

## Exploring social media usage among different generations of Thai farmers

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**Abstract:** Social media's pervasive influence extends to the agricultural sector, driving transformative changes. The purpose of this study aims to comprehensively overview how different generations of Thai farmers utilize social media. It has two principal objectives: first, to explore farmers' behavior in relation to the frequency of social media use, their preferred platforms, and engaging advertising formats; and second, to examine the correlation between different generations of farmers and their choice of social media platforms. The study employed purposive sampling and quantitative methodologies to survey Thai farmers, utilizing questionnaires for data collection and analyzing the data with descriptive statistics. A total of 150 participants took part, evenly distributed across rice cultivation, gardening, and arable crop cultivation. The findings of this study showed that social media platform usage among farmers was found to vary by generation, with each cohort demonstrating distinct preferences for different platforms. It was observed that older generations, such as Baby Boomers and Gen X, tended to concentrate their social media usage on a select few platforms, while younger generations, including Gen Y and Gen Z, exhibited more diversified usage patterns. Therefore, understanding generational differences in social media platform usage among farmers remains crucial for developing targeted communication strategies, facilitating knowledge dissemination, and enhancing market engagement within the agricultural sector. Encouraging the utilization of social media in agricultural promotion initiatives maximizes benefits for farmers and aids in adapting to the changing landscape of the agricultural industry in Thailand in the digital era.

**Keywords:** Advertising, Agricultural, Different generations, Digital marketing, Farmers, Social media.

### 1. Introduction

Social media is an integral part of our everyday routines, impacting various industries and sectors. Within the agricultural sector, social media assumes a critical role, catalyzing a transformation. It notably optimizes marketing procedures, heightens the visibility of agricultural goods, minimizes costs, and bolsters farmers' revenues by stimulating demand for their products [1]. The different generations of farmers are using social media platforms for various purposes related to their farming activities. These platforms have become a valuable tool for farmers to access information, knowledge, dissemination, adaptation strategies, and connect with other farmers [2]. Social media emerges as a powerful instrument for agricultural marketing, with agricultural businesses increasingly favoring its use for professional growth, networking, communication to market their products, and staying updated on agricultural production and industry-related information. Nevertheless, employing social media for agricultural marketing necessitates specific knowledge and expertise [3]. Additionally, the aging population of farmers in Thailand, coupled with a diminishing interest in farming careers among the younger generation of farmers' heirs, may soon precipitate a severe labor shortage in Thailand's agricultural sector in the near future [4]. This issue highlights the urgent need to integrate modern tools and practices, such as social media, to make agriculture more appealing to younger generations.

The impact of social media on farmers' behavior, as observed in different contexts, further illustrates its potential to influence agricultural practices and preferences among different generations.

In the past, previous research established that social media emerged as a contemporary area of focus within the realm of agricultural extension. In Thailand, most farmers did not embrace social media, resulting in these platforms retaining limited significance as channels for agricultural information. Nevertheless, a small percentage of farmers utilized social media applications such as LINE, Facebook, and YouTube primarily for communication, updates, and entertainment. The adoption of social media was notably higher among younger farmers and those with higher levels of formal education, indicating a distinct technology usage gap across generations [5]. A number of researchers examined the utilization of social media across various generations, with a particular focus on comparing the usage between Generation Y (millennials) and Generation Z. The research indicated that Generation Z demonstrated a higher propensity for using social media platforms for purposes such as education, entertainment, shopping, and socializing compared to Generation Y. However, both generations exhibited equal levels of engagement in utilizing social media for seeking information. Younger individuals perceived social media as integral to their everyday routines, while embracing novel technologies and exploring innovative communication methods, traits shared by both generations [6]. Another study explored the integration of social media as an advisory tool among smallholder farmers and underscored its capacity to improve communication and facilitate accessibility to agricultural information. The study revealed variations in the diffusion of innovation attributes across gender, age, and educational levels [7]. Moreover, in Thailand during the COVID-19 pandemic, social media played a crucial role in maintaining social connections and supporting communities during challenging times. Social capital strengthened resilience and aided in recovery throughout the pandemic, as face-to-face interactions were replaced by online social engagement, thereby making community interactions and mutual exchanges pivotal in enhancing social capital [8]. These studies collectively suggest that social media has become a crucial tool for farmers and agribusiness in Thailand, not only in terms of socialization and information sharing but also as a means to enhance educational opportunities and support local community resilience.

