RICE Journal
of Creative Entrepreneurship and Management

RICE

Rattanakosin International College of Creative Entrepreneurship, RMUTR

About Us

RJCM is an international journal for academics and scholars at the higher education level to communicate and share their viewpoints and academic work with fellow professionals in the areas of creative entrepreneurship and management as practiced in their fields of specializations in social sciences. Currently, it is classified as Tier 2 in Thai-Journal Citation Index (TCI).

RJCM publishes three numbers per volume annually and welcomes contributors to submit their manuscript in January, May, and September of each year. We accept both academic and research papers in social sciences from contributors. The papers are double-blind three-peer-reviewed in each volume and published online-plus-print thrice a year.

The length of the unformatted manuscript in WORD can be 15-25 pages in length including references. The contents of the manuscript should include (1) a title with the author's name, affiliate, email address and telephone contact, (2) an abstract of 150 words with 3-5 keywords, (3) an introduction, (4) a rationale and background of the study, (5) research objectives, (6) research methodology, (7) data collection procedure, (8) data analysis, (9) results and discussion, (10) research limitation (if any), (11) conclusion, (12) acknowledgement(s) (if any), (13) the author's biography of about 50-80 words, 14) references, and (15) an appendix or appendices (if any).

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Note from the Editors of *RJCM* Volume 4 Number 3

Dear *RJCM* Readers,

You are now with our third issue in Year 4 of *RICE Journal of Creative Entrepreneurship and Management* (*RJCM*). This issue contains six articles in the areas of digital marketing, marketing communication, digital competencies learning model, quality system management, and Chinese media culture.

In this issue, we have two papers on digital marketing: *"The Influence of Interactive Marketing of Webcast Platform on Users' Purchase Intention Mediated by Perceived Information Quality"* (Article 1), and *"The Impact of Short Video User Loyalty on Marketing: A Case Study of Douyin"* (Article 3). There are two papers on marketing communication, and digital competencies learning model: *"Relationship between Integrated Marketing Communication Strategy and Cosmetics Business Performance in Thailand"* (Article 4), and *"Development of Learning Model to Enhance the Elderly's Digital Competencies of Media and Information"* (Article 2). One paper is on quality system management-- *"The Effects of Quality System Management on Creating the Basic Education Schools as Innovative Organizations in Nonthaburi Province"* (Article 5), and another on Chinese media culture-- *"The Scope and Limitations of Contemporary Chinese Media Culture Research: A Visualization Analysis Utilizing CiteSpace"* (Article 6). As for *Sharing Professional Viewpoint*, the author shared her concern over the threat of short videos: *"Short Videos Could be a Threat to Users."* These papers report interesting findings and current issues in the areas under study.

Our paper contributors in the third issue of 2023 are researchers from six higher education institutions in the central and northeastern provinces of Thailand: (1) Assumption University of Thailand, (2) King Mongkut's University of Technology North Bangkok, (3) Metharath University, (4) Nakhonphanom University, (5) Rangsit University, and (6) Rattanakosin International College of Creative Entrepreneurship (RICE), Rajamangala University of Technology Rattanakosin (RMUTR).

The editors-in-chief hope that the research findings and current developments reported in these papers will be interesting to both researchers and practitioners in similar fields of study. The *RJCM* editorial team and the authors would appreciate our readers' comments about these articles, if possible. We always welcome contributions from those who may wish to be part of our *RJCM* network.

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Dear *RJCM* Readers,

We are now in the post period of the Covid-19 pandemic that has impacted the ways we lead our academic lives in teaching, learning and doing research. Scholars need to adjust themselves in communicating with their peers, colleagues, counterparts and students under their teaching responsibilities. Some have turned to a hybrid mode in working by combining an electronic platform of their choice with human contacts as seen fit in their context. Such adjustments have led to studies on new models of teaching-learning as well as innovative means to share ideas and conference agendas via electronic means currently available for communication. We have also witnessed the greater role of AI in the paths of work and life worldwide. The direction we are heading to with AI as our smart assistant has raised more and more public agitation with the ethical use of human-like devices. This is a matter of individual as well as global concerns over the futuristic applications of the information technology humans have claimed to master for the great good of mankind.

As new innovative developments evolving out of the huge circle of technology applications, scholars and researchers have selected their channels of communication, conscientiously work toward their academic goals on adding new knowledge and research findings to the existing body of knowledge in their areas of specialization. In this regard, the articles contributed to *RICE Journal of Creative Entrepreneurship and Management* after the post-pandemic time are always of great value to the academic communities at both the local and international levels.

I feel much obliged to all the authors for contributing the betterment of their work to academic communities. Your research in different fields of management and creative entrepreneurship certainly helps reexamine all current issues under study for sharing and bridging our academic interest in the years to come.

The Influence of Interactive Marketing of Webcast Platform on Users' Purchase Intention Mediated by Perceived Information Quality

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Abstract

As an important feature of network broadcast, interactive marketing is different from traditional e-commerce. How to make effective use of this interactive function has become the focus of network broadcast enterprises. Under the current situation and environment of live streaming, digital marketing research tends to investigate the impact of live streaming platform on users' purchase intention. In such a scenario, the researcher investigated the influence of network broadcast interactive marketing on users' purchase intention and preferences. The literature covered network broadcast platform, interactive marketing, user purchase intention, perceived information quality and other related aspects, and the logical relationship between organizational variables. A theoretical model of perceived information quality as a mediating variable was proposed. The data were gathered via online data collection from 437 voluntary participants via a constructed questionnaire, and analyzed by SPSS 24.0 and Amos 24.0. The findings pointed to interactive marketing having a positive impact on users' purchase Intention mediated by perceived information quality. Suggestions were made to (i) increase the purchase motivation of users through the effective interaction of anchors on the network broadcast platform, and (ii) sensitize interactive marketing on network broadcast platforms to users' specific needs for products and services.

