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CORRELATION BETWEEN SOCIO-ECONOMIC CHARACTERISTICS AND ENTREPRENEURS'S MOTIVATION OF DAIRY GOAT FARMERS WITH DAIRY GOAT BUSINESS SUSTAINABILITY (Case on Dairy Goat Farmer at Bogor, Bekasi, South Tangerang, and Depok Cities)

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Abstract
This research aimed to study (1) the socio-economic characteristics of dairy goat farmers, (2) the entrepreneur's motivation of dairy goat farmers, (3) dairy goat sustainability business, (4) dairy goat farmers' strategy for business sustainability, and (5) correlation between socio-economic characteristic and entrepreneurs' motivation farmer with dairy goat business sustainability. The research was conducted at Bogor, Depok, Bekasi, and South Tangerang Cities in April 2019, using mixed methods, including quantitative and qualitative approaches. The quantitative approach used a questionnaire created as an ordinal scale, and then the Spearman rank correlation w carried out. At the same time, the qualitative approach used phenomenological analysis related to the strategies of raising, marketing, and maintaining the sustainability of the dairy goat business. Respondents of this research were 15 dairy goat farmers, which are variants from small-scale, medium and big-scale businesses. The result of this research showed that (1) the characteristic socio-economic of dairy goat farmers have been supported to business sustainability, especially from education, age, farming experiences, and production facilities; (2) entrepreneur's motivation was a medium category because dairy goat farmer has business logic it means if it is no longer profitable then switch to mixed business (3) dairy goat sustainability business was a medium category, the level of business sustainability is not optimal (medium category) because this business has a risk of difficulty in marketing its milk products; (4) the farmer's strategy in maintaining this business are: making promotion and increase resellers to increase consumers; (5) there was a positive correlation between socio-economic with sustainability business (rs 0.542) and between entrepreneur motivation with dairy goat sustainability business (rs = 0.572).
Keywords: Socio-economic characteristic, entrepreneur motivation, sustainability business, dairy goat farmer

HUBUNGAN ANTARA KARAKTERISTIK SOSIAL EKONOMI DAN MOTIVASI WIRAUSAHA PETERNAK KAMBING PERAH TERHADAP KEBERLANJUTAN USAHA KAMBING PERAH (Kasus Peternak Kambing Perah di Kota Bogor, Bekasi, Tangsel, dan Depok)

Abstrak
Penelitian ini bertujuan untuk mempelajari: (1) karakteristik sosial ekonomi peternak kambing perah, (2) motivasi berwirausaha peternak kambing perah, (3) keberlangsungan usaha kambing perah, (4) strategi keberlangsungan usaha peternak kambing perah, dan (5) hubungan antara karakteristik sosial ekonomi dan motivasi berwirausaha peternak dengan keberlangsungan usaha kambing perah. Penelitian dilakukan di Kota Bogor, Depok, Bekasi, dan Tangsel pada bulan April 2019, dengan menggunakan metode campuran (*mixed method*) yang meliputi pendekatan kuantitatif dan kualitatif. Pendekatan kuantitatif menggunakan kuesioner yang dibuat dalam skala ordinal, kemudian dilakukan korelasi *rank* Spearman. Sedangkan pendekatan kualitatif menggunakan analisis fenomenologis terkait strategi pemeliharaan, pemasaran, dan pemeliharaan keberlangsungan usaha kambing perah. Responden penelitian ini berjumlah 15 orang peternak kambing perah yang merupakan varian dari usaha skala kecil, menengah dan besar. Hasil penelitian menunjukkan bahwa: (1) karakteristik sosial ekonomi peternak kambing perah mendukung keberlangsungan usaha terutama dari pendidikan, umur, pengalaman beternak, dan sarana produksi; (2) Motivasi berwirausaha termasuk kategori sedang karena peternak kambing perah mempunyai logika bisnis; artinya, apabila usaha sudah tidak menguntungkan, maka peternak akan beralih ke usaha campuran (3) keberlanjutan usaha kambing perah termasuk kategori sedang karena usaha ini mempunyai risiko kesulitan dalam memasarkan produk susunya; (4) strategi peternak dalam mempertahankan usaha ini adalah: melakukan promosi dan memperbanyak *reseller* untuk meningkatkan konsumen; dan (5) terdapat hubungan positif antara sosial ekonomi dengan keberlanjutan usaha (rs 0,542) dan antara motivasi berwirausaha dengan keberlanjutan usaha kambing perah (rs = 0,572).
Kata Kunci: Karakteristik sosial ekonomi, motivasi wirausaha, keberlanjutan usaha, peternak kambing perah

