initiative to avoid such problem.

"There are certain rules imposed on us in terms of fish farming. Previously there was a circulation permit but it was cancelled because it is burdensome. People have to go to Persatuan Nelayan or Lembaga Perikanan Malaysia (LKIM) complexes and fill some forms. We have to get the circulation permits to deliver the fish from the fish farm. With this regulation abolished, it becomes easier for us. Now there's no regulations for fish farming delivery. There's just regulations for catching wild fish in the sea by LKIM and Fishery Complex."

Therefore, according to him, government has abolished distribution permit which was becoming a barrier to the entrepreneurs. Previously, they are required to obtain the permit before delivering the fish to others states. The function of the permit is to monitor the stock. However, this permit is only for a local trading. Entrepreneurs are still required to obtain any relevant permits for import and export activities. PK 8 and other respondents also explained that permits must be obtained from Fisheries Department and must go through the respective agency known as MAQIS for import and export.

PK 8: It is easy to get the import license from LKIM because there's only two to three regulations.

PK 6: Assalamualaikum. The requirements to apply for a license are, we must have SSM, our own shops, sales centre or premise.

They further emphasized that, although there is a requirement for permits and documentations, most of the entrepreneurs are willing to prepare and obtain such permit and document due to the high profit return from import and export activities. Moreover, some of relevant agencies have implemented paperless policy to facilitate entrepreneurs.

PK 9: It is paperless, it's in the system. We don't have to print the large K1 and K2 forms. If we want to do export business, we have to use K2 forms. Nowadays we don't have to print it, it's just through the system. Meaning, from the agent office, we are in the system. Custom and Immigration will just view from the screen. From there they will grant the approval. It means, it's just internally.

2. Regulations and Standards

Although there is no specific regulation impose by the government in aquaculture industry for domestic trading, all entrepreneurs are encouraged to comply with several national standards known as Good Agricultural Practice (GAP) or Good Manufacturing Practice (GMP). Both of these standards are voluntary basis at the initial stage.

These national standards were designed based on the recommendation by Food and Agricultural Organization[16]. PK 11 explained that:

'There are criteria for MyGAP like for cleanliness, storage, food for the fish and etc. regarding fish farming"

PK 11 also explained that those under GAP or GMP programs, will be monitored and assisted by Biosecurity Unit from Department of Fisheries.

"The Biosecurity Unit is only available in State Departments only. Aquaculture Sector will visit the fish farms probably every month".

As regard to the export activities, entrepreneurs need to fulfill all international standards and specific regulations imposed by the government and respective countries.

"For global exports, sometimes they do not require certificates like for hazard. Hazard Management Certificate is strictly required only by the countries in Europe, USA or Japan. Country like Vietnam, does not require the certificate. Because the countries in Europe are in European Union (EU), they are stricter than Hazard. Like I said before, they are three agencies that produce the certificates for export. For LKIM, we will the quality of the fish by taking it to the lab. We will check the freshness, the bacteria and all. Then only we will issue a certificate for export to EU. They are more specific than Hazard.

5. DISCUSSION

Indisputably, the government has played a significant role in promoting the development of aquaculture industry by imposing several regulations and standards as well as documentations that aquaculture entrepreneurs need to comply with. Hence, the relationship between the authorities and entrepreneurs needs to be strengthened as to ensure increasing productivities and sustainability of the industry [3]. This research indicates that Malaysian Government Agencies have taken tremendous initiatives to improve their soft demission of trade facilitation by promoting ICT usage in dealing with business and reducing the number of documents. It is a bad scenario when the entrepreneurs have to deal with the same procedures and documentations [16]. All of these efforts may boost the growth of aquaculture industry. However, the issue of food safety and quality should not be compromised. A food production process should be monitored from the initial stage of cultivation until to the table of consumers. It is because, chemical pollution is a major hazard to agricultural land [17]. This could happen due to improper use of agrochemicals in the field and antibiotics and anti-parasitic in animal agriculture [18]. Moreover, a rapid development of industrial facilities in rural areas, habitually close to agricultural land, will also lead to the contamination of the agricultural area by industrial waste such as heavy metal. Contamination of soil and water with heavy metal and improper agrochemical substance may lead

to the existence of toxicant into agricultural products, and consequently threatening our health. Thus, instead of voluntary basis, aquaculture entrepreneurs need to be bound by national standards such as GAP and GMP through a proper regulation to govern that industry as to safeguard food safety and quality in Malaysia. Additionally, food safety and quality are now becoming a global concern. Complying with international standards will be an added value for aquaculture entrepreneurs to boost their income by penetrating the products to the global market. C. Freund and Bolaky [19] claimed that good regulatory quality could improve the economy through exports and trade. Iwanow and Kirkpatrick (2007) [20] proposed that regulatory quality is the most robust institutional determinant of export performance.

