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Marketing Issues in the Cuniculture Industry: The case of rabbit farmers in Hilir Perak, Malaysia

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Abstract

The paper aims to showcase the findings on the marketing issues in the cuniculture industry, focusing on rural rabbit farmers in Hilir Perak, Malaysia. Rabbit meat or broilers has taken a backseat in the domestic market compared to beef, mutton, and chicken. From the qualitative analyses, the marketing issues in the cuniculture industry include a lack of resources by the farmers, limited agency assistance, price, promotion, and awareness of the nutritional value of the broilers. The study's implications showed that broilers must be promoted as part of the local food security environment to fulfill the sustainable development goal (SDG) of zero hunger.

Keywords: Food Security Environment; Marketing Issues; Cuniculture Industry; Socio-economy

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1.0 Introduction

1.1 Background of Study

The post-pandemic lockdown phase has made food security every nation's priority (Din et al., 2022). Catering to the widening gap in the socio-economy, people's nutritional needs and daily consumptions have been tested by the price hikes in controlled items, including chicken (El Bilali, Callenius, Strassner, & Probst, 2019). Food alternatives have to be found to weather the daily cost of living. One such alternative is rabbit meat or broilers to replace chicken meat. Nonetheless, Malaysia's rabbit or cuniculture industry has taken a back seat to other ruminant products. A similar scenario is evidenced in African nations Sanah, Boudjellal, and Becila (2022). As such, the motivation for pursuing this study came about when the rabbit farmers in Chenderong Balai, Hilir Perak, Malaysia, lamented the poor broiler sales resulting in many barn closures. These farmers have spent much of their savings during the lockdowns and expected due revenues after the endemic phase in tandem with the country's economic impetus.

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1.2 Research Objective

The paper aims to showcase the findings on the marketing issues in the cuniculture industry; hence, the study's objective is to investigate the marketing issues in the cuniculture industry. The study focused on rural rabbit farmers in Cenderong Balai, Hilir Perak, Malaysia. It is important to note that the cuniculture industry involves rabbits. Thus, another interchangeable terminology used includes broilers or roasters.

2.0 Literature Review

2.1 About Chenderong Balai, Hilir Perak, Malaysia

The scope and location of the study are in a sub-rural area of Perak where agriculture is the mainstay of the communities in Chenderong Balai (see Fig. 1). Kampung Chenderong Balai is under the sub-district of Labu Kubong. Kampung Chenderong Balai was cleared in the early 1940s for paddy planting. Paddy farmers from the northern state of Kedah made their way to Chenderong Balai as new settlers after being offered two hectares of land, transport, and equipment to build a home and plant rice (Zulqarnain, 2017). The Trans Kerian-Sungai Manik program provided the drainage and irrigation systems for paddy planting (Zulqarnain, 2017). With the current times and after the coronavirus lockdowns, the communities are struggling to rebuild their economy and livelihood. Cuniculture became part of the paddy farmers' income as the rabbits flourished during the two-year lockdowns.

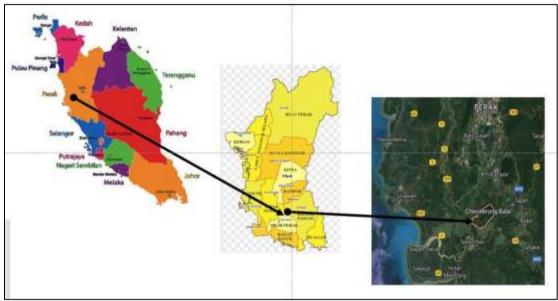


Fig. 1: Map and Location of Chenderong Balik, Hilir Perak, Malaysia (Sources: VectorStock, Wikimedia & Google Map, 2023)

2.2 The Cuniculture Industry

Elsewhere outside Malaysia, the rabbit meat market in Europe anticipated an increase in production volume to 1.8 million tonnes by the end of 2025 with a 2.3% CAGR (Euromeat, 2022). For Asia, China is the primary rabbit meat market accounting for 62% or 925,000 tonnes of the world's total consumption, followed by North Korea at 154,000 tonnes (Euromeat, 2022). Egypt, on the other hand, consumes 57,000 tonnes per year (Euromeat, 2022). This means the cuniculture industry is driven by increasing demand with an upward consumption trend in the next six years (Euromeat, 2022). With such an optimistic forecast, why is Malaysia's cuniculture industry not taking off as much?