Currently, there is no research that delves into the unique ways in which various generational cohorts of Thai farmers engage with different social media platforms. This gap presents a missed opportunity to understand the diverse landscape of their online behaviors, and this study aims to bridge this gap by illuminating the intricate interplay between different generations and different social media platforms for useful marketing strategies within the context of the agriculture industry in Thailand.

Therefore, this study aims to provide a comprehensive overview of how different generations of Thai farmers are utilizing social media. In this context, two principal objectives are: (1) to explore the behavior of farmers in relation to the frequency of using social media, using different social media platforms, and interesting advertising media formats; and (2) to explore the different generations of farmers associated with the use of different social media platforms. By understanding these dynamics, the study provides insights that could assist in devising strategies to promote broader adoption of social media among farmers. This, in turn, enhances their access to information, resources, and markets, thereby integrating them into the evolving landscape of agriculture business in Thailand in the digital age.

## 2. Methodology

The research conducted in 2023 surveyed Thai farmers using purposive sampling and quantitative methods, employing questionnaires for data collection. 150 farmers participated, divided equally among rice cultivation, gardening, and arable crop cultivation. Participant recruitment was respectful and non-coercive, ensuring confidentiality. The questionnaire comprised two sections: Section A captured demographic information, while Section B evaluated the study's objectives. After collecting the survey results, descriptive statistics were used for data analysis. For each question, the number and response percentage of respondents were displayed to better understand the trend of responses.

The definitions of birth years to define the age groups of study participants were as follows: Generation Z, born between 1997 and 2012; Millennials or Generation Y, born between 1981 and 1996; Generation X, born between 1965 and 1980; and baby boomers, born between 1946 and 1964 [9].

### 3. Results

#### 3.1. Demographic Information of Farmers

The response percentage was determined by considering the total number of participants who made an effort to answer the question. Detailed responses for Section A of the survey could be found in Table 1.

**Table 1.**  
Demographic profile of the survey participants.

Question	Participant count (n=150)	Proportion of respondents for each response (%)
<b>Gender</b>		
Male	72	48.00
Female	78	52.00
<b>Age</b>		
less than 20 years		
21 - 30 years of age	3	2.00
31 - 40 years of age	22	14.67
41 - 50 years of age	29	19.33
51 - 60 years of age	31	20.67
More than 60 years	38	25.33
	27	18.00
<b>Education level</b>		
Elementary School	64	42.67
Junior High School	17	11.33
Senior High School / Vocational Certificate	37	24.67
Diploma / High Vocational Certificate	4	2.67
Undergraduate	25	16.67
Postgraduate	3	2.00
<b>Main occupation</b>		
Farmers cultivating rice	31	20.67
Farmers cultivating gardens	43	28.67
Farmers cultivating arable crops	45	30.00
Private company employee	11	7.33
Civil servant / Government enterprise worker	6	4.00
General laborer	7	4.67
Trader / Business Owner	7	4.67
<b>Secondary occupation</b>		
None	84	56.00
Farmers cultivating rice	19	12.67
Farmers cultivating gardens	7	4.67
Farmers cultivating arable crops	5	3.33
General laborer	15	10.00
Trader / Business Owner	20	13.33

<b>Average monthly income per household</b>		
Less than 5,000 baht	8	5.33
5,001 - 10,000 baht	27	18.00
10,001 – 20,000 baht	25	16.67
20,001 - 30,000 baht	24	16.00
30,001 – 40,000 baht	9	6.00
More than 40,000 baht	57	38.00

The data in Table 1 indicated that the survey results showed a majority of respondents identified as female, comprising 52.00%, while male respondents accounted for 48.00%. Indeed, most respondents fell within the age range of 51 to 60 years (25.33%), closely followed by the age group of 41 to 50 years (20.67%), and those aged 31 to 40 years (19.33%). This indicated that the majority of Thai farmers were either elderly or transitioning into old age, consistent with previous findings documenting the widespread aging among farmers throughout Thailand [5, 10, 11]. This scenario might have impacted farmers' utilization of social media, given that age played a crucial role in how readily new technologies were embraced [12].

