THE NEED FOR MEDIA TO DISSEMINATE INFORMATION ABOUT GOAT FARMING AND THE CONSUMPTION OF GOAT MEAT OR GOAT PRODUCTS AMONG THE PUBLIC IN THE SOUTHERN REGION OF THAILAND

Ekkaphon Thongkaew ¹, Apinya Ratanachai ² and Saowanee Lekbangpong ³

School of Agricultural Technology King Mongkut's Institute of Technology Ladkrabang, Thailand.
Faculty of Natural Resources Prince of Songkla University Songkla, Thailand.
Faculty of Technology and Community Development Thaksin University, Thailand.

DOI: 10.5281/zenodo.11083111

Abstract

This research offers a comprehensive analysis of demographic characteristics, knowledge access, media preferences, and interest in media activities among a sample group primarily located in Phatthalung Province, Thailand. The findings indicate a predominantly female population, with a significant proportion falling within the 25–35 age range and having completed high school education. Buddhists constitute the largest religious affiliation among respondents. The study highlights the potential for effective information dissemination in the agricultural sector, particularly goat farming, due to the sample group's interest and knowledge in agriculture. Government officials, community leaders, and specific media outlets emerge as crucial sources of information on goat farming. Additionally, the high interest in media activities, especially festivals and outlets, suggests an opportunity for targeted engagement to promote goat farming and related products. These findings recommend developing tailored communication strategies, educational initiatives, media selection, and collaborative partnerships to effectively reach and engage the target audience in promoting goat farming practices and related products.

Keywords: Media, Need, Goat, Thailand.

INTRODUCTION

Goat farming in Thailand has emerged as a promising venture due to its adaptability to diverse environments and potential for substantial economic returns. This comprehensive guide explores various aspects of goat farming in Thailand, such as suitable breeds, management practices, economic opportunities, and challenges (Department of Livestock Development, 2020). Traditional and modern techniques coexist in different regions, with breeds such as Boer, Saanen, Anglo-Nubian, and local Thai breeds being commonly raised (Suriyasathaporn et al., 2019). Management practices emphasise housing, feeding, healthcare, and breeding to ensure herd health and productivity. Economic prospects include growing demand for goat products domestically and internationally, with value-added products offering additional income streams (Choldumrongkul & Sukon, 2018). However, challenges such as disease outbreaks, infrastructure limitations, and market fluctuations necessitate sustainable management practices and access to veterinary services for long-term viability. By integrating insights from research and practical experience, this guide aims to equip farmers with the knowledge they need to thrive in Thailand's dynamic goat farming industry.

Goat farming is a vital part of agricultural activities in many regions globally, including Southern Thailand. With its unique geographical features, climate, and cultural practices, Southern Thailand offers conducive conditions for goat farming. This essay

explores the significance, challenges, and opportunities associated with goat farming in Southern Thailand, drawing insights from scholarly sources and agricultural data.

Goat farming serves as a vital source of income and sustenance for many households in Southern Thailand. The predominantly rural landscape of the region, characterised by small-scale farming, makes goat farming a viable option for supplementing household incomes and ensuring food security. Sombat et al. (2019) stated that goats are prized for their adaptability to the local environment, low maintenance requirements, and high reproductive rates, making them an attractive option for farmers. Moreover, goat products, such as meat, milk, and hides, contribute significantly to the local economy and dietary diversity. The demand for goat meat has steadily increased, driven by its perceived health benefits and cultural significance in Thai cuisine (Muttitanon & Samanchuen, 2020). Additionally, goat milk production has gained traction as an alternative to cow milk, offering nutritional benefits and catering to lactose-intolerant consumers. Despite its importance, goat farming in Southern Thailand faces several challenges. One of the primary issues is disease management and healthcare. Goats are susceptible to various diseases, including parasitic infections and respiratory ailments, which can significantly impact herd productivity and profitability (Kaewlamun et al., 2018). Limited access to veterinary services and inadequate healthcare knowledge among farmers exacerbate these challenges. leading to economic losses and reduced sustainability. Furthermore, environmental factors such as water scarcity and food shortages during dry seasons pose significant constraints to goat farming practices. Southern Thailand's climatic variability and periodic droughts further exacerbate these challenges, necessitating innovative solutions for water management and forage production. Despite the challenges, there are opportunities for enhancing the sustainability and profitability of goat farming in Southern Thailand. Collaborative efforts between government agencies, research institutions, and local communities can facilitate knowledge transfer and capacity building in goat management practices. Extension services focusing on disease prevention, nutrition, and breeding techniques can empower farmers to improve herd health and productivity. Moreover, investment in infrastructure development, such as water harvesting systems and communal grazing lands, can mitigate the impact of environmental constraints on goat farming. Integrating agroforestry practices and crop-livestock integration can also enhance resource efficiency and resilience to climate variability.