On home ground, the cuniculture industry is relatively new in Malaysia. Still, it has gained popularity due to numerous government initiatives and encouragement, as rabbit meat (broiler) production is considered an untapped domestic and foreign market (Talib, 2019). There is an increasing demand for rabbit meat as an alternative to protein sources other than beef, mutton, and chicken, thus making this a worthwhile venture, particularly in jump-starting youth entrepreneurship (TheSunDaily, 2020). Humans have been eating meat for thousands of years, and this trend has always been fueled by the satisfaction of consuming meat and the food's high nutritional value (Aboah and Lees, 2020). According to Szendrő, Szabó-Szentgróti, and Szigeti (2020), rabbit meat satisfies consumers' dietary needs. It is a valuable resource that may help alleviate global food shortages and insecurity issues (WorldBank, 2022). Additionally, this type of meat is preferred as a sustainable source of proteins when developing nations' meat consumption patterns are changing due to population growth, climate change, and other factors (Mutsami & Karl, 2020). The enormous potential and positive traits, such as the rapid growth rate, short gestation period, and high prolificacy comparable to that of broiler chicken, are other qualities (Baruwa, 2014; Daszkiewicz & Gugołek, 2020).

In contrast to many of the larger ruminants, rabbits are thought to be odorless, noiseless, and able to adapt to various ecosystems (Dalle Zotte, 2014; Sowmya, Patil, & Chinnappa, 2019). Furthermore, a rabbit can survive on green forage, leftover food, and agricultural 22

by-products, generating income and limiting competition with humans for similar food (Dalle Zotte, 2014). Additionally, rabbits have the highest feed conversion efficiency of any animal, which is a crucial indicator of environmental sustainability and economic success (Van Heerden & Mentani, 2010).

The cuniculture industry remains a marginal production activity. In rural areas, it still takes the form of individual farms and smallholdings (Akasha, Mondalb, & Adusumillic, 2021). In many developing countries, the rabbit is purposely bred to achieve self-sufficiency in home protein, as the cuniculture industry has significantly contributed to rural economic growth and social development in many countries over the last several decades(Akasha et al., 2021). This is due to its advantageous characteristics, such as flexible investment, ease of start-up and management, conservation of grain and land resources, production of high-quality meat, and creating of jobs for rural residents. Globally, rabbit meat output has steadily increased for nearly 60 years (Euromeat, 2022). Unfortunately, rabbit production, introduced as a replacement to address the protein shortage, has not received adequate attention (Szendrő et al., 2020). Organizational and structural gaps persist across the rabbit meat is the most time-consuming and challenging aspect of rabbit farming (Mutsami & Karl, 2020). Several factors, such as the accessibility of processing facilities, the market demands, the price of transportation, and the number of potential buyers, must be considered when raising rabbits for their meat. Very little is known about how various marketing factors influence the demand for rabbit meat. It is important to note that there have been hardly any studies on marketing rabbit meat.

2.3 The Cuniculture Industry in Indonesia

Along with other countries, Indonesia has recognized the promising potential of the cuniculture industry. It views rabbits as animals with prospects for cultivation as it is high in protein and can be an alternative or substitute for the usual conventional meat consumed in Indonesia. Consequently, measures have been taken to ensure the quality of the cultivation of rabbits, mainly through the issuance of regulations and the requirement to obtain a license for those who wish to operate in the cuniculture industry. Provisions and guidelines regarding cuniculture are explicitly enshrined in Regulation of the Minister of Agriculture of the Republic of Indonesia No. 34/Permentan/OT.140/2/2014 concerning Guidance on Good Rabbit Cultivation (after this, Guidance on Cuniculture) (Permentan, 2014).

The Guidance on Cuniculture begins by highlighting the need to promote cuniculture in Indonesia as it is known to hold the following advantages: 1) rabbits are considered to be fast-growing; 2) rabbits can have more than five babies within one period; 3) short birth intervals; 4) cultivation of rabbits do not require a large area of land; and 5) not much capital is needed to operate the business of cuniculture. It further regulates aspects such as the area and location where the cuniculture takes place, appropriate sizes of the cage, facilities such as cleaning tools, and health maintenance. Businesses in the cuniculture industry are also required to submit a written report every three months to provide data, among other things, the population of rabbits, its production and distribution, the existence of any identified diseases, the number of rabbit deaths, type, and vaccination schedule, and measures taken to maintain the environment therein.

Although cuniculture has been given attention by the government and reflects a growing industry in Indonesia (Astuti, Bahar, & Sudolar, 2020), it is still deemed relatively uncanny for the majority (Kelinci, 2019). Many are still yet exposed to the benefits and prospects of cuniculture. On the other hand, businesses in the cuniculture industry in Indonesia are also challenged by the limited nature of the domestic market (Hakim, Rizki, & Harahap, 2022; Raharjo, 2008). Rabbit meat is not a popular commodity in Indonesia that is easily obtained or marketed (Raharjo, 2008). It remains an unusual choice of meat for Indonesians. This is facilitated by the 'bunny syndrome' as one of the factors influencing Indonesian consumers' preference in not purchasing rabbit meat (Priyanti & Raharjo, 2012a). Thus, although the cuniculture industry has been regulated and promoted by the government (Suroto, Murti, & Karamina, 2022), the challenges above, particularly about the perspective and preference of consumers, remain prevalent in impeding its growth in Indonesia (Priyanti & Raharjo, 2012b).