Keywords: *Network live broadcast platform, interactive marketing, online purchase intention, perceived information quality*

1. Introduction

1.1 Rationale of the Study

Due to the rapid development of China's social economy and network information technology, as well as the continuous improvement of network bandwidth and video technology, webcast as a new type of broadcast media has become popular among digital users. According to the 49th China Internet Development Statistical Report released by the

China Internet Network Information Center (CNNIC), the information stored by Chinese netizens has reached more than 1.3 million. The growth rate in December 2020 was 42.96 million. The number of online shoppers in China has increased from 51.6 million in December 2020 to 84.2 million, accounting for 81.6% of the total number of Internet users. Among them, there were 467 million e-commerce live broadcast users, accounting for 44.9% of the total number of Internet users. Online sales with an active role, build a new development model, and become an important link connecting production and consumption--online and offline, urban and rural areas, and China and the world. Webcasting is becoming one of the consumption habits of many netizens, and shopping on the webcasting platform has become a new standard of consumption for many netizens (Ang, Wei & Anaza, 2018).

This research aimed to extend previous investigations on users' purchase intentions in the context of webcasting platforms. As for online interactive marketing, the researcher added some new variables derived from real-life observations and relevant literature on the perceived intention of interactive marketing users on the network. The researcher explored and coordinated the intermediary variables of perceived information quality of interactive marketing on webcast platforms. The purpose was to identify the impact of interactive marketing via webcast platforms on users' path of purchase intention.

With the rapid development of the Internet, the explosive development of the webcast mode has emerged. As known, the webcasting influence of stars on users' purchase intention regarding the real quality of livestreaming products has drawn a lot of attention from the public (Ajzen, 1991; Hausman & Siekpe, 2003; Li, Zhang, Xu, Lan, Shi, Liang & Chen, 2018). Insufficient regulatory policies, and much complicated webcasting environment definitely affect users' willingness to purchase online products and services.

1.2 Purpose and Method

In such a scenario as given in the rationale of the study, the researcher therefore wanted to obtain empirical data on users' purchase intention, and the network environment that affects their purchase intention to understand how live broadcast could prompt users to buy and increase transactional value accordingly. A theoretical model of perceived information quality as a mediating variable was proposed. The researcher used a constructed questionnaire validated by five marketing experts to collect needed data online from 437 voluntary participants. The obtained data were analyzed by SPSS 24.0 and Amos 24.0.

2. Literature Review

Through literature review on webcasting, interactive marketing, online purchase intention, and perceived information quality, the researcher was able to identify the current status of webcasting on major platforms. It should be noted that theoretical research on

webcast platforms is still in a rather initial stage, especially with interactive marketing as a major advantage of webcasting. Web anchors introduce products to users through live video, and adjust the content of the live broadcast in a timely manner based on user feedback (Sjöblom & Hamari, 2017; Chen & Lin, 2018). Although the role of marketing interaction cannot be ignored, there are still few studies on the topic of marketing interaction in webcasting (Ang, Wei & Anaza, 2018), and marketing interaction is one of the characteristics of webcasting. There are also some studies on specific situational factors of webcasting (Vilnai-Yavetz & Gilbo, 2010; Söderlund, 2016). The impact of different types of interactive marketing on users' purchase intentions and perceived information quality also serve as the background of this research.

3. Research Hypotheses

In this study, the researcher put the research objectives as the expected target findings in four sets of hypotheses. In so doing, the relevant earlier studies served as foundations for the given hypotheses on the influence of interactive marketing of webcast platform on users' purchase intention mediated by perceived information quality. The researcher positioned anchor-interactive marketing in four aspects: the anchor's charm, the anchor's popularity, promotional activities, and interactive atmosphere. As known from most earlier studies, the live-streamer personal charm will gradually get users' newcomer priority and good perception.

Ahreum & Tanner (2012) asserted that celebrities have a significant impact on users' confidence. In most live broadcast events, interactive promotions often appear in a series of promotional activities of brands and enterprises, so to a certain extent, it can be confirmed that the promotional activities have been greatly improved.

Ang, Wei & Anaza (2018) explained that product price management can effectively increase consumer confidence in online shopping. In observing marketing strategies used by leading webcasting platforms to attract users, the researcher found that active activities and users' trust are particularly significant. The interaction in the virtual network is human interaction, which can be divided into human-computer interaction and interaction with document information. On the online live broadcast platform, users achieve good interpersonal interaction through social forms, such as acquaintance recommendation, order collection, and support for price negotiation. At the same time, users can exchange, transmit and share text and other information. Through the communication with the feedback system of the photo video platform (Sjöblom & Hamari, 2017), the interaction occurs between human and computer information and the interaction between human and computer are realized (Sjöblom & Hamari, 2017). Based on frequent social interaction and emotional connection, the platform can generate an interactive atmosphere.

The researcher of the present study assumed that through (i) anchor interactive marketing, (ii) interactive atmosphere, (iii) promotional activities and (iv) other related

activities, *the quality of users' cognitive information* and *the quality of information* will be improved to a certain extent.   On such assumptions, the researcher proposed the first set of hypotheses:

H1: Interactive marketing plays a positive role in promoting perceived information quality.

H1a: The charm of the anchor plays a positive role in promoting the perceived information quality.

H1b: The anchor's popularity plays a positive role in promoting the perceived information quality.

H1c: Promotional activities play a positive role in promoting perceived information quality.

H1d: The interactive atmosphere plays a positive role in promoting the perceived information quality.