In Southern Thailand, goat consumption plays a significant role in the region's culinary traditions, cultural practices, and economic landscape. Goats have been integral to the livelihoods of many communities in Southern Thailand for generations, with their meat featuring prominently in local cuisine. This essay explores the cultural significance, culinary practices, and economic impact of goat consumption in Southern Thailand. Cultural Significance: Goat consumption in Southern Thailand is deeply rooted in the region's cultural heritage (Parker, 2016). Historically, goats have been raised by local communities for their meat, milk, and other products. Goats are often featured in religious ceremonies, festivals, and celebrations, symbolising prosperity, fertility, and abundance (Smith & & Hill, 2019). In numerous communities, the slaughtering of a goat is considered a sacred ritual, accompanied by prayers and offerings to ensure blessings and good fortune. Culinary Practices: The culinary landscape of Southern Thailand is rich and diverse, with goat meat being a staple ingredient in many traditional dishes. The most popular goat dish, "Kaeng Karii Khae"

or goat curry, is prepared with a blend of aromatic spices, coconut milk, and tender goat meat. Another favourite dish, "Kao Mok Kai" or goat biryani, is a fragrant rice dish cooked with spices and tender goat meat, reflecting the region's cultural influences. In addition to goat curries and biryanis, goat meat is also used in stir-fries, soups, and grilled dishes, demonstrating the versatility of this ingredient in Southern Thai cuisine. Many local restaurants and street vendors specialise in goat dishes, attracting both locals and tourists seeking authentic culinary experiences. Economic Impact:

The goat industry plays a vital role in the economy of Southern Thailand, providing employment opportunities and income for many rural communities. Goat farming is a common livelihood for farmers in the region, particularly in areas with limited arable land. The sale of goat meat, milk, and other products contributes to the local economy, supporting small-scale farmers and agribusinesses (Thailand Department of Livestock Development, 2021). Moreover, the demand for goat meat extends beyond Southern Thailand, reaching into other parts of the country as well. The export of goat meat to neighbouring countries, such as Malaysia, has become increasingly lucrative, generating revenue and boosting trade opportunities for Southern Thai farmers and producers (Bangkok Post, 2023).

Therefore, it is crucial to research the necessity for media dissemination of information about goat farming and the consumption of lamb or goat products among the people in the southern region of Thailand. This will allow relevant agencies to use the data for planning purposes, enabling public awareness of news related to goats and goat products, along with the various benefits derived from them. Furthermore, it will stimulate public interest in goat consumption as a viable alternative. By raising awareness about the nutritional benefits and culinary versatility of goat meat and goat-derived products, this research can encourage healthier dietary choices and foster a greater appreciation for local agricultural resources.

METHOD

Population

The research population includes participants from the 17th edition of the Agricultural Fair at Thaksin University, held from 11th to 20th August 2023.

Sample group

The sample group used in the research consists of participants from the 17th edition of the Agricultural Fair at Thaksin University, held from 11th to 20th August 2023. The researchers determined the size of the sample group by calculating in cases where the exact population size is unknown; with a confidence level of 95% and a margin of error of 0.05, the sample size would be 385 people. However, in practice, the sample could be increased to 400 people (Silanoy, 2023). Therefore, the research team collected a sample of 400 people, resulting in a confidence level of 95.44%, slightly higher than the predetermined 95%. The researchers conducted the sampling using random sampling methods from 11th to 20th August 2023 at Thaksin University, Phatthalung Campus (Samranjai, 2001).

Variables

In this research, the investigators examined various variables, including independent variables comprising gender, age, religion, domicile, marital status, family size, highest level of education, and monthly income. Dependent variables included the demand for

media to disseminate information about goats. This includes personal media, print media, electronic media, and activity-based media.