INTRODUCTION

Dairy goats farming can provide income for rural and urban communities through meat and milk production. Thus, efforts to address poverty by introducing dairy goat herds require a comprehensive approach by addressing the vehicles faced by such goats' efforts (Siddiky, 2017). In designing and enhancing dairy goat projects, such as the project applied in Kenya, it is necessary to select program recipients in

various aspects to achieve the program's objectives, namely improving the welfare of farmers (Kikwatha et al., 2020). Each type of goat has sufficient diversity of production performance as a milk and meat producer (Maesya & Rusdiana, 2018). The growth of dairy goat farms aims to contribute to the ability to make more milk and products created with goat's milk internally (Mellon et al., 2020).

The development of dairy goat farms is intended to provide an opportunity to increase domestic milk production and derivative products from goat's milk (Cyrilla et al., 2016). Goat milk has various effects on human health, considering the total solid, fat, protein, lactose, mineral, and vitamin contents (Turkmen, 2017). Goat milk lipids, in addition to positively affecting dairy products' physical and sensory characteristics, provide better digestibility with small fat globule size and high short- and medium-chain fatty acid content (ALKaisy et al., 2023).

Consumer interest in goat's milk today is mainly because goat milk is believed to have many benefits, especially in terms of health (Cyrilla et al., 2016). Dairy goat farmers process goat's milk into various products to increase its market value. These products include processed foods such as ice cream, yogurt, and candy, as well as beauty products, such as masks or soap in Indonesia (Choirunisa et al., 2021). According to research in the Andana and Mersin Cities, almost 50% of 518 customers in Turkey consume goat milk and its products in different forms (Güney, 2019). The most influential factor in the case of purchasing goat milk and its products is availability. In contrast, product-related factors (odor, taste, color processing method, and shelf-life) are secondary factors affecting product purchase. Marketing applications (brand, shelf-life, packaging, and promotional activities) have fewer effects. However, health issues can be used to promote these products (Güney, 2019).

Maslow's Hierarchy of Needs suggests five basic needs that act as motivating forces in a person's life. At the bottom of the pyramid are the most basic needs, beginning with physiological needs, such as hunger, followed by safety needs, including the psychological needs of belongingness, love, and esteem (Güss et al., 2017). McClleand's concept of rich achievement needs emphasizes the pursuit of business opportunities and willingness to face risk.

In this research, the purpose of big-scale dairy goat farmers is to fulfill their living needs and take advantage of business opportunities. Until now, there has been no report on the socioeconomic characteristics and entrepreneurs's motivation of dairy goat farmers and their correlation with business sustainability. This paper seeks to address this gap in knowledge.

MATERIALS AND METHODS

This study used mixed methods (qualitative and quantitative approaches). The qualitative approach used case studies in a region or specific studies discussed in depth. This study's stage-by-stage qualitative approach included data collection, reduction, categorization, and conclusion (Rijali, 2018). In this research, a qualitative approach was mainly used for analyzing the strategy of dairy goat farmers as informants, which explains to each informant how their plan is to maintain their business sustainability.

Respondents in this research were taken by snowball random sampling because there was no data from Indonesian Government's Department of Animal Husbandry in this area. The number of respondents was 15 people, consisting of 11 farmers from the regency and city of Bogor, two from South Tangerang City, one from Depok, and one from Bekasi**.** The quantitative approach used an ordinal scale for the questionnaire to answer questions about the respondents' socio-economic characteristics, motivation, and sustainability of the business; the score would be classified into three options: high, medium, and low.