The respondents had demonstrated a low level of formal education. The majority had only completed elementary school, comprising 42.67%. Following closely were those with senior high school or vocational certificates at 24.67%, with 16.67% possessing an undergraduate degree. According to Attavanich, Chantararat [13], while the younger generation of Thai farmers had achieved higher education levels, most farmers were elderly with limited formal education. This likely posed challenges for adopting new technology in agriculture despite the potential for integration.

The survey revealed that the majority of respondents were primarily engaged in arable crop cultivation (30.00%), followed by cultivating gardens (28.67%), and rice cultivation (20.67%). Additionally, the majority (56.00%) had no secondary occupation, while 13.33% were involved in trade/business, and 12.67% were rice farmers, which were the top three secondary occupations based on the responses. Most respondents earn over 40,000 Baht per month (38.00%), followed by 18.00% earning 5,001 to 10,000 Baht, and 16.67% within the 10,001 to 20,000 Baht bracket.

### 3.2. Farmers' Use of Social Media

The proportion of responses was determined based on the total count of participants who made an effort to answer the question. Comprehensive details regarding the responses to Section B of the survey could be found in Tables 2, 3, and 4.

The current study, as depicted in Table 2, examined the frequency of social media use among farmers, segmented by their type of agricultural activity. Data were collected from a total of 150 farmers, evenly divided among those who cultivated rice, gardens, and arable crops. The highest frequency of social media use, 10 or more times per day, was reported by 36.00% of the total farmers surveyed. Interestingly, a significant proportion of rice farmers (36.00%) and garden farmers (42.00%) reported high levels of social media engagement compared to those who cultivated arable crops (30.00%). Notably, 16.67% of all surveyed farmers did not use social media at all, with the highest rate of non-usage reported by rice farmers (32.00%).

The findings suggested a higher engagement with social media among farmers, particularly those engaged in gardening and rice cultivation. This could have indicated the increasing importance of social media as a platform for disseminating farm information, exchanging knowledge, marketing and selling products, and fostering community involvement within the agricultural industry [14]. The relatively elevated proportion of rice farmers who refrained from using social media might have suggested various factors. These potential reasons could encompass restricted accessibility to cellular phone and internet amenities in rural areas of the state, a deficiency in social media literacy, or a preference for conventional farming techniques and communication channels [15].

**Table 2.**  
Frequency of farmers' use of social media.

Frequency of social media utilization	Total farmers include those cultivating rice, gardens, and arable crops		Farmers cultivating rice		Farmers cultivating gardens		Farmers cultivating arable crops	
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
1 - 3 times/Day	38	25.33	5	10.00	12	24.00	21	42.00
4 - 6 times/Day	22	14.67	5	10.00	8	16.00	9	18.00
7 - 9 times/Day	11	7.33	6	12.00	2	4.00	3	6.00
10 or more times/Day	54	36.00	18	36.00	21	42.00	15	30.00
Not using social media	25	16.67	16	32.00	7	14.00	2	4.00
Total	150	100.00	50	100.00	50	100.00	50	100.00

**Table 3.**  
Farmers' use of social media platforms (One person could answer more than one option.).

Utilizing social media platforms	Total farmers include those cultivating rice, gardens, and arable crops		Farmers cultivating rice		Farmers cultivating gardens		Farmers cultivating arable crops	
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
Facebook	118	18.70	30	15.96	41	18.47	47	21.27
Line	115	18.23	29	15.43	42	18.92	44	19.91
YouTube	119	18.86	34	18.09	41	18.47	44	19.91
Instagram	38	6.02	14	7.45	15	6.76	9	4.07
TikTok	97	15.37	31	16.49	33	14.86	33	14.93
Twitter	22	3.49	10	5.32	6	2.70	6	2.71
Google	93	14.74	27	14.36	37	16.67	29	13.12
E-mail/G-mail	29	4.60	13	6.91	7	3.15	9	4.07
Total	631	100.00	188	100.00	222	100.00	221	100.00

The data from Table 3 depicted a varied adoption of social media platforms among farmers, with the highest overall usage reported for YouTube (18.86%), Facebook (18.70%), and Line (18.23%) being the most popular overall. TikTok, despite being a newer platform, had a significant presence (15.37%), potentially indicating its growing relevance among farmers. Instagram, E-mail/G-mail, and Twitter were less commonly used across all farmers (6.02%, 4.60%, and 3.49%, respectively). When considering farmers who cultivated rice, the preference leaned slightly towards YouTube (18.09%), followed by TikTok (16.49%), Facebook (15.96%), and Line (15.43%). Farmers with gardens showed a similar pattern, favoring Line (18.92%), Facebook (18.47%), and YouTube (18.47%) over other platforms. Interestingly, those focusing on arable crops exhibited the highest percentage for Facebook (21.27%), then YouTube and Line (both 19.91%).