Data analysis

The statistics used for analysis are as follows: Descriptive statistics are employed to describe the characteristics of the data, including frequency, percentage, mean, and standard deviation. These are used to provide a general overview of the questionnaire respondents, including their demographic information and their reception and demand for goat-related information through various media. Inferential statistics are used to analyse the relationships between independent and dependent variables. The Independent Sample t-test is utilised to examine the relationship between the gender variable and the dependent variables, which include the reception of goat-related information and the demand for media to disseminate such information. Additionally, the F-Test, specifically the One-Way ANOVA, is employed to analyse the variance between the means of the dependent variables across different groups based on one or more independent variables.

RESULTS AND DISCUSSION

Personal information

This research gathered data from a sample using a questionnaire with a total of 400 respondents. The majority of the sample, 55.75%, identified as female, while males accounted for 44.25%. Regarding education levels, the highest percentage was for those who completed high school, at 48.00%, followed by those with a bachelor's degree at 46.28%, and primary education at 0.50%. Regarding religious affiliation, the majority identified as Buddhists at 77.75%, followed by Muslims at 19.50%. The highest proportion of respondents hailed from Phatthalung Province at 43.00%, followed by Nakhon Si Thammarat Province at 15.25% (Figure 1).

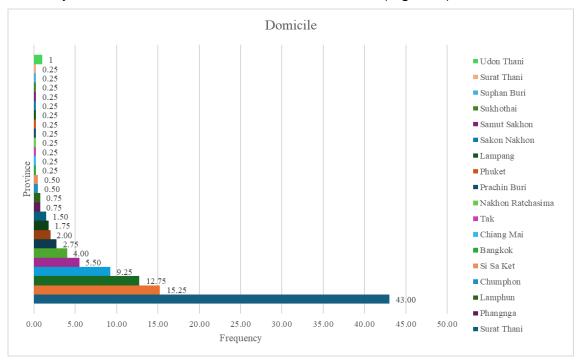


Figure 1: The domicile of the sample group.

The average age of the respondents was 36.89 years, with the highest percentage falling in the 25–35 age range at 32.25%. The subsequent age groups were 36–45 years at 23.00%, 45–55 years at 18.50%, and 55 years and above at 8.00%. More than half of the sample, 69.75%, had never received information about goats and goat products, while 30.25% had received such information. The results demonstrated that the sample group consists of young people with knowledge, the ability to access various information, and an interest in agriculture, which is consistent with the study on Agricultural Knowledge Needs of Visitors to the 28th Southern Agricultural Fair in Thailand (Ratanachai et al., 2023). The visitors who joined the event were predominantly female, comprising 57.75% females, 41.00% males, and 1.25% of alternative sex, with an average age of 29.61 years. Most of them were Buddhists, accounting for 66.50% of the single attendees, with 70.75% representing those who graduated with a bachelor's degree and the most representing 65.75% (Table 1).

Table 1: Personal information

Personal Information	Frequency	Percentage
Gender		_
Male	177	44.25
Female	223	55.75
Education Level		
Primary School	2	0.50
Lower Secondary School	15	3.75
Vocational Certificate/Diploma	6	1.50
Upper Secondary School	192	48.00
Bachelor's Degree	185	46.25
Religion		
Buddhist	311	77.75
Islam	78	19.50
Christian	11	2.75
Marital Status		
Single	189	47.52
Married	190	47.50
Widowed	15	3.75
Separated	6	1.50
Age (years)		
Less Than 24	73	18.25
25–35	129	32.25
36–45	92	23.00
45–55	74	18.50
More Than 55	32	8.00
Receiving News About Goats		
Never Received	279	69.75
Received	121	30.20

The Need Of Media To Disseminate Information About Goat Farming And Consumption Of Goat Meat Or Goat Product