Social characteristics were examined from age, education, and farming experience, while economic characteristics were examined from business patterns, scale of goat ownership, and ownership of dairy goat production facilities. The category class of motivation was obtained from the formula below:

Number of questions x max marks = 14 x 3 = 42
Number of questions x min value = 14 x 1 = 14 -
The result divided by 3 = 28/ 3 = 9. 33 (rounded : 9)

Table 1. Interval Score for Motivation Category

No	Motivation level of dairy goat farmer	Interval score
1	High	32 – 42
2	Medium	23 – 31
3	Low	14 – 22

Category class of sustainability business :
Upper class limit (Number of questions x max marks) : 18 x 3 = 54
Lower class limit (Number of questions x min value) : 18 x 1 = 18 –
Result divided by 3 = 36 : 3 = 12, therefore :

Table 2. Interval Score For Sustainability Category

No	The sustainability level of dairy goat farming	Interval score
1	High	42 – 54
2	Medium	30 – 41
3	Low	18 – 29

RESULTS AND DISCUSSION

1. Socio-Economic Characteristics of Dairy Goat Farmers

According to Haryadi et al. (2016), the social characteristics of dairy goat farmer informants could be seen from several aspects: age, formal education level, and farming experience, while economic factors were seen from the scale of dairy goat ownership and availability of livestock production facilities. The socio-economic characteristics of dairy goat farmers in Bogor, Depok, South Tangerang, and Bekasi regions is presented in Table 3.

Tabel 3. Respondent Identity of Diary Goat Farmers in Research Area

No.	Respondents Identity	Total (person)	Percentage (%)
1.	Age (Years)		
	29 – 40	9	60.00
	41 – 50	2	13.33
	51 – 60	4	26.67
2.	Education		
	Senior High School	3	20.00
	Diploma	3	20.00
	Post Graduate	7	46.67
	Magister	1	6.67
	Doctoral	1	6.67
3.	Farming Experience (years)		
	1 – 7	5	33.33
	8 – 14	5	33.33
	15 - 20	5	33.33
4.	Patterns of Business		
	Core Business	5	33.33
	Mixed Farming	5	33.33
	Small Holder/Part of agriculture business	5	33.33
5.	Dairy Goat Productive Owners		
	0 – 25 head	3	20.00
	26 – 50 head	3	20.00
	> 50 head	9	60.00
6.	Facilities of Production		
	Complete	12	80.00
	Less Complete	3	20.00
	Not Complete	0	0.00

The age distribution of dairy goat farmers included the productive age range (29-60 years), which is relevant to Yuniati dan Kamso (2021). Most of them were young adults, indicating that these farmers possessed both the physical strength and mindset to develop their business. The majority are having at least high school education; only one farmer reaching doctoral degrees, and most were postgraduate. The farmer's breeding experience varies from 1 to 20 years.

On business patterns, there was an equal percentage of respondents, each 33.33%, for dairy goats as a core business, mixed with other livestock (dairy cows, beef cattle, and sheep), and part of the agricultural system (integration between dairy goat and food crops). This implies that the dairy goat business had yet to fully provide optimal benefits. One identified obstacle of the dairy goat business was the lack of public interest in goat milk due to its distinctive prongs odor, relatively high price, and occasional issue with the milk quality. This low quality milk was possibility because the use of Sapera goats or Saanen goats, rather than Ettawa crossbreed goats. According to the statement by Cyrilla, et al. (2016), goat milk quality is the primary internal factor affecting dairy farms.

Diversity in the ownership scale of dairy goats, ranging from small to medium to large, was influenced by the regular demand for goat milk, which was the biggest obstacle in maintaining business continuity. Comsequently, farmers adopted a strategy of raising other livestock, such as cows or sheep, to meet daily meat needs or requests during Eid al-Adha. This approach allows farmers to diversify their income sources and optimalize some costs. Economic characteristics were also reflected in the availability of livestock production facilities, including production houses. The results showed that 80% of respondents had complete livestock production facilities (cages, production houses, transportation), while 20% needed more complete livestock production facilities.