The research findings indicated that social media played a crucial role for farmers, enabling the spread and acquisition of information, raising awareness about sustainable farming techniques, advocating for best practices, and fostering the exchange of knowledge and experiences among diverse users [16]. The prevalence of YouTube usage among farmers suggested a preference for visual and instructional content, providing a more engaging avenue for acquiring knowledge about farming techniques as well as insights into the production and protection of various crops within the farming community [17].

The extensive utilization of Facebook across diverse farming sectors could be attributed to its large user base and the broad range of content it facilitated sharing. This encompassed activities such as exchanging market or planting information, participating in commercial transactions, and engaging in interactions within the contexts of established social, political, and economic networks [18]. The widespread adoption of Line, especially among farmers tending to gardens, was a result of its messaging functionalities facilitating direct communication. This underscored the significance of digital applications in disseminating agricultural knowledge and offering farming-related services to farmers [19]. TikTok played a notable role among farmers by enabling direct sales of agricultural products on short video platforms, thereby improving farmer-consumer relations, increasing sales, and fostering collective prosperity [20].

The reduced engagement observed on Instagram and Twitter could have indicated a preference for content formats and platform functions conducive to extensive information sharing, as opposed to those emphasizing image-centric or concise updates. This demonstrated that user engagement with social media content was affected by the context of presentation. Engagement on social media platforms was determined by both content type and its contextual suitability within the social media environment [21]. Moreover, the utilization trends could also have been impacted by demographic variables like gender, age, and education level, which had been identified as influencing the adoption of social media among farmers [7]. Additionally, it was imperative to acknowledge that social media served as a platform for promoting agricultural products and broadening market penetration [22].

**Table 4.**  
Advertising media formats that farmers are interested in on social media (One person could answer more than one option.)

Interesting advertising media formats	Total farmers include those cultivating rice, gardens, and arable crops		Farmers cultivating rice		Farmers cultivating gardens		Farmers cultivating arable crops	
	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)	Number	Percentage (%)
Still Image	83	34.16	18	25.35	45	44.12	20	28.57
Sound	18	7.41	5	7.04	8	7.84	5	7.14
Books/Articles	6	2.47	2	2.82	-	-	4	5.71
Animation/Video	136	55.97	46	64.79	49	48.04	41	58.57
Total	243	100.00	71	100.00	102	100.00	70	100.00

According to Table 4, the survey results indicated a clear preference for animation/video as an advertising media format among the total farmers surveyed, with 55.97% indicating interest. This preference was consistent across all categories of farmers, with those cultivating rice showing the highest interest at 64.79%, followed by farmers cultivating arable crops and gardens at 58.57% and 48.04%, respectively. Still images were the second most popular format, with 34.16% of the total farmers showing interest. However, there was a noticeable variation among different farmer groups, with garden cultivators showing the highest preference for still images at 44.12%. Sound and books/articles were the least preferred formats, with sound being slightly more popular at 7.41% compared to books/articles at 2.47%.

The tendency toward animation/video formats might have been ascribed to the dynamic and captivating quality of visual content, which was recognized for its capacity to improve message retention, viewer engagement, and performance in online learning [23]. The comparatively diminished interest in static formats such as books/articles might have stemmed from the rising prevalence of swift and readily consumable sources of information on social media platforms across various reading genres, suggesting a shift away from conventional long-form reading practices [24]. These discoveries correspond with the overarching trend in digital marketing, which underscored the effectiveness of digital video advertisements in captivating a target audience [25]. Furthermore, discrepancies in preferences among various types of farmers could have mirrored the heterogeneous information requirements and behaviors within the agricultural sector. For example, individuals engaged in rice cultivation, arable crop farming, and gardening might have shown a preference for animation/video formats, given their effectiveness in facilitating access to and utilization of agricultural information conveyed through videos, particularly among farmers lacking formal education [26].

### 3.3. Farmers' Different Generations Use of Social Media Platforms

The distribution of responses was determined based on the total number of participants who actively responded to the inquiry. Comprehensive details regarding the responses to Section B of the survey were provided in Tables 5.