Personal media need

The majority of the sample group has a high level of demand for personal communication, averaging 3.19. The analysis revealed that within the sample group, the demand for media to disseminate information about goat farming and consumption of goat meat or goat products is highest from government officials (averaging 3.46), followed by community leaders (averaging 3.41), company officials (averaging 3.24), and with the lowest demand from neighbours (averaging 2.88) (Table 2). Government

officials are directly involved and represent the government in disseminating news and information that is most reliable and impactful on farming conditions or knowledge about goat products. The findings regarding the high demand for personal communication within the sample group, particularly concerning information related to goat farming and the consumption of goat meat or products, shed light on the significance of effective communication channels in agricultural contexts. The emphasis on receiving information from government officials, community leaders, and company representatives underscores the importance of credible sources and authoritative figures in disseminating knowledge within the community (Sweeney, 2010). One possible explanation for the elevated demand for information from government officials is the perception of reliability and trustworthiness associated with governmental agencies. Government bodies often play a crucial role in regulating and overseeing agricultural practices, providing farmers and consumers with essential information regarding farming techniques, product quality, and safety standards. Consequently, individuals within the sample group may prioritise information from government officials due to the perceived authority and expertise they possess in matters related to goat farming and consumption (Bledsoe, 2008). Moreover, the reliance on information from community leaders and company officials underscores the significance of localised knowledge networks and industry expertise. Community leaders may serve as intermediaries between governmental agencies and local communities, facilitating the dissemination of information tailored to the specific needs and concerns of sheep farmers and consumers (Rimal & Real, 2003). Similarly, company officials may offer valuable insights into market trends, product innovations, and industry best practices, therefore addressing the informational needs of stakeholders within the sheep farming sector. The comparatively lower demand for information from neighbours highlights the importance of professional expertise and institutional support in addressing the informational needs of the sample group. While informal networks and peer-to-peer communication channels undoubtedly play a role in knowledge exchange within agricultural communities, the findings suggest a preference for information sourced from authoritative figures and institutional sources (Young, 2012). In conclusion, the observed patterns of demand for personal communication underscore the importance of credible and authoritative sources in disseminating information within agricultural contexts. By leveraging the expertise of government officials, community leaders, and industry representatives, stakeholders within the goat farming sector can access timely and relevant information to enhance productivity, ensure product quality, and promote consumer confidence.

Table 2: Personal media need

Personal Media	$\bar{\mathbf{x}}$	S.D.	Interpretation
Neighbour	2.88	1.11	Lowest
Siblings' Relatives	2.96	1.15	Lowest
Community Leader	3.41	1.21	High
Government Official	3.46	1.30	High
Company Personnel	3.24	1.33	High
Total	3.19	1.00	High

Remark: 4.21–5.00 means highest level of need. 3.41–4.20 means high level of need.

2.61–3.40 means moderate level of need. 1.81–2.60 means low level of need.

1.00–1.80 means lowest level of need.

Print media need

The majority of the sample group has a moderate level of demand for printed media, averaging 2.98. When considering specific issues, it was found that the sample group has the highest demand for media to disseminate information about goat farming and the consumption of goat meat or goat products through newspapers, averaging 3.41 (Smith LJ et al., 2021). Following that are brochures, averaging 3.15, followed by instructional documents or manuals at the same level, averaging 2.90, and the least demand for agricultural journals, averaging 2.54 (Johnson & Brown, 2018) (Table 3). This is because newspapers are easily accessible, available for purchase everywhere, and accessible to people of all ages, making them the medium through which the sample group has the highest demand for knowledge. Additionally, newspapers are affordable, which makes them accessible to a wide audience (Jones, 2019). They shed light on the preferences and demand for printed media within the sample group, particularly in the context of disseminating information about goat farming and the consumption of goat meat or related products (Smith LJ et al., 2021; Johnson & Brown, 2018). Understanding these preferences is crucial for effective communication and dissemination strategies within the agricultural domain. The moderate level of demand for printed media across the sample group, as indicated by an average score of 2.98, suggests that while there is interest, it may not be overwhelmingly high. However, the specific preferences for different types of printed media reveal valuable insights into the preferred channels for accessing information. Newspapers emerge as the most preferred medium for disseminating information about goat farming and related products, with an average score of 3.41, and this preference can be attributed to several factors. Firstly, newspapers are widely accessible and available for purchase in various locations, making them convenient for individuals across various demographics. Their affordability further enhances their accessibility, ensuring that a wide audience can access the information they contain. Brochures and instructional documents or manuals also demonstrate significant demand, albeit slightly lower than newspapers. Brochures, with an average score of 3.15, offer a concise and visually appealing format for presenting information, making them attractive to the sample group. Similarly, instructional documents or manuals, with an average score of 2.90, provide detailed guidance and reference material, catering to individuals seeking indepth knowledge about goat farming and related products. In contrast, agricultural journals exhibit the least demand among the sample group, with an average score of 2.54. This could be attributed to factors such as accessibility and relevance. Agricultural journals may be perceived as more specialised and targeted towards professionals within the agricultural industry, potentially limiting their appeal to the broader audience represented by the sample group.