Characteristics of farmer socio-economic respondents can be seen in Table 4. Based on Table 2, some respondents (60%) had moderate socio-economic characteristics. This means that from the social aspects (age, education, stock breeding experience) and economic aspects (business patterns, availability of production facilities, and livestock scale), some respondents had not been able to fully support the ability to continue the dairy goat business which is determined by the level of goat milk sales, which, in turn, will affect the efficiency of their business.

2. Entrepreneur's Motivation of Dairy Goat Farmers

Socio-psychological issues, such as motivation, are essential factors influencing human behavior and performance. Socio-psychological farmer features, such as motivations and perceptions that could influence adoption, have received less attention in the adoption literature (Mellon-Bedi et al., 2020). In this research, the entrepreneurial motivation of dairy goat farmers is examined from (1) having a desire to succeed and (2) having work morale, according to the concept of MC Clelland (Güss et al., 2017). The entrepreneurial motivation of dairy goat farmers can be seen in Table 5 and will be described according to these indicators:

Table 4. Socio-Economic Characteristics of Dairy Goat Farmer

No.	Description	Category						Total	
		High		Medium		Low			
		Person	%	Person	%	Person	%	Person	%
1	Social Characteristic	2	13.33	11	73.33	2	13.33	15	100.00
2	Economic Characteristic	6	40.00	8	53.33	1	6.67	15	100.00
	Socio-economic Characteristic	4	6.67	9	60.00	2	13.33	15	100.00

Table 5. Entrepreneur's Motivation of Diary Goat Farmers

	Description	High		Medium		Low	
		Person	%	Person	%	Person	%
1.	Having the desire to succeed	6	40.00	4	26.66	5	33.33
2.	Having work spirit	7	56.67	6	40.00	2	13.33
3.	Entrepreneur Motivation	6	40.00	8	53.33	1	6.67

Table 6. Having the Desire to Succeed

No.	Description	Category (%)		
		High	Medium	Low
1	Take into account success and carefully see opportunities	60,00	33,33	6,67
2	Increased knowledge and skills	46,67	53, 33	0,00
3	Earned Feedback	33,33	66,67	0,00
	Having Desire to Success	42,86	21,43	35,57

The entrepreneur's motivation of respondents (53.33%) was in the moderate category. This was supported by his desire to succeed between 40.00 % in the high category and 33.33% in the low category and having the spirit to work more in the high (56.67 %) than in medium categories 40.00 %. This could be understood because the dairy goat business faced considerable challenges in its milk marketing.

Entrepreneurs' motivation of dairy goat farmers in Bogor–Depok–Tangerang–Bekasi Cities were the same as that of Merapi Volcano dairy, that high category levels for all of the components (economic motives, social motives, and environmental motives of sustainable farming) indicated that there were the same behavioral types based on the farmers' motivation for being in sustainable dairy goat farming at the slope area of the Merapi volcano (Haryadi et al., 2016).

Various efforts were required to achieve success in the dairy goat businesses, such as (1) forecasting success and carefully considering opportunities, (2) expanding knowledge and abilities, and (3) attempting to collect feedback from each evaluation activity on its business. To achieve success in the dairy goat business, various efforts were needed, such as (1) calculating success and carefully looking at opportunities, (2) improving knowledge and skills, and (3) efforts to obtain feedback from each evaluation activity on its business. This concept fits McClelland's theory that in Human Motivation theory, he distinguishes three needs (power, affiliation, and achievement) and argues that human motivation is a response to changes in affective states that specific situation will cause a change in the affective state through the non-specific response of the autonomic nervous system (Güss et al., 2017). The sub-variable of respondents wanting to succeed can be seen in Table 6.

Based on Table 6, only 42.86% of the respondent farmers exhibit a high desire to succeed. This was based on the need for optimal efforts to increase knowledge and skills in dairy goat agribusiness and obtain feedback from employees and consumers. Dairy goat's farmers need to improve their knowledge, insight, skills in handling and processing goat's milk, and sound and attractive packaging to expand marketing, especially for beginner consumers.