6. CONCLUSION

Malaysian Government recognizes the importance of aquaculture industry as to ensure the sustainable of national food security. Although the general outlook for development of aquaculture in Malaysian is positive, a special concern should also be given to the issue of food safety and quality. The importance of food safety and quality are not only to protect the health risk faced by Malaysians but it may also increase competitiveness in the global world which facilitate to faster, easier access to domestic and foreign markets.

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8. REFERENCES

- [1] Government of Malaysia, 2006, *Ninth Malaysia Plan*, Percetakan Nasional Malaysia Berhad, March 2006
- [2] DOF 2015, retrieved from

http://www.dof.gov.my/index.php/pages/view/2614 on 19 July 2016

- [3] AN, A. F., Idris, K., Uli, J., Shaffril, M., &Azril, H. Aquaculture industry potential and issues: a case from cage culture system entrepreneurs: suggestions for intensification of aquaculture industry. *Journal of Social Sciences*, **6(2)**, 206-211. (2010).
- [4] Dixon, L., Gates, S. M., Kapur, K., Seabury, S. A. and Talley, E. The Impact of Regulation and Litigation on Small Business. (2006) in Working Paper, Kauffman-RAND Center for the Study of Small Business and Regulation Department of Statistic 2015,https://www.statistics.gov.my/index.php?r=colum n/cone&menu_id=dU1SUTBsWDExM1A2YnJZZE95c VhGQT09 on 19 July 2016
- [5] Iwanow, T., & Kirkpatrick, C.. Trade facilitation and manufactured exports: is Africa different? World Development, 37(6), 1039-1050. (2009)
- [6] Portugal-Perez, A., & Wilson, J. S.. Export performance and trade facilitation reform: hard and soft infrastructure. World Development, 40(7), 1295-1307(2012)
- [7] Akinkugbe, OTrade facilitation and Africa's manufactured goods' export: A Panel data analysis. *The Journal of Developing Areas*, **42(2)**, 77-88. (2009).

- [8] Portugal-Perez, A., & Wilson, J. S.. Export performance and trade facilitation reform: hard and soft infrastructure. *World Development*, **40**(7), 1295-1307. (2012)
- [9] Rabiee, F. Focus-group interview and data analysis. *Proceedings of the nutrition society*, **63(04)**, 655-660. (2004).
- [10] Dilshad, R. M., & Latif, M. I. Focus group interview as a tool for qualitative research: An analysis. *Pakistan Journal of Social Sciences*, **33(1)**, 191-198. (2013).
- [11]Merriam, S.M Qualitative research and case study applications in education. Revised and expanded from case study research in eucation. 3rd edition. San Francisco: Jossey-bass Publisher., (2009).
- [12]Yin, R. K. Case study research: Design and methods **4th** ed. *SAGE Publication*. Thousand Oaks. (2009).
- [13]Wolcott, H.F. Writing Up Qualitative Research. SAGE *Publications* (2009).
- [14] Suria Baba. Increasing the Riqor and Efficiency of Research Through the Use of Qualitative Data Analysis Software- NVivo. *International Psychology Research Publication* (Psyber News) Vol 6 No.1 (pg 48-64) ISSN-09760709 (2015)
- [15] Hill, C.. International business. New York: McGraw-Hill(2005)

- [16] Fariduddin, O Challenges ahead in meeting aquaculture production inn Malaysia under the third national agriculture policy (NAP3)(1998–2010). *Jabatan Perikanan Malaysia*. (2008).
- [17] Nordas, H., Pinali, E., &Grosso, M. G. Logistics and time as a trade barrier: *OECD Trade Policy Working Paper*(2006).
- [18] Lam, H. M., Remais, J., Fung, M. C., Xu, L., & Sun, S. S. M Food supply and food safety issues in China. *The Lancet*, 381(9882), 2044-2053. . (2013).
- [19] Freund, C., &Bolaky, B. Trade, regulations, and income. *Journal of development economics*, **87(2)**, 309-321. (2008).
- [20] Iwanow, T., & Kirkpatrick, C. Trade facilitation, regulatory quality and export performance. *Journal of International Development*, **19(6)**, 735-753 (2007).

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