Table 3: Print media need

Print Media	$\bar{\mathbf{x}}$	S.D.	Interpretation
Newspaper	3.41	1.32	High
Agricultural Journals	2.54	1.19	Moderate
Brochures	3.15	1.30	High
Poster	2.90	1.17	Moderate
Recommended Documents/Manuals	2.90	1.20	Moderate
Total	2.98	1.00	Moderate

Remark: 4.21–5.00 means highest level of need. 3.41–4.20 means high level of need. 2.61–3.40 means moderate level of need. 1.81–2.60 means low level of need. 1.00–1.80 means lowest level of need.

Electronic media need

The majority of the sample group has a high demand for electronic media, averaging 3.48. Upon considering the issues, it was found that the sample group has the highest demand for media to disseminate information about goat farming and goat meat or goat-derived products from television, averaging 4.14. Next in line is radio, averaging 3.86, followed by television, averaging 3.06, and the least demand is for mobile phones, averaging 2.85 (Table 4).

This is because television media can be accessed during leisure time as it contains the desired content already prepared. Radio and television are media that can reach the target audience in large numbers and conveniently, making it easier for the sample group who want to purchase all three types of media (Johnson & Brown, 2018). The findings suggest that within the sample group, there is a notable demand for electronic media, particularly for information related to goat farming and goat-derived products. Television emerges as the preferred medium for accessing this information, followed closely by radio and then traditional television. One significant reason for the high demand for television media could be its accessibility during leisure time. Television content is often pre-prepared and readily available, making it convenient for individuals to consume information about goat farming and related products without significant effort. Moreover, the visual nature of television allows for more engaging and immersive content presentation, which may enhance its appeal to the sample group.

The popularity of radio as a preferred medium for information dissemination could be attributed to its wide reach and accessibility. Radio broadcasts can reach a large audience, including those in remote areas where other forms of media might be less accessible. Additionally, radio broadcasts can be consumed passively, allowing individuals to multitask while listening, which adds to its convenience.

Traditional television, which remains relevant, appears to be slightly less preferred compared to the other media options. This could be due to the increasing prevalence of digital platforms and streaming services, which offer more diverse content and flexible viewing options. However, its inclusion in the preferred media list indicates that it still holds significance among the sample group, albeit to a lesser extent. Surprisingly, mobile phones, which are often considered a ubiquitous source of information and entertainment, have the lowest demand among the sample group for accessing information about goat farming and related products. This could be due to various factors, including the smaller screen size, potential data limitations, or preferences for other forms of media for consuming such content.

Table 4: Electronic media need

Electronic Media	$\bar{\mathbf{x}}$	S.D.	Interpretation
Television	3.06	1.28	Moderate
Radio	3.86	1.09	High
Mobile Phone	2.85	1.26	Low
Video	4.14	1.01	High
Total	3.48	0.85	High

Remark: 4.21–5.00 means highest level of need. 3.41–4.20 means high level of need.

2.61-3.40 means moderate level of need. 1.81-2.60 means low level of need.

1.00–1.80 means the lowest level of need.

Online media need

The majority of the sample group expressed a high level of demand for online media, averaging 3.32. When considering specific issues, the sample group demonstrated the highest demand for media to disseminate information about goat farming and consumption of goat meat or goat-derived products on TikTok, averaging 3.78. Following closely behind was Twitter, averaging 3.78, then Line, averaging 3.43. YouTube had the lowest level of demand, averaging 2.59 (Table 5). The significant demand for online media platforms, particularly for disseminating information related to goat farming and the consumption of goat products, underscores the evolving landscape of digital media consumption and its influence on consumer behaviour (Smith et al., 2012). This trend suggests that platforms such as TikTok and Twitter are becoming increasingly influential in shaping consumer perceptions and preferences regarding goat-related topics. The visual and interactive nature of TikTok, coupled with its ability to rapidly disseminate content, makes it particularly effective in capturing the attention of audiences interested in agriculture and food-related issues (Statista Research Department, 2023). Twitter, with its real-time updates and ability to facilitate conversations around specific topics through hashtags and trending topics, also serves as a key platform for sharing information and engaging with audiences interested in goat farming and related products (Diddi & LaRose, 2006). Conversely, platforms such as Line and YouTube, which remain relevant, appear to have a lower level of demand for disseminating such content. This could be due to factors such as the demographics of users on these platforms or the type of content typically consumed and shared. As digital media continues to shape consumer behaviour and preferences, businesses and content creators in the agriculture and food industries should consider leveraging platforms such as TikTok and Twitter to effectively reach and engage with their target audiences.