Li, Zhang, Xu, Lan, Shi, Liang & Chen (2018) studied female consumers as the research object, and found that the popularity of online opinion leaders has a significant positive impact on their purchase intention. When users see their favorite stars in the live broadcast, they are more likely to have the idea of buying, which will drive the growth of product sales via *interactive marketing* (Dodds, Monroe & Grewal, 1991; Ahreum & Tanner, 2012; Agrawal & Kamakura, 2015).

From these earlier studies, the researcher considered the interactive marketing effect of live broadcast directly on users' purchasing behavior, and product sales. With such assumptions, the researcher proposed the second set of hypotheses:

H2: Interactive marketing plays a positive role in promoting users' willingness to purchase.

H2a: The anchor's charm plays a positive role in promoting users' willingness to purchase.

H2b: The popularity of the anchor plays a positive role in promoting the user's purchase intention.

H2c: Promotional activities play a positive role in promoting users' willingness to purchase.

H2d: The interactive atmosphere plays a positive role in promoting users' willingness to purchase.

Hausman & Siekpe (2003) identified major variables with a significant impact on consumer purchases, and tested their sensitivity, utility and reliability effects. Price priority affects purchase intention, established strengths, and risks; reputation also affects purchase intention. Based on such findings, the researcher would assume that the stronger users' opinion on the quality of product information, the more willing they are to purchase the product. On such assumptions, the researcher proposed the third set of hypotheses:

H3: Perceived information quality will play a positive role in promoting the user's purchase intention.

H3a: Perceived trust will play a positive role in promoting the users' willingness to buy.

H3b: User perceived satisfaction will have a positive impact on user purchase intention.

Li, Zhang, Xu, Lan, Shi, Liang & Chen (2018) highlighted the relationship between interaction and trust. Perceived information quality is part of this relationship where each level of interaction first affects the information quality experienced by consumers and then enhances their buying confidence.

Chen & Lin (2018) asserted that the visibility, interactivity, reliability and entertainment of direct information transmissions will not only encourage consumers' purchases, but also have a positive impact on their perceived information quality.

On this basis, perceived information quality plays a mediating role between interactive marketing and users' purchase intention. The researcher therefore proposed the fourth set of hypotheses:

H4: The quality of perceived information plays a mediating role between interactive marketing and users' purchase intention.

H4a: Perceived trust plays a mediating role between user's interactive marketing and users' purchase intention.

H4b: Perceived satisfaction plays an intermediary role between the anchor's interactive marketing and users' purchase intention.

4. Regression Analysis Test

4.1 Regression Test between Interactive Marketing and Perceived Information Quality

The overall result indicated that there were significant influences among the anchor's charm, the anchor's popularity, promotional activities, interactive atmosphere and perceived information quality.

As seen in Table 1, the F value of Model 1 is 2.058 (p>0.05), which indicates that there is no significant relationship between background variables and perceived information quality. Interactive marketing (the anchor's charm, the anchor's popularity, promotional activities, and interactive atmosphere) is a supplement to the above factors, and verifies their relationship with perceived information quality. The results revealed the coefficients of anchor charm, anchor popularity, promotional activities, and interactive atmosphere at 0.133 (p<0.01), 0.165 (p<0.01), 0.212 (p<0.001), and 0.291 (p<0.001), indicating that the anchor's charm, the anchor's popularity, promotional activities, interactive atmosphere and perceived information quality have a significant impact. That is to say, the higher the results of the anchor's charm, the anchor's popularity, promotional

activities, and interactive atmosphere, the higher the quality of relative user-perceived information. It can be seen from Model 3 that interactive marketing has a significant impact on perceived information quality (=0.602, p>0. 001).

Overall, interactive marketing has a positive impact on perceived information quality. In other words, the higher the anchor's marketing interaction, the higher the perceived quality of information. The combined results of Model 2 and Model 3 demonstrate Hypothesis H1: Interactive marketing plays a positive role in promoting perceived information quality; H1a: The charm of the anchor plays a positive role in promoting the perceived information quality; H1b: The anchor's popularity plays a positive role in promoting the perceived information quality; H1c: Promotional activities play a positive role in promoting perceived information quality; and H1d: The interactive atmosphere plays a positive role in promoting the perceived information quality.

Table 1: Regression Results between Interactive Marketing and Perceived Information Quality

Variable	Model 1		Model 2		Model 3	
	β	T	β	T	β	T
Gender	0.042	0.869	0.080	2.130*	0.073	1.906
Age	0.050	1.060	0.049	1.304	0.040	1.047
Education level	0.113	2.332*	0.089	2.357*	0.094	2.451*
Marital status	0.029	0.611	0.000	-0.001	0.004	0.113
Monthly income	0.054	1.112	0.006	0.155	0.018	0.464
Anchor Charm			0.133	3.167**		
Anchor popularity			0.165	3.484**		
Promotional Activities			0.212	4.358***		
Interactive atmosphere			0.291	6.244***		
Interactive Marketing					0.602	15.832***
R²	0.023		0.409		0.383	
Adj R²	0.012		0.397		0.374	
F	2.058		32.874***		44.486***	

Note: * means significant p<0.05, ** means significant p<0.01, *** means significant p<0.001
Source: Compiled by the author

4.2 Regression Test between Interactive Marketing and Users' Purchase Intention

Table 2 shows Model 3 with the F value at 1.243 (p>0.05). It shows that the model is not practical, and there is no significant relationship between background variables and users' purchase intention. Model 3 adds the secondary latitude of interactive marketing (the anchor's charm, the anchor's popularity, promotional activities, and interactive atmosphere), and verifies the relationship with users' purchase intention. The results show that the anchor's charm, the anchor's popularity, promotional activities, and interactive atmosphere coefficients are 0.092 (p>0.05), 0.138 (p<0.05), 0.256 (p<0.001), and 0.157

(p<0.01), respectively. These indicate that the anchor's charm and popularity, promotional activities, interactive atmosphere and users' willingness to purchase are all greatly affected. That is, the better the popularity of the anchor, the higher degree of promotional activities; and the effect of the interactive atmosphere, the higher the purchase intention of the relative users. However, the anchor's charm and users' willingness to purchase are not significant. The anchor's charm can only attract the attention of users; and the effect of improving their willingness to purchase is not exact.