Achieving success in the livestock business necessitates farmers to record their milk production, reproduction, and finance. Keeping records facilitates comprehensive business evaluations, from both technical and economic aspects. Achieving technical efficiency, such as efficient feed use, optimal milk production, and marriage timeliness, would affect economic efficiency. However, some farmers need more human resources to keep complete records.

Most of the respondents (64.29%) record their milk production and reproductive data, while 35.71% of the farmers did not maintain such records. Likewise, in financial record-keeping, the majority (71.43%) of respondents

did recording, but the extent of details varies. Some farmers recorded record revenues and expenditures as a whole, while others did not. The farmers also do culling (rejecting) and selling during Eid al-Adha, as the selling price is relatively higher. After Eid al-Adha, the goat population is usually reduced because of the increased sales. The addition of livestock ownership was obtained from rearing, which was then maintained and bred again.

Motivational factors significantly influence farmer adoption decisions regarding sustainable intensification practices. Consumer preferences lean towards fresh or frozen goat milk, with minimal processing such as fermentation and pasteurization. This is driven by the therapeutic or recovery purposes associated with goat milk consumption after illness. However, some farmers provide goat milk preparations such as yogurt, kefir, or pasteurized milk as consumers desire good quality goat milk. These motivational factors should be systematically considered alongside socio-economic farm features and external drivers to inform on-farm innovation processes and supporting policies (Mellon-Bedi et al., 2020). The factors affecting barriers to consuming goat milk and milk products, and according to the results, the most effective barriers to consuming these products were price, lack of habit, and availability problems (Güney, 2019).

Work Enthusiasm

The farmers' enthusiasm to work is essential in sustaining the dairy goat business. Farmers' enthusiasm ranged between the high and medium categories. A small percentage (33.3%) of respondents raised dairy goats as their primary job, so livestock activities are the main task. This involvement allows farmers to exercise control in daily livestock and marketing activities. Meanwhile, farmers who made the dairy goat business as a side job often entrusted almost all of his livestock activities to a production manager and other workers. These farmers generally make the dairy goat livestock business a hobby or take advantage of business opportunities that they consider promising. This aligns with the results of Cyrilla's (2016) study. Table 7 shows that the working spirit among dairy goat farmers is balanced between the high and medium categories. This balance is reflected in their attitudes, demonstrating resilience and self-confidence in the high category, and a more moderate level of optimism in the medium category.

Farmers in this study faces limitations in expanding their marketing because of the perishable nature of their product, so they developed their markets only in the more significant Jakarta areas. The frozen goat's milk has a limited shelf life of around 6 hours, even when packed in styrofoam. After 6 hours, the milk melts, and it raises concerns about the milk's condition being damaged. This observation was according to the statement of Nababan et al. (2014), that reductase time shows a very marked decrease ($P<0.01$) starting from the 6^{th} hour to the 8^{th} hour storage, so it was concluded that fresh milk has resistance at room temperature for four hours.

To maintain their business, the farmers tried to convince their customers about the benefits of goat's milk by distributng brochures and making banners on their farms. Consumers who experienced the benefits of goat's milk tended to become regular consumers. This approach resonates with Cyrilla et al. (2016) emphasis on the importance of farmers having comprehensive knowledge about customer needs, company resources, product pricing, production capacity, marketing and supplier networks, competitor activities, and potential opportunities.