**Table 5.**

Different generations of farmers' use of social media platforms (One person could answer more than one option.).

Generation of farmers		Use of social media platforms		
Generation	Number	Social media	Number	Percentage (%)
Baby Boomers (1946 - 1964)	27	Facebook	9	19.57
		Line	11	23.91
		YouTube	11	23.91
		Instagram	-	-
		TikTok	8	17.39
		Twitter	1	2.17
		Google	6	13.04
		E-mail / G-mail	-	-
Total			46	100.00
Gen X (1965 - 1980)	69	Facebook	55	22.27
		Line	49	19.84
		YouTube	54	21.86
		Instagram	8	3.24
		TikTok	42	17.00
		Twitter	3	1.21
		Google	34	13.77
		E-mail / G-mail	2	0.81
Total			247	100.00



Gen Y (1981 - 1996)	29	Facebook	29	17.90
		Line	27	16.67
		YouTube	29	17.90
		Instagram	12	7.41
		TikTok	23	14.20
		Twitter	7	4.32
		Google	27	16.67
		E-mail / G-mail	8	4.94
Total			162	100.00
Gen Z (1997 - 2012)	25	Facebook	25	14.79
		Line	24	14.20
		YouTube	25	14.79
		Instagram	20	11.83
		TikTok	23	13.61
		Twitter	11	6.51
		Google	24	14.20
		E-mail / G-mail	17	10.06
Total			169	100.00

The data presented in Table 5, illustrating the utilization of social media platforms by different generations of farmers, unveiled diverse patterns that were vital for comprehending engagement and information dissemination strategies within the agricultural community.

Baby Boomers demonstrated a less diverse and comprehensive use of social media than younger generations. They showed a preference for platforms such as Line and YouTube, each representing 23.91% of responses. Facebook closely followed with 19.57%. Notably, TikTok also had a significant presence at 17.39%, which was noteworthy for this older demographic. The considerable usage of Line, YouTube, and Facebook, which were the preferred platforms among Baby Boomers, constituted an interesting observation and may have been attributed to specific regional preferences or features of the applications catering to professional or older demographics. This investigation affirmed that Line, YouTube, and Facebook were primarily utilized for communication, amusement, and staying informed about agriculture-related developments [5]. However, the Baby Boomer generation used social media to a lesser extent when compared to the younger generation [27].

Generation X farmers exhibited a greater inclination towards the utilization of social media, with a notable presence on platforms such as Facebook (22.27%) and YouTube (21.86%), closely followed by Line (19.84%) and TikTok (17.00%) based on the responses, thus emphasizing its increasing popularity not only among younger users. This generation utilized social media tools for a variety of purposes, including connecting for professional networking, engaging, generating, disseminating, accessing, sharing knowledge and thoughts, and employing it as a marketing strategy to improve their agricultural productivity and business outcomes [14]. This corresponds with the recognition that social media could play a crucial role in the marketing of farm goods and could substantially influence farmers' revenue [1].

In the study, it was observed that Generation Y farmers exhibited an evenly distributed preference for Facebook and YouTube, with each platform being utilized by 17.90% of respondents. Additionally, Line and Google emerged as popular platforms within this demographic, with each accounting for 16.67% of the responses. The significance of comprehending the motivational requirements of various generational cohorts on social media was underscored in order to devise more efficacious marketing strategies. This implied that Generation Y's involvement with social media not only served for entertainment purposes but also met fundamental psychological needs, including fostering relationships and asserting autonomy, potentially elucidating their comprehensive utilization of these platforms [28].

Generation Y's engagement with social media platforms demonstrated a propensity towards engaging with entertainment-oriented platforms like TikTok (14.20%) and Instagram (7.41%). This behavior underscored a multifaceted approach to social media, encompassing information dissemination, networking, and entertainment.

Generation Z demonstrated the most diverse usage of platforms among farmers. They used Facebook and YouTube, each accounting for 14.79%, and Line and Google, each at 14.20%. Email/Gmail saw a relatively higher usage rate at 10.06%. Twitter, at 6.51%, had the highest usage rate among all cohorts. The youngest generation in farming, Generation Z, showed a strong preference for new and emerging platforms like TikTok (13.61%) and Instagram (11.83%), which were more interactive and visually oriented. This trend likely mirrored the technological environment of their upbringing. Generation Z, surrounded by numerous social media platforms, adopted these channels more extensively than Generation Y. Social media served various functions for them, ranging from information-seeking to entertainment, becoming deeply ingrained in their daily routines and influencing their social interactions and learning processes [6].