Model 6 shows interactive marketing with a significant impact on users' purchase intention (β=0.486, p<0.001). Overall, interactive marketing has a positive impact on users' preference. In other words, the greater the marketing interaction of the anchor, the higher users' willingness to purchase. The combined Model 5 and Model 6 appear to support the hypothesis: "H2: Interactive marketing plays a positive role in promoting users' willingness to purchase; H2b: The popularity of the anchor plays a positive role in promoting users' willingness to purchase; H2c: Promotional activities play a positive role in promoting users' willingness to purchase; H2d: The interactive atmosphere plays a positive role in promoting users' willingness to purchase." However, the hypothesis: "H2a: The anchor's charm plays a positive role in promoting users' purchase intention" is not clearly supported.

Table 2: Regression Results between 17 Interactive Marketing and Users' Purchase Intention

Variable	Model 4		Model 5		Model 6	
	β	T	β	T	β	T
Gender	0.038	0.798	0.071	1.697	0.064	1.508
Age	-0.015	-0.318	-0.020	-0.482	-0.024	-0.571
Education level	0.066	1.359	0.055	1.308	0.051	1.203
Marital status	0.054	1.125	0.027	0.660	0.034	0.807
Monthly income	0.062	1.291	0.026	0.628	0.034	0.794
Anchor Charm			0.092	1.981		
Anchor popularity			0.138	2.608*		
Promotional Activities			0.256	4.734***		
Interactive atmosphere			0.157	3.025**		
Interactive Marketing					0.486	11.569***
R²	0.014		0.269		0.248	
Adj R²	0.003		0.254		0.238	
F	1.243		17.464***		23.663***	

Note: * means significant P<0.05, ** means significant P<0.01, *** means significant P<0.001

Source: Compiled by the author

4.3 Regression Test between Perceived Information Quality and Users' Purchase Intention

Table 3 shows Model 7 on the relationship between the second-level quality of perceived information (perceived trust, perceived satisfaction) and users' purchase intention. The results indicate that the perceived trust and perceived satisfaction values are 0.495 ($p<0.001$), 0.243 ($p<0.01$), respectively. The interpretation was on the impact of perceived trust, perceived satisfaction and user's purchase intention; the higher the value of perceived trust and perceived satisfaction, the higher the relative purchase degree of users.

Model 8 shows the quality of perceived information having a greater impact on users' purchase intention (=0.461, $p<0.001$)--meaning the higher the quality of information perceived by users, the higher their willingness to purchase. When combining the results of Model 7 and Model 8, the researcher was able to conclude the hypotheses: "H3: Perceived information quality will play a positive role in promoting users' purchase intention; H3a: Perceived trust will play a positive role in promoting users' willing to buy; and H3b: Users' perceived satisfaction will have a positive impact on user purchase intention."

Table 3: Regression Results between Perceived Information Quality and Users' Purchase Intention

Variable	Model 7		Model 8	
	β	T	β	T
Gender	0.010	0.231	0.019	0.449
Age	-0.042	-1.025	-0.038	-0.903
Education level	0.020	0.488	0.014	0.322
Marital status	0.041	0.989	0.040	0.949
Monthly income	0.031	0.747	0.038	0.876
Perceived Trust	0.495	3.196***		
Perceived satisfaction	0.243	2.887**		
Perceived information quality			0.461	10.714***
R²	0.278		0.222	
Adj R²	0.266		0.211	
F	23.604***		20.442***	

Note: * means significant $P<0.05$, ** means significant $P<0.01$, *** means significant $P<0.001$
Source: Compiled by the author

4.4 Testing the Mediating Role of Perceived Information Quality and Users' Willingness to Buy

In order to control the transmission effect of perceptual information, the relationship between independent variables and dependent variables must be verified through statistical analysis, as well as the significance of the c coefficient must be verified. Then the relationship between the independent variable and the intermediate variable is constructed, and the significance of the coefficient a is verified. Finally, the significance of the

coefficients is verified, and the relationship between the independent variable, vector variable, and dependent variable is established.

Test of the Mediating Role of Perceived Trust

According to the results of Model 9, the influence coefficient of interactive marketing on user purchase intention is 0.486, with the significant test results (t=11.569, p<0.001), indicating that the coefficient c is significant. In Model 10, the influence coefficient of interactive marketing on users' purchase intention is 0.691, (t=20.003, p<0.001), indicating that the coefficient a is significant. As for Model 11 with an added intermediary variable (perceived trust) on the basis of Model 9, *interactive marketing* still has a significant impact on purchase intention, and proves that the coefficient c′ is significant (=0.248, p<0.001). This result demonstrates that the coefficient b (=sx0.344, p<0.001) also has a significant and partial mediating effect. Therefore, the interactive effect of interactive marketing on users' purchase intention is not fully realized through the intermediary variable (perceived trust). The existing studies have shown that interactive marketing can directly affect users' purchase intention. The ratio of the mediating effect to the total effect is: Effect=ab/c=0.691×0.344/0.486=48.910%, with the mediating effect describing the variance of the dependent variable as Sqrt (0.297-0.238) = 24.290%. The final results indicate that *perceived trust* plays a mediating role between *interactive marketing* and *users' purchase intention*. With these results, the research hypothesis: "H4a: Perceived trust plays a mediating role between user's interactive marketing and purchase intention" is verified.