Online Media S.D. Interpretation 3.43 1. Line 1.21 High 2. Facebook 3.05 1.26 High 3. Website 3.94 1.07 High 4. Instagram 2.80 1.36 Moderate 2.59 1.27 5. YouTube Low 6. TikTok 3.78 1.24 High 7. Twitter 3.64 1.35 High 3.32 Total 0.88 High

Table 5: Online media need

Remark: 4.21-5.00 means highest level of need. 3.41-4.20 means a high level of need.

2.61–3.40 means moderate level of need. 1.81–2.60 means low level of need.

1.00-1.80 means lowest level of need.

Activity media need

The majority of the sample group has a high level of interest in media activities, averaging 3.15. When considering specific issues, the sample group has the highest interest in media dissemination of information related to goat farming and consumption of goat meat or goat-derived products from festivals, averaging 3.57. Following closely is interest in outlets, averaging 3.43, then exhibitions averaging 3.36, and the least interest in training, averaging 2.23 (Table 6). This data suggests a strong inclination

among the sample group towards media-driven initiatives, particularly concerning the dissemination of information related to goat farming and the consumption of goat-derived products. The higher interest in media activities could be attributed to the accessibility and widespread of various media platforms, including social media, television, and online publications (Smith LJ, et al., 2020). Moreover, the emphasis on outlets and exhibitions indicates a desire for tangible experiences and direct interactions, possibly reflecting a preference for hands-on learning and engagement with the subject matter. Conversely, the relatively lower interest in training suggests that the sample group may not prioritise formal educational opportunities as they do interactive and experiential ones (Jones, 2019). These findings can be valuable for organisations and stakeholders involved in goat farming and related industries, guiding them in developing targeted communication strategies and educational programmes to effectively reach and engage with their target audience.

Table 6: Activity media need

Activity Media	$\bar{\mathbf{x}}$	S.D.	Interpretation
Training	2.23	1.21	Low
Festival	3.57	1.11	High
Outlets	3.43	1.17	High
Exhibitions	3.36	1.20	High
Total	3.15	0.92	High

Remark: 4.21–5.00 means highest level of need. 3.41–4.20 means high level of need.

2.61–3.40 means moderate level of need. 1.81–2.60 means low level of need.

1.00-1.80 means the lowest level of need.

CONCLUSIONS

Demographic Overview: The research provides a comprehensive overview of the sample group, revealing a predominantly female population with a significant representation from Phatthalung Province. The age distribution indicates a relatively young demographic, with a notable portion falling within the 25-35 age range. Educational and Religious Affiliation: The majority of respondents have completed high school, with Buddhists comprising the largest religious affiliation. These demographic insights are essential for tailoring communication strategies to the preferences and backgrounds of the target audience. Knowledge and Information Access: The study suggests that the sample group, characterised as young and knowledgeable individuals with interest in agriculture, highlights a potential for effective information dissemination in the agricultural sector. Media Preferences: The research identifies varying degrees of demand for different media channels. Government officials and community leaders are perceived as crucial sources of information on goat farming, emphasising the importance of credible and authoritative figures in communication strategies. Interest in Media Activities: The high level of interest in media activities, particularly in festivals and outlets, suggests an opportunity for targeted engagement through these platforms for promoting goat farming and related products.

Suggestions

- Tailored Communication Strategies: Develop communication strategies that consider the demographic characteristics of the sample group, emphasising channels preferred by the target audience, such as government officials, community leaders, and specific media outlets.
- 2) Educational Initiatives: Given the high demand for information on goat farming and products, educational initiatives should be designed to address the specific needs and preferences of the audience. This could include workshops, seminars, and outreach programmes led by authoritative figures.
- 3) Media Selection: Allocate resources effectively by prioritising media channels with the highest demand. For example, focus on television and TikTok for electronic and online media, as they have demonstrated the highest levels of demand.
- 4) Collaborative Partnerships: Establish partnerships with community leaders, government officials, and companies to enhance information dissemination. Collaborative efforts can amplify the impact of outreach programmes and ensure more comprehensive coverage.