#### 4. Discussion

The findings of the current study indicate that the predominant aging demographic among Thai farmers hinders their capacity to embrace emerging technologies, including social media and digital tools. This is consistent with findings by Sayruamyat and Nadee [29], who observed that although many Thai farmers possess smartphones, fewer than 30% utilize social media, suggesting a limited readiness for digital technology adoption among the older farming population. Furthermore, Kanjina [5] disclosed that although younger farmers tend to be better educated, they represent a minority, and the generally low educational levels among farmers impede the adoption of new technologies. Comparable trends are evident in other countries, such as India, where age and education levels influence the adoption of technology [30].

Moreover, the results of the current study emphasize the differing levels of social media utilization among farmers, contingent upon their specific agricultural practices. Notably, rice and garden farmers exhibit higher social media engagement compared to those involved in arable crop cultivation. This disparity can be attributed to a variety of factors. Meena, Meena [14] contend that farmers are increasingly utilizing social media platforms such as Facebook and YouTube to share agricultural information, engage in marketing activities, and communicate with extension workers. The elevated levels of engagement among rice and garden farmers could be attributed to the intensive nature of these agricultural practices, which often necessitate more frequent updates and communication about crop conditions and market prices. Additionally, younger and more educated farmers, who are generally more active on social media, might be disproportionately represented in these groups [31]. The reduced use of social media among arable crop farmers may indicate a lesser need for real-time communication and updates. The substantial number of non-users, particularly among rice farmers, corresponds with the research by Kumar Ghosh, Hasan [32], which indicated that this could be connected to barriers such as insufficient awareness, digital literacy, or access to technology. Comprehending these dynamics can assist in customizing social media strategies for various farming communities, thereby improving information dissemination and agricultural productivity.

The current study results indicate diverse adoption rates of social media platforms among farmers, with YouTube, Facebook, and Line being the most widely used. Despite its relatively recent emergence, TikTok also exhibits substantial presence. This usage pattern is likely influenced by multiple factors. According to Inegbedion, Inegbedion [1], social media platforms improve farmers' efficiency and sales turnover by lowering marketing expenses and boosting demand for agricultural products. The preference for platforms such as YouTube, Facebook, and Line can be ascribed to their extensive usage and the variety of features they provide for disseminating information and interacting with a wide audience. Mishra, Singh [33] discovered that farmers' positive perceptions of social media are associated with higher levels of education, larger landholdings, greater income, increased mass media

exposure, higher social participation, and more frequent extension contact, suggesting that farmers with more resources are more inclined to utilize these platforms. Furthermore, the study by Xie, Wang [34] demonstrated that social media usage in agricultural systems significantly enhances social capital, promoting the adoption and utilization of these platforms for both social and cognitive advantages. These findings imply that farmers' adoption of social media is driven by practical marketing advantages and social interactions, and its use is expected to increase as these platforms continue to offer valuable communication and information-sharing tools.

Furthermore, the current survey results demonstrate that the strong preference for animation/video as advertising media formats among farmers, especially those cultivating rice, can be attributed to the engaging and easily comprehensible nature of visual content. Research shows that animated advertisements are highly effective in grabbing attention and enhancing recall. This is particularly evident when advertisements incorporate structured narratives in video commercials and include several instances of product exposure, which together enhance preference for the advertised product [35]. Similarly, Mocumbe [36] stated that using animated videos on mobile phones can improve agricultural knowledge and facilitate adoption among farmers. The appeal of still images as a secondary preference may be attributed to their simplicity and ease of distribution, which particularly resonates with garden cultivators who favor straightforward content. Overall, the effectiveness of animated advertisements in capturing attention and enhancing memory retention underscores their popularity among diverse farming groups.