Table 4: Regression Results of the Mediation Test of Perceived Trust and Users' Willingness to Buy

Variable	Model 9 (Users' Willingness to Buy)		Model 10 (Perceived Trust)		Model 11 (Users' Willingness to Buy)	
	β	T	β	T	β	T
Gender	0.064	1.508	0.092	2.666	0.032	0.778
Age	-0.024	-0.571	0.039	1.125	-0.037	-0.925
Education level	0.051	1.203	0.061	1.747	0.030	0.736
Marital status	0.034	0.807	-0.004	-0.117	0.035	0.875
Monthly income	0.034	0.794	0.019	0.558	0.027	0.662
Interactive Marketing	0.486	11.569***	0.691	20.003***	0.248	4.430***
Perceived Trust					0.344	6.108***
R²	0.248		0.492		0.308	
Adj R²	0.238		0.485		0.297	
F	23.663***		69.394***		27.326***	

Note: * means significant P<0.05, ** means significant P<0.01, *** means significant P<0.001

Source: Compiled by the author

The Mediating Effect Test of Perceived Satisfaction

Further, through the results of Model 9, it can be seen that the impact of interactive marketing on users' purchase intention is 0.486, with significant test results (t=11.569, p<0.001), indicating that the coefficient c is significant. In Model 11, the impact of interactive marketing on users' purchase intention is 0.385, and the significance test result (t=8.690, p<0.001) shows that the coefficient a is significant. Model 11 with an added intermediary variable (perceived satisfaction) on the basis of Model 9, points to interactive marketing significantly affecting the purchase intention, and the coefficient c′ proved to be significant (=0.435, p<0.001). These results demonstrate that the coefficient b (=0.132, p<0.01) is also significant, indicating that there is a certain mediation effect. It can be seen that the intermediary effect of interactive marketing on users' purchase intention is not fully conveyed through the intermediary variable (perceived satisfaction). As seen in the result, interactive marketing has a direct impact on users' purchase intentions: Effect=ab/c=0.385×0.132/0.486=10.457%, meaning the mediating effect covers the variance variation of the dependent variable as Sqrt (0.251-0.238) = 11.402%. The final results show that perceived satisfaction partially measures the influence of interactive marketing and users' purchase intention. Such findings confirm the research hypothesis: "H4b: Perceived satisfaction plays an intermediary role between anchor-interactive marketing and users' purchase intention."

Table 5: Regression Results of the Mediation Test of 20 Variables of Perceived Satisfaction

Variable	Model 11 (Users' Willingness to Buy)		Model 12 (Perceived satisfaction)		Model 13 (Users' Willingness to Buy)	
	β	T	β	T	β	T
Gender	0.064	1.508	0.039	0.870	0.058	1.398
Age	-0.024	-0.571	0.031	0.709	-0.028	-0.675
Education level	0.051	1.203	0.101	2.261	0.038	0.891
Marital status	0.034	0.807	0.011	0.238	0.032	0.781
Monthly income	0.034	0.794	0.012	0.274	0.032	0.762
Interactive Marketing	0.486	11.569***	0.385	8.690***	0.435	9.639***
Perceived satisfaction					0.132	2.908**
R²	0.248		0.165		0.263	
Adj R²	0.238		0.153		0.251	
F	23.663***		14.126***		21.843***	

Note: * means significant P<0.05, ** means significant P<0.01, *** means significant P<0.001
Source: Compiled by the author

SEM Structural Equation Modeling

The researcher further examined the mechanism of the overall perceived information quality between interactive marketing and users' purchase intention. In this study, structural equation modeling was used for further analysis. In this paper, the role of control variables was described in detail through hierarchical regression analysis so that they were not introduced into the structure in order to maintain the parsimony of the model. In addition, the researcher adopted the method of content synthesis and took the average value of the combined items as the item score. According to the theoretical model designed in this paper, as shown in Figure 1, AMOS statistical software was used to construct an initial structural equation model of interactive marketing→perceived information quality→user purchase intention.

Figure 1: Schematic Diagram of the Initial Model Structure
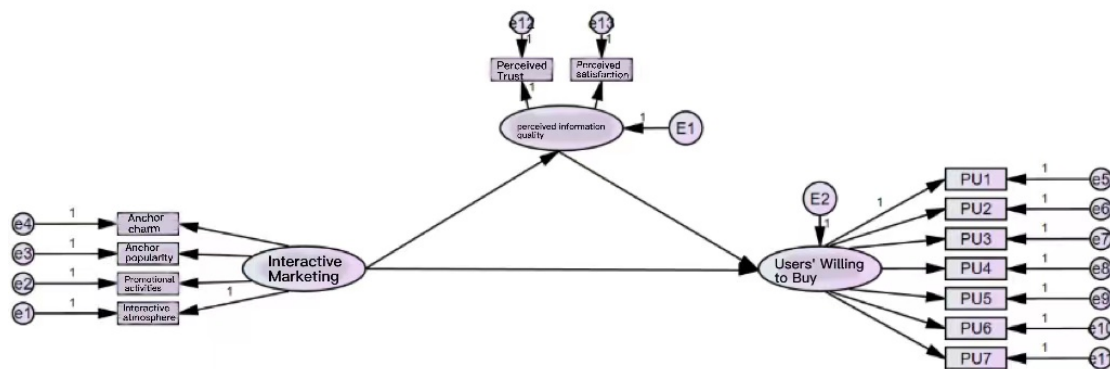
Source: Compiled by the author

After constructing the initial model, the researcher imported the data and executed the model as shown in Figure 2.