Tabel 7. Having Enthusiasm to Work

No	Description	Category (%)		
		High	Medium	Low
1	United with duties and work	33,33	60,00	6,67
2	Dare to take risks	6,67	60,00	33,33
3	Not easy to surrender	46,66	46,66	6,67
4	Self-confidence	46,66	46,66	6,67
5	Having working spirit	42,28	42,28	14,28

3. Dairy Goat Business Sustainability

Table 8. Sustainability of Dairy Goat Business

No	Description	Category (%)		
		High	Medium	Low
1	Sustainability business from the aspect of social capital	33.33	56.67	13.33
2	Sustainability business from environment capital	33.37	66.67	0.00
3	Sustainability business from economic capital	33.33	66.67	0.00
4	Sustainability business from human resources	53.33	46.67	0.00
	Sustainability of Dairy Goat Business	33.33	66.67	0.00

Sustainability is a process of change that ensure the utilization of resources, investment options, technological advancement, and institutional capacity are all aligned to achieve current and future needs (Kikwatha et al., 2020). Sustainable Livelihoods (SL) framework is closely associated with the work from Robert Chambers. The foundational framework was publicated in a 1992 working paper he co-authored with Gordan Conway titled: ‘‘Sustainable Rural Livelihoods: Practical Concepts for the 21st Century”, published by the Institute of Development Studies. This working paper drew on the earlier work of an advisory panel to the World Commission on Environment and Development (WCED) and the resulting Brundtl report of Our Common Future (Natarajan et al., 2022). Scoones (1998) on Natarajan et al. (2022); Siddiky (2020) also set out an ‘extended’ livelihoods approach in a 1998 IDS Working Paper, revisited in his book (2015) Sustainable Livelihoods and Rural Development.

In this study, business sustainability refers to Scoones’s five elements: natural wealth, human resources (human capital), economic/financial capital, physical capital, and social capital. However, Chamber and Conway focus more on the social aspect (Natarajan et al., 2022). This comprehensive approach involves analyzing both formal and informal organizational and institutional factors.

Based on Table 8, the sustainability of the dairy goat business was in the moderate category (66.67%), while those in the high category were only 33.33%. The sustainability of the dairy goat business was the key to its success. Despite many challenges regarding product uniqueness, consumer preferences, and high selling prices, dairy goat farming remains a promising business for farmers. The study by Cyrilla et al. (2016) showed that the strategic position of dairy goat farms in Bogor Regency was an aggressive strategy in the SPACE matrix. Despite facing various threats, dairy goat farms in Bogor Regency have resource advantages. The Grand Strategy Matrix analysis suggests that dairy goats are in a perfect position to utilize multiple internal forces to benefit from external opportunities, overcome internal weaknesses, and avoid external threats. The best strategy likely to be chosen for dairy goat farms was market penetration and product development (Siddiky, 2017).

Aspects of Social Capital

According to Scoones (Natarajan et al., 2022), social capital consists of social resources, including networks, social demands, social relations, affiliations, and associations. Some farmers opt not to cooperate with the relevant agencies as the service authorities often lack understanding about their business. In addition, farmers operating as individual or limited companies by business trade or limited companies, rather than as part of groups, tend to be more independent but needs assistance from the relevant agency. More intense collaboration is observed among farmers with agents or retailers specialized in goat milk marketing. On the other hand, the unorganized trade of dairy goats, in the hands of intermediaries, traders, and butchers, does not favor goat farmers.

Aspect of Environment Capital

Ideally, dairy goats would develop well if the environmental conditions (temperature, humidity, and altitude) are suitable. Environmental sustainability also includes the availability of feed. Likewise, livestock cannot live well in excessively hot areas. This statement is consistent with Conway and Scooness, who defines natural resource-based

sustainability as the ability of a system to maintain productivity when subjected to external disturbances (Natarajan et al., 2022).

Farmers in the Bogor area predominantly operate in relatively calm mountainous regions, except those in the moderately hot Ciampea area. The large number of dairy goat farmers in the Bogor region indicates compatibility with the region's carrying capacity and proximity to the marketing place, making it a strategic region for goat milk production. Dairy goat farms in Bekasi, Depok, and South Tangerang districts also grow well because they are primarily located in areas with lots of vegetations.

Economic and Technology Capital

Farmers typically own economic capital to support goat milk production process, owning production houses that serve as shelters and packaging products equipped with freezers. They also have vehicles for transporting goat's milk. Some farm facilities have automatic drinking places and chopper engines with varying cleanliness and materials. Farmers with low resouces use simple equipment and materials from wood and bamboo to mild steel for their farm construction and facilities.