The findings that Baby Boomers show a preference for platforms such as Line, YouTube, Facebook, and TikTok, while demonstrating a less diverse and comprehensive use of social media than younger generations, align with results from several studies and can be attributed to various factors highlighted in recent research. According to Carrillo-Durán, Ruano-López [37], the lower engagement of Baby Boomers with brands on social media can be attributed to a misalignment in communication styles, as they favor more direct and familiar platforms, and their media consumption habits and interests do not correspond with the messaging strategies of brands, leading to reduced online interaction. Similarly, Vasudeva [38] suggested that Baby Boomers' social media usage is driven by ease of use and perceived usefulness, emphasizing that the simplicity of technology is a key factor in determining older adults' behavioral intentions towards mobile social media, which may account for their preference for accessible platforms like YouTube and Facebook. Additionally, Hysa, Karasek [27] emphasizes that, unlike younger generations who use a diverse range of social media for multiple purposes, Baby Boomers tend to favor platforms that provide clear and direct benefits. This preference can be further explained by digital literacy levels and familiarity with specific platforms, as Sheldon, Antony [39] point out that Baby Boomers depend on Facebook to compensate for the reduced social activity and face-to-face interactions in their daily lives. Thus, Baby Boomers' preference for platforms such as Line, YouTube, and Facebook, along with their significant presence on TikTok, highlights the impact of familiarity, ease of use, and targeted content on their social media engagement.

The study's findings on social media usage among Generation X and Y farmers are consistent with existing research that emphasizes generational differences in social media preferences. For instance, Lim, Yeo [40] found that Generation X prefers interactive live streaming retail on social media, with promotional deals and broadcaster engagement significantly influencing their purchase intentions, suggesting that companies should provide enticing offers and ensure effective broadcaster interaction to increase sales. Similarly, Generation Y exhibits a more balanced approach towards social media platforms, using Facebook and YouTube equally for information and entertainment purposes. This preference for diverse platforms is further supported by Mude and Undale [6], who suggest that Generation Y leverages social media for education, shopping, entertainment, socialization, and information, indicating that companies should employ targeted social media marketing to attract this demographic. The inclination of Generation X farmers towards Facebook and YouTube is likely driven by their need for video content and social connectivity, as indicated by Mishra, Singh [31]. In contrast,

Generation Y's engagement with entertainment platforms like TikTok and Instagram reflects their broader usage of social media for leisure and interaction.

Furthermore, Generation Z's inclination to use various social media platforms indicates their propensity to adopt emerging technologies and stay current with social media trends. Consistent with the findings of Jambulingam, Francis [41], this study reveals that Generation Z prefers platforms such as Instagram, Facebook, and Twitter for maintaining connections with family and friends and sharing information with others who share similar interests. Furthermore, the high usage rates of platforms such as Facebook, YouTube, Line, TikTok, and Instagram are due to their accessibility and the availability of diverse content that appeals to young farmers. Yadav and Rai [42] emphasized that Generation Z's extensive use of social media, driven by early technological exposure, influences their social identity, emotional well-being, and relationships while offering companies valuable insights for market intelligence, customer relationship management, and brand building, thus highlighting the importance of understanding these dynamics to improve products, services, and regulations for this cohort.

## 5. Conclusion

In conclusion, social media platform usage among farmers varies by generation, with each demonstrating distinct preferences for different platforms and purposes. Older generations, such as Baby Boomers and Gen X, tend to concentrate their social media usage on a select few platforms, whereas younger generations, including Gen Y and Gen Z, exhibit more diversified usage patterns. These trends reflect broader patterns in technology adoption and social behaviors across generations. As the agricultural sector increasingly embraces digital platforms, understanding these generational differences becomes vital for developing targeted communication strategies, facilitating effective knowledge dissemination, and enhancing market engagement. The evidence suggests a growing integration of social media into farming practices, offering a range of benefits from improved information access to expanded market reach. Governments and pertinent agencies should encourage the utilization of social media in agricultural promotion initiatives, with the goal of maximizing benefits for farmers. This integration is crucial for adapting to the changing landscape of agricultural industry in Thailand amidst the digital era.

## Authors' Contributions:

Conceptualization, Nantaphon Phusamphao and Adisak Suvittawat; methodology, Nantaphon Phusamphao and Adisak Suvittawat; data collection and analysis, Nantaphon Phusamphao; data interpretation, Nantaphon Phusamphao; writing-original draft preparation, Nantaphon Phusamphao; writing-review and editing, Adisak Suvittawat; supervision, Adisak Suvittawat; project administration, Nantaphon Phusamphao and Adisak Suvittawat. All authors have read and approved the version of the manuscript for publication.

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