Figure 2: Schematic Diagram of Path Results of Structural Equation Modeling
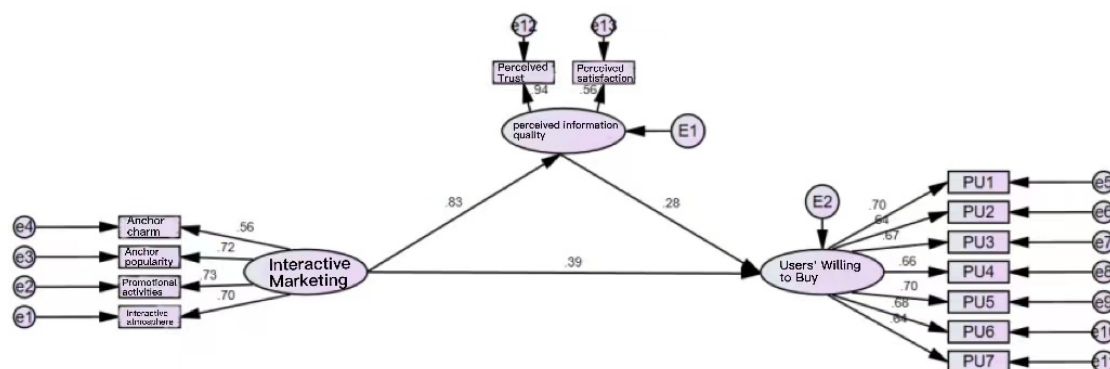
Source: Compiled by the author

In a structural equation model, the results of data validation in previous studies may not lead to appropriate conclusions. The fitness of the model has to be adjusted iteratively. According to the model fitting situation, the X^2/DF value is 2.023<3, and other fitting indexes GFI=0.958>0.9, RMSEA=0.048<0.08, NFI=0.941>0.9, IFI=0.969>0.9, CFI=0.969>0.9, indicate that the model fits. At the same time, according to the fitting results of the path coefficients, it can be known from the corresponding p-value results on different path coefficients. The path coefficients of interactive marketing→perceived information quality (β=0.829, p<0.001), interactive marketing → purchase intention (β=0.280, p<0.05), interactive marketing → purchase intention (β=0.386, p<0.01) are all significant.

Table 6: Regression Results of the Mediation Test of Perceived Trust

path			standardized coefficient	S.E.	C.R.	P
Perceived information quality	<---	Interactive Marketing	0.829	0.07-0	13.721	***
Users' Willing to Buy	<---	Perceived information quality	0.280	0.089	2.253	0.024
Users' Willing to Buy	<---	Interactive Marketing	0.386	0.104	3.047	0.002

Note: * means significant P<0.05, ** means significant P<0.01, *** means significant P<0.001;X^2=125.439,DF=62,GFI=0.958,RMSEA=0.048,NFI=0.941,IFI=0.969,CFI=0.969
Source: Compiled by the author

In addition, according to the effect decomposition, the perceived information quality plays a partial mediating role between interactive marketing and users' purchase intention, with an effect value of 0.338, accounting for 0.232/0.618=37.540% of the total effect value. Further, the establishment of its partial intermediary effect also shows the transmission role of perceived information quality between interactive marketing and users' purchase intention.

Table 7: Decomposition of Influence Effects among 22 Variables

Independent variable	Effect decomposition	Dependent variable	
		Perceived information quality	Users' Willingness to buy
Interactive Marketing	direct effect	0.829	0.386
	indirect effect	--	0.232
	total effect	0.829	0.618

Source: Compiled by the author

Hypothetical Results

In this section, the researcher used questionnaire data from 437 voluntary participants in testing the research hypotheses under study. First, the data collection method and sample characteristics were introduced, and the reliability and validity of the questionnaire were tested using SPSS and AMOS software. The obtained results show that the measurement model in this study carried a high degree of fit. Second, regression analysis was used to test the impact of interactive marketing on users' perceived information quality and purchase intention. The results revealed interactive marketing with a positive and significant impact on the quality of users' perceived information quality and purchase intention. Third, the mediating effect of cognitive information quality was verified by regression analysis and structural equation modeling. The results of hypothesis testing in this study are summarized in Table 8.

Table 8:   Summary of 23 Variables in Hypothesis Testing Results

Hypothesis number	Hypothetical content	Validation results
H1	Interactive marketing plays a positive role in promoting perceived information quality.	Established
H1a	The charm of the anchor plays a positive role in promoting the perceived information quality.	Established
H1b	The anchor's popularity plays a positive role in promoting the perceived information quality.	Established
H1c	Promotional activities play a positive role in promoting perceived information quality.	Established
H1d	The interactive atmosphere plays a positive role in promoting the perceived information quality.	Established
H2	Interactive marketing plays a positive role in promoting users' purchase intention.	Established
H2a	The anchor's charm plays a positive role in promoting users' purchase intention.	Not Established
H2b	The popularity of the anchor plays a positive role in promoting the user's purchase intention.	Established
H2c	Promotional activities play a positive role in promoting users' willingness to purchase.	Established
H2d	The interactive atmosphere plays a positive role in promoting the users' willingness to purchase.	Established
H3	Perceived information quality will play a positive role in promoting users' purchase intention.	Established
H3a	Perceived trust will play a positive role in promoting the users' willingness to buy.	Established

Hypothesis number	Hypothetical content	Validation results
H3b	Users' perceived satisfaction will have a positive impact on their purchase intention;	Established
H4	The quality of perceived information plays a mediating role between interactive marketing and users' purchase intention.	Established
H4a	Perceived trust plays a mediating role between users' interactive marketing and purchase intention.	Established
H4b	Perceived satisfaction plays an intermediary role between the anchor's interactive marketing and users' purchase intention.	Established