2.4 The Food Security Environment and Sustainability

Poverty and food insecurity are elevated in the endemic phase (HLPE, 2020). Household finances and food insecurity cut across urban and rural communities (Chang, Chatterjee, & Kim, 2014). Consequently, the nutritional needs of the households were also impacted (Lambon-Quayefio & Owoo, 2021; Tarasuk, 2001). Thus, short-term food production and sustainability are vital to alleviating hunger and food insecurity issues. With that in mind, the cuniculture industry fits the food security strategy as rabbits reproduce fast.

3.0 Methodology

3.1 Research Design

The research design for this project used a qualitative method. Njie and Asimiran (2014) advocated that the qualitative approach through case studies allows for exploring various dimensions of the social world. In addition, the study was grounded in the behavioral theory of entrepreneurship, specifically the economic and sociological theories, as well as the four "Ps" of marketing. In other words, the rabbit farmers are engaging in entrepreneurial behavior in the cuniculture industry as the location of their homes was able to accommodate barns for rearing the rabbits.

3.2 Sampling Technique

With qualitative research design, non-random sampling methods are inevitable in this project; the purposive or judgment sampling technique provided the criteria to identify the correct respondents. This project is also a case study, so as a rule of thumb, one case would suffice, but there can be more cases (Mills & Birks, 2014). Consequently, the case study represented 13 rabbit farmers in Cenderong Balai, Hilir Perak, Malaysia with ten members in the focus group interview.

3.3 Data Collection and Analyses

Primary data collection relied on interviews with the rabbit farmers guided by an open-structured protocol. The first session was a focus group of ten rabbit farmers. After that, individual farmers were re-interviewed to verify the responses given. When all the respondents recorded similar responses, data saturation was attained. Thus there was no need to interview the remaining ten on the list. The interviews were then transcribed and input into the NVivo software to identify the themes around the marketing issues they faced. Data and feedback from other rabbit farmers' social media groups, such as Facebook and WhatsApp, were also included as the respondents were members.

3.4 Justifications of Procedures

The justifications for using qualitative methods were to understand underlying reasons and motivations. This project focused on a specific case, the rabbit farmers in Cenderong Balai, Hilir Perak, Malaysia. The case study was appropriate due to the small number of non-representative cases or samples (Gammelgaard, 2017; Sofaer, 1999). Furthermore, the interviews were more of an informal discussion to put the participants at ease. The presence of the Chieftain and village representative made the discussions more holistic and richer with feedback from village representatives. The data sources were from classic and contemporary descriptions of the underpinnings to investigate the marketing issues plaguing the rabbit farmers. Through multiple qualitative inquiries, rich data on complex phenomena were obtained. Furthermore, the qualitative design was systematic and rigorous, thus reducing bias and error to identify evidence that confirms the research propositions (Edwards, 2020). Lastly, the limitation of this study is the case study method which focused on just the rabbit farmers in one rural area. Widening the scope to other districts and states will yield more complete and comparable results.

4.0 Findings

The findings are divided into two sections; the demographic profiles of the respondents and the marketing issues ranked according to emergence themes.

4.1 The demographic profiles

The profiles of the respondents are shown in Table 1. Of the ten rabbit farmers interviewed, only two were female, indicating that men dominate the cuniculture industry at 80%. The age range among rabbit farmers had 70% who are 40 years and above, and 90% were married. Qualification-wise, 40% of the farmers completed high school, with 30% having a degree or diploma. Half of the respondents are full-time rabbit farmers; the other half breed rabbits as a side income. The barn capacities showed that 80% of the respondents are small-scale rabbit farmers. The following section will detail the findings based on the research objective.

Variable	Frequency	Percentage
Gender:		
Male	8	80
Female	2	20
Age range:		
20-30 years	1	10
31-40 years	2	20
40 and above	7	70
Marital status:		
Married	9	90
Single	1	10
Qualification:		
Undergraduate degree	3	30
Diploma	3	30
High School/SPM	4	40
Farming status:		
Part-time	5	50
Full-time	5	50
Barn capacity:		
1-100 cages	1	10
101-500 cages	7	70
501-1000 cages	2	20

4.2 The marketing issues

The investigation into the marketing issues among rabbit farmers in Cenderong Balik, Hilir Perak, and Malaysia revealed these findings, as shown in Table 2. Although the farmers are part of the state's rabbit farming cooperative, the general public has not been well

promoted on the availability of various products, from broiler meat, carcasses, and a plethora of rabbit-meat menu assortments. The price of rabbit meat is also a significant issue compared to chicken meat which is less expensive and readily available. Furthermore, the restrictions on food production, such as obtaining the "halal" certification, impede rabbit broilers' uptake in the domestic market.