References

- 1) Bledsoe, C. (2008). Information sources used by livestock producers. *Journal of Extension*, *46*(5), 5RIB3.
- 2) Choldumrongkul, S., & Sukon, P. (2018). Economic analysis of goat farming in Northern Thailand Kasetsart. *Journal of Social Sciences*, *39*(2), 299–305.
- 3) Department of Livestock Development. (2020). *Livestock Statistics of Thailand 2020. Bangkok, Thailand*: Department of Livestock Development.
- 4) Diddi, P., & LaRose, R. (2006). Getting hooked on news: Uses and gratifications and the formation of news habits among college students in an internet environment. *Journal of Broadcasting & Electronic Media*, *50*(2), 193–210.
- 5) Johnson, B., & Brown, C. (2018). Information preferences of sheep farmers: A survey analysis. *Journal of Agricultural Extension*, *15*(2), 45–58.
- 6) Jones, D. (2019). Accessibility and affordability of print media in agricultural communities. *Journal of Rural Studies*, *25*(4), 231–245.
- 7) Kaewthamasorn, M., Takeda, M., Saiwichai, T. et al. Genetic homogeneity of goat malaria parasites in Asia and Africa suggests their expansion with domestic goat host. Sci Rep 8, 5827 (2018). https://doi.org/10.1038/s41598-018-24048-0
- 8) Muttitanon, W.& Samanchuen, T. (2020). Internet Cost Reduction Using Internet Exchange Point: A Case Study of Internet Network of Thailand. *Wireless Personal Communications*, 115, 3177-3198.
- 9) Parker, W. C., Lo, J. C. (2016). Reinventing the High School Government Course: Rigor, Simulations, and Learning from Text. Democracy and Education, 24 (1), Article 6. Available at: https://democracyeducationjournal.org/home/vol24/iss1/6
- 10) Ratanachai, A., Thongkaew, E., Lekbangpong, S., Thepkun, P., Raksasiri, B. V., Viriyasombat, T., Kheawpan, K. (2023). Opinions on the consumption of goat meat and goat products in Southern Thailand. *Journal of Survey in Fisheries Sciences*, *10*(3), 630–637.
- 11) Rimal, R. N., & Real, K. (2003). Understanding the influence of perceived norms on behaviors. *Communication Theory*, *13*(2), 184–203.

- 12) Samranjai.J. (2001). Determining the sample size for research. SE-Education PCL, Bangkok.
- 13) Smith, K., & Hill, J. (2019). Defining the Nature of Blended Learning through Its Depiction in Current Research. Higher Education Research & Development, 38, 383-397. https://doi.org/10.1080/07294360.2018.1517732
- 14) Smith, A. N., Fischer, E., & Yongjian, C. (2012). How does brand-related user-generated content differ across YouTube, Facebook, and Twitter? *Journal of Interactive Marketing*, *26*(2), 102–113.
- 15) Smith LJ, Schurer JM, Ntakiyisumba E, Shyaka A, Amuguni JH (2021) Rift Valley fever knowledge, mitigation strategies and communication preferences among male and female livestock farmers in Eastern Province, Rwanda. PLoS Negl Trop Dis 15(8): e0009705. https://doi.org/10.1371/journal.pntd.0009705
- 16) Statista Research Department. (2023). *Number of monthly active TikTok users worldwide from January 2018 to December 2022. Statista*. [Internet User Research] https://www.statista.com/statistics/1095186/tiktok-global-monthly-active-users/.
- 17) Suriyasathaporn, W., Tudsri, S., & Thongpan, A. (2019). Goat production in Thailand: Current status, challenges, and opportunities. *Thai Journal of Veterinary Medicine*, 49(4), 543–552.
- 18) Sweeney, E. (2010). The role of government in agriculture. AgBioForum, 13(2), 97–100.
- 19) Young, J. A. (2012). Agricultural extension, technology adoption, and poverty reduction: A study of cassava farmers in six states of Nigeria. *Journal of Development and Agricultural Economics*, *4*(11), 300–309.