Source: Compiled by the author

5. Concluded Findings and Discussion

The researcher aimed to explore the variables that affect users' online shopping intentions in the context of webcasting, and identify the mechanism of webcasting's impact on users' online shopping intentions, so that enterprises can realize effective operations on webcasting platforms (Honeycutt, Flaherty & Benassi (1998). The researcher started with the impact of online live broadcast platforms on users' purchase intention, using the theoretical framework S-O-R to identify the main factors that affect users' purchase intention. A conceptual model of factors affecting users' online shopping intention based on webcast was initially constructed (Abdullah, Jayaraman, Bahri & Kamala, 2016). As for the explored variables, theoretical demonstrations were carried out, corresponding assumptions were established, and the existing measurement scales were combined within the research design. After the preliminary questionnaire was prepared and validated by ten experts in digital marketing, a test was performed on 437 valid data, and SPSS 24.0 statistical analysis tool was used for descriptive sampling statistics and reliability test, followed by AMOS24.0 software for verification analysis. Structural equation modeling finally yielded the following conclusions:

5.1 Interactive Marketing with a Positive Role in Promoting Perceived Information Quality

According to data analysis, interactive marketing has a positive effect on improving the quality of perceived information. The corresponding four dimensions, the anchor's charm, the anchor's popularity, promotional activities, interactive atmosphere, and perceived information quality all have a great influence on users' purchase intention (Teo, H. H. et al., 2003; Etemad-Sajadi, 2016). In other words, such dimensions lead to relatively high information quality perceived by users. The higher the interactivity of anchor-marketing, the higher the quality of information perceived by users. According to the

obtained results, the anchor's interaction has a certain and good guiding effect on users. The anchor serves as the core of the live broadcast, and also the center of interaction between the anchor and the live audience. Therefore, an anchor who is good at expressing himself/herself, has rich professional knowledge, and communicates sincerely can effectively improve users' perception of information, regarding the quality of the content (Woodruff, 1997; Kohler，et al., 2011). On the whole, the interactive marketing effect of the network anchor can directly promote the user's perception of the quality of information for purchasing products. This phenomenon is particularly important in the current delivery platform.

5.2 Variables in Interactive Marketing with a Positive Effect on Users' Purchase Intention

Interactive marketing has played an active role in promoting users' willingness to purchase (Alba & Hutchinson, 1987; Sang & Chen, 2010). Based on the analysis results, the anchor's popularity, promotional activities, interactive atmosphere, and users' willingness to purchase all have a great impact on interactive marketing. That is, the better the popularity of the anchor, the degree of promotional activities, and the effect of the interactive atmosphere, the higher the purchase intention of users (Teo et al., 2003). However, the anchor's charm shows that it can only attract the attention of users, but the effect of increasing their willingness to purchase is not necessarily the case. The higher the anchor's marketing interaction is, the higher the user's willingness to purchase (Morales, 2015; Bründl, Matt & Hess, 2017). In this present study, when consumers purchase products and watch live broadcasts, before making purchase decisions, they feel convinced with *marketing information* available in the interaction of live broadcasts regarding product prices, uses, and benefits (Flore, Jin & Kim, 1974; Eagly, Ashmore, Makhijani & Longo, 1991. This increases the likelihood of users making their purchase decision.

5.3 Perceived Information Quality with a Positive Effect on Users' Purchase Intention

The quality of perceived information has a positive impact on users' purchases, which in turn generates a great impact on trust, users' satisfaction, and their purchase intention. As seen in the obtained findings, the higher the purchase interest, the higher users' trust and satisfaction, and the higher the quality of the information they have received (Morrison, D. G., 1979; Michell, John & James, 1998). The study reveals that improving the quality of information will help differentiate the quality of competing products, improve purchasing trends, retain customers, and increase product competitiveness. If it is difficult for customers to recognize the true quality of the product, the anchor can take measures to increase online customers' awareness of product quality, improve product efficiency, and stimulate purchasing opportunities (Etemad-Sajadi, 2016).

5.4 Mediating Role of Perceived Information Quality between Interactive Marketing and Users' Purchase Intention

Perceived information quality plays a mediating role between interactive marketing and purchase intention. This phenomenon shows that users' interaction with the anchor's persuasion improves product quality perception, which further promotes users' purchase and disposal propensity (Eagly & Chaiken, 1984; Mullet & Karson, 1985). This present study argues for the first two premises of online consumers' purchase intention, namely, perceived quality and interaction effect, are in line with consumers' income perception and marketing atmosphere (Mehrabian & Russell, 1974; Ajzen & Driver, 1992). Although they are both factors that consumers consider in their purchase decisions, treating one of them unilaterally is not enough to directly lead to consumers' purchase intentions. Consumers will consider impulsive outcomes when making purchase decisions, and the consumer's balance of gains and losses (perceived value) will directly affect consumers' purchase intentions. As such, *interaction* is *perceived quality* as an indirect warning, which affects purchase intention as a *consumer's behavior* by affecting the perceived value (Kohler et al, 2011; Bartlett & Desteno, 2016).

Overall, such research findings can shed light on the operations of interactive marketing of webcast platforms on users' purchase intention mediated by perceived information quality, and thus lead to form appropriate marketing strategies on how to attract online consumers effectively.

6. Suggestions

Based on the obtained findings, the researcher would like to suggest the following:

On the network marketing platform, interactive marketing requires enterprises to actively understand user needs, and provide products and services accordingly. In order to truly realize user-centered production, users must be attracted to spend time on live webcast platforms. The user's experience on the platform is vitally important in being provided with the high-quality interactive platform to prompt purchasing behavior.