Table 2. The marketing issues in the cuniculture industry at Cenderong Balai, Perak, Malaysia				
lssu	e	Theme 1	Sub Theme	
1.	Customer awareness of the availability of the farmers' rabbit meat supply	Promotion, Place	Product, Strategy	
2.	Rabbit farmers limited networking impedes increasing the supply	Promotion	Networking, Awareness	
3.	Lack of promotion by stakeholders on rabbit meat availability	Promotion	Awareness	
4.	Rabbit farmers' dependence on the cooperative, veterinary department, and agriculture agency to market their products	Political	Internal	
5.	Getting the necessary certification for rabbit meat, particularly the "halal" approval	Political	Bureaucracy	
6.	Packaging and labeling of frozen rabbit meat	Promotion, Product		
7.	Uncertainty in pricing for their rabbit meat regardless of market price	Price		
8.	Rabbit farmers' lack of e-marketing skills	Personal	Skilling	
9.	Increasing feed (pellet) expenses	Production	Operations	
10.	Other infrastructure matters affecting broiler production and marketing	Production	Operations	

5.0 Discussion

The discussion section will focus on two areas; the analysis of findings and the implications of the results.

5.1 Analysis of findings

The thematic analyses from the interview transcripts were ranked according to the most important ones with consensus agreement among the rabbit farmers. Firstly, rabbit meat promotion for greater public acceptance has not been undertaken by the cooperative or other agricultural entities in the area. Village heads, chieftains, and district officers have to assist with the farmers' repeated requests for marketing assistance. By networking with state and federal agencies, these representatives can significantly change the consumers' attitudes toward rabbit meat consumption. Further implications of the findings are expanded in the next section.

5.2 Implications of findings

The implications from the findings are twofold; firstly, the immediate circle of farmers needs to regularly assemble and coordinate the strengths of each farmer's production capability. By adequately recording and tabulating their maximum broiler production within a specific timeframe, the accessibility of rabbit meat to be supplied will be inventoried. Require the assistance and attention of the entities from which the rural rabbit farmers depend on.

On a different note, the profiles of the respondents elicited crucial demographic factors that can be correlated to the success of the cuniculture venture in Cenderong Balai. From the gender breakdown. Only two female farmers are rearing rabbits within their home compound. The convenience of having the barns close by limits other economic costs. Family members, for example, their spouse and children, contribute to the physical labor in infrastructure and barn upkeep. The educational background of the farmers ambiguously contributes to the success of the rabbit rearing project as there are farmers without a degree who were able to expand their business. Hard work, passion, and commitment were the key characteristics of the continuous operation of the barns.

In Table 2, the political theme is the emergent variable related to the marketing issues. The communities' projects' success depended on the networking and influence of other members and affiliations. Getting financial aid and subsidies is essential to the cuniculture community. The slaughtering of the mature rabbit, too, requires someone who is certified. The location of the slaughter or butchering must fulfill the criteria set by the local Veterinary Department. All in all, the qualitative design of the study has resulted in new, emergent issues within the project's scope. Thus further investigations of a mixed-method approach are recommended.

With regards to marketing and sales of broilers or rabbit meat and other by-products including carcasses, the engagement with grocery stores and hypermarkets are advocated with assistance from the appointed government agencies. Ironically, this situation requires immediate need for public-private collaboration for the success of SDG08-Decent Work and Economic Growth (Source, 2023). Also, innovative products from the cuniculture industry justifies the role in knowledge creation while disseminating and catalyzing economic opportunities for the quintuple helix nexus (industry-government-academia-society-environment) (Carayannis, 2021).

6.0 Conclusion & Recommendations

This study is significant in fulfilling the Sustainable Development Goals of No Poverty, Zero Hunger, and Good Health and well-being. In addition, the implication of the study's findings is significant in increasing the socio-economy of rural farmers and ensuring sustainable consumption. Marketing of rabbit-based products has to be championed by the relevant government agencies, particularly in food

production. Thus, further research with a broader scope on similar areas is suggested. Lastly, monetizing the rabbit meat niche can economically benefit the community's well-being at Cenderong Balai, Hilir Perak, and other cuniculture industry players in Malaysia.

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Paper Contribution to Related Field of Study

The field of study that this paper contributes to are the food security environment, the cuniculture industry, and issues in marketing that extend the theory of management and marketing.

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