The economic aspect shows that the dairy goat farmers in Semarang, Indonesia, needs more income to develop their business; the cause factors included low production, high milk prices in the market, and low interest from the people. In New Zealand, dairy goat farmers earn approximately $416/head, with milk production of 37/kg/head or 109 liters for 192 days (Choirunisa et al., 2021).

Some respondents (66.67%) have yet to apply modern technology/equipment. While some dairy goats farmers source inputs/production facilities locally without facing difficulties in the production process, some farmers use date palm waste as concentrate to enchance the goat's milk taste. The farmers attract consumers' attention by making banners and leaflets about the efficacy of goat's milk. Conversely, consumers in the Americas are increasingly aware of the nutritional merits of goat milk. Goat milk is an increasingly important dairy product worldwide, with total production increasing from 12 million tonnes in 1993 to nearly 19 million tonnes in 2017 (Lu & Miller, 2019).

Human Capital (Human Development)

Human capital is assessed from the capacity of farmers and their employees. Dairy goat farmers were directly involved in learning various aspects of production, reproduction, feeding, and post-harvest management. Farmers with other core businesses entrust their employees to master these responsibilities based on their job descriptions. This aligns with the study by Cyrilla et al. (2016), which found that human capital (the ability of farmers and employees) influenced the quantity and quality of goat milk from a livestock business.

Farmers only freeze goat milk in freezers to maintain its quality and efficacy, and reduce goat odor by minimizing milk contamination or improving milking practices. Likewise, consumers only warm up frozen milk packed in plastic in hot water to maintain its quality. Goat milk products for medicinal purposes are packaged as pillow milk, while pasteurized milk or milk processed into yogurt or kefir is packaged in 300 ml bottles with clear labeling (including information of the volume, trademark, ingredients, how to serve, and the benefits of goat's milk). Goat's milk product marketing is carried out online (Whats App, website) and offline sales occur on a production house scale. This method allows milk sales not only in areas near producers but also in other regions, showcasing the modernization of communication in the market expansion of goat milk business.

4. Strategy for Dairy Goat Business Development

Intensive and semi-intensive farming systems require high investment to support production in a controlled environment. Integrating nutritional, reproductive, and flock health management was the key to an efficient production system. Genetically improved breeds were dreared using continuous feed cycles with high energy efficiency adequate for the production phase (Simões et al., 2021). Innovation and technological adoption in the dairy goat business, including in local goats, aims to achieve high production to contribute to the rural economy. Pulina et al. (2018) stated that in other goat milk-producing countries within the European Union, such as France, Greece, Italy, and Spain, farmers conduct modern commercial milk production processes,

converting milk into cheese (90%) and yogurt, despite simple dairy goat breeding practices.

Consumers of goat's milk often have certain health concerns, and will stop consumption when these problems have been solved. Product characteristics like this require that producer farmers and goat milk retailers to effectively promote the superiority of goat milk and cooperate with many retailers. Marketing issues are crucial, as 66.67% of goat milk producers made banners or signs to promote their farm's name, the types of products sold, and the advantages of their goat milk products. This is relevant to Cyrilla et al. (2016), who emphasize that the primary internal factors for the development of dairy goat farms are the quality of goat's milk and the farmers' characteristics, such as creativity, innovation, and entrepreneurial spirit.

Customers satisfaction was the primary external factor, presenting as an opportunity for dairy goat farms. However, a significant threat lies in the continuity of the availability of young stocks from suppliers, as there is no guarantee of regular support. Dairy goat farms tend to have incredible strengths rather than weaknesses and pose more significant threats than opportunities. Despite facing various threats, dairy goat farms had resource advantages. The best strategies for excellent farm performance are market penetration and product development. It aligns with the opinion of Choirunisa et al. (2021) that the right strategy to be adopted is a market penetration strategy, including increasing the number of workers, spending on advertising, offering products and promoting extensively and product development strategies by increasing product restoration and modifications and services. The strategies of dairy goat farmers can be seen in Table 9.

Table 9. The Strategy of Dairy Goats Farmers to Maintain Business Sustainability

No	Name of Farmer / Farm	Location	Employed strategy
1.	Maulana	Cibinong Bogor	Improving dairy goat breeding, feeding, business management, improving milk quality, selling milk offline and online
2.	Sauki Masal/Codero Farm	Taman Sari Bogor	Selling goat milk offline and online, selling goats, and cooperating with the cosmetics industry based on goat milk.
3.	Sirojudin / UD Barokah	Cijeruk Bogor	Selling goat milk preparations: pasteurization, yogurt and selling goats offline and oline. Use leftover dates for animal feed to improve the taste of milk.
4.	Erwanto	Ciawi Bogor	Carried out feed repairs for dairy goats and sold frozen goat milk; there are discounts for large batch purchases.
5.	Darmo (GDU Goat Milk)	Ciawi Bogor	Sell goat milk and goat livestock offline online and put up a big banner about the properties of goat milk.
6.	Amrul (Mitra Tani Farm)	Ciampea (Bogor)	Sell goat milk, goat and sheep, cattle, and providing daycare for sheep/ goats.
7.	Awal	Ciawi Bogor	Sell goat milk and dairy goats online and offline
8.	Surya	Cibinong Bogor	Sell pasteurized goat milk and goat livestock offline and online.
9.	Jayadi (Makmur Farm)	Ciampea Bogor	Sell goat milk and goat livestock offline and online.
10.	Nia (Toko UmmiImkram)	Gunung Sindur, Bogor	It sells pasteurized goat milk and livestock, has specialized outlets for it and its derivatives, and sells online.
11.	Farm Katulampa	Bogor City	Sell pasteurized goat milk and goat livestock online and offline
12.	Pepohonan 99	Depok	Sell pasteurized goat milk, yogurt, and goat cattle offline and online combined with tourist attractions and cafes.
13.	HALMAIZ	Bekasi	Sell pasteurized goat milk in various flavors and packaging and sell goat livestock offline and online.

14.	Susu Kambing Talita	South Tangerang	Sell pasteurized goat milk in various packaging and goat livestock, offline and online.
15.	Al Amanah Farm	South Tangerang	Sell pasteurized goat milk and goat by online and offline, combined with nature schools.

Correlation Between Socio-Economic and Psychological Characteristics of Dairy Goat Business Sustainability

The relationship between farmer socio-economic characteristics and dairy goat business sustainability has an rs value of 0.542, while the relationship between entrepreneur's motivation with business sustainability is refected in the rs value of 0.572. This indicates a relationship between the socio-economic characteristics of the farmer and sustainability of the dairy goat business, as well as the relationship between motivation and its sustainability.

This can be attributed to dairy goat farmers demonstrating favorable socio-economic characteristics, coupled with good production factors and business motivation. These factors collectively contribute to internal support for business sustainability. However, external factors such as evolving consumer preferences impacting the goat milk market necessitate proactive measures. Market expansion, facilitated by technology that extends product shelf life, becomes imperative for sustained durability and broader market penetration into other regions.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions derived from this study are:

1. The socio-economic characteristic of dairy goat farmers, including education, age, farming experiences, and production facilities, contribute to business sustainability;
2. The entrepreneur's motivation among the dairy goat farmer falls into the medium category because farmers exhibit business logic, considering profitability, which means they may switch to mixed business when the business is no longer profitable;
3. The sustainability of dairy goat business falls into the medium category. The level of business sustainability is not optimal because of the risk and difficulty in marketing milk products;
4. The farmer's strategy in maintaining this business are by promotional activities and increase resellers to attract more consumers;
5. There was a positive correlation between socio-economic with sustainability business (rs = 0.542) and between entrepreneur motivation with dairy goat sustainability business (rs = 0.572). From this result, dairy goat farmers should mix farming to get revenue from other businesses to maintain business sustainability.

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