The enterprise should consider ease in using webcast platforms to support users to find the needed product information quickly and recognize the features of the platform with least difficulty. The enterprise needs to keep in touch with users, build trust within the webcast time agreed with users, and strictly protect users' information with thorough digital security measures. Enterprises need to respond without delay to users' feedback and complaints. Customer service representatives on mobile platforms should be trained to interact with users well in providing good and impressive service experience.

When conducting interactive marketing on the live webcast platform, enterprises must provide users with preferential prices and use the live webcast platform to achieve user experience with minimal workload. Enterprises need to use short online marketing channels to keep more customers than those in physical stores, by saving intermediary links,

reducing product costs, and lowering prices. Each enterprise needs to attract online shoppers by providing a simple, accurate and clear platform on mobile applications using a real-time online delivery platform.

As for future research, those scholars in the area of interactive marketing may consider investigating the current issues on the consumer's side, particularly how online shoppers react to specific online marketing strategies, the webcasting platform's role in maintaining a user-centered service attitude in the dialogue, and incentive strategies for users' satisfaction. Interactive time management on webcast marketing as well as the effect of psychological distance on online shoppers can be pursued in order to design/ provide interactive links during the live broadcast to engage consumers in live activities. All of these are for enterprises concerned to guide the proper direction of effective digital marketing via their live webcast for online customers.

7. The Author

Changyi An is a graduate of the Master of Business Administration Program, International Chinese College, Rangsit University, Pathum Thani, Thailand. Her current research interest lies in the areas of business entrepreneurship, digital marketing, the use of webcast platforms, users' purchase intention and perceived information quality.

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Development of Learning Model to Enhance the Elderly's Digital Competencies of Media and Information

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Abstract

The purposes of this study were to (1) synthesize the digital competencies of media and information for the elderly, (2) develop a learning model to enhance their digital competencies, and (3) investigate the results of the developed learning model as experienced by the elderly participants. The voluntary participants were 30 residents of Hua Hin District, Prachuap Khiri Khan Province, Thailand. The results indicated that the digital competencies of the elderly consisted of main purposes and major roles in which there were 4 functions of 9 competency units and 18 sub-units of the identified competencies. The developed learning model to enhance the digital competencies of the elderly contained 5 elements: (i) the defining of competency indicators, (ii) contents, (iii) teaching method, (iv) instructional media, and (v) evaluation. There were 9 learning modules developed by the researchers using the development method of competency-based training curriculum. The efficiencies of the developed learning modules were 83.33/82.56, computed by using the KW #2 method of efficiency validation. For the evaluation result of the developed learning model indicated that 25 of 30 persons passed the training criteria. The obtained chi-square statistic revealed no significant difference between the number of *pass* persons and that of the non-pass persons at the .05 level. The developed learning model could be confidently recommended to enhance the digital competencies of media and information for the elderly in similar contexts.

Keywords: Learning model, media and information digital competency, elderly competency-based curriculum

1. Background and Research Viability

The age structure of the Thai population has shifted dramatically in the past half century to the elderly of ages 60 and over in 1970 from 1.7 million people, or 4.9 percent of the total population, to 12.0 million or 18.1 percent of the total population 0f 66.5 million in 2020. Thailand was expected to be a "fully aging society" by the year 2022, which means that Thailand has taken time 17 years in becoming a fully-fledged aging society (Foundation of the Thai Gerontology Research and Development Institute, 2021).

As known, the use of social media to provide health information for older adults has been part of the information technology strategies among the government and private sectors as well as relevant community agencies related to health care services in support of living standards of the elderly and their caregivers. Some researchers paid attention to the urgent need for social media literacy for the elderly in Thailand. Ketsuwan (2018) pointed out that messengers and communicators need necessary skills for media literacy in terms of content accessibility skills as well as creative skills at work. Since participation, analysis and content evaluation are required in the use of social media, it is a must that the elderly group be trained in acquiring social media literacy to be able to function on the social media platforms of their choice. Yaree & Sikeaw (2019) identified the guidelines for the use of social media by the relevant agencies in encouraging the elderly to access needed health information via social media easily and widely in all regions of the country.

As for the Media and Information Literacy (MIL), its emphasis is on the ability to access *evaluate/understand* and the *use/creation* of information media in a variety of formats in terms of both effectiveness and criticism. Lee (2015) elaborated that it is not only dealing with content in the media but also all kinds of information media and messages from different sources, such as the internet, social media, e-libraries, virtual museums, and all other channels of communication.

The Thai government has continuously encouraged the elderly to be one of the driving forces in the country by transferring wisdom and experience to help create a balanced society of different generations. The development of information technology and creative media is also geared toward the senior groups to achieve a digital society for all people (Office of the Vocational Education Commission, 2019). It is important to promote public media freedom along with social media accountability measures. The Thai government also promotes the role of relevant organizations in educating the elderly on the use of media technology in accordance with safety and legal standards as well as awareness of other media users. The digital world and various technologies are vital to the elderly in keeping pace with the world in search of vast information. When Thailand has completely stepped into an aging society, many products will aim at facilitating the elderly's lifestyle and living conditions. In this regard, senior citizens need to learn and enhance their competencies in media literacy and digital technology to be able to live well, share information, and contribute their dues in the modern society.

2. Research Assumption

The research assumption was that the group of the elderly under study was able to pass the specified criteria of digital literacy after their training on enhancing media and information literacy competency via the developed learning model.

3. Scope of Research

This research had 30 voluntary elderly people ages 60-75 years in Hua Hin Municipality, Hua Hin District, Prachuap Khiri Khan Province.

The independent variables were learning styles for enhancing media and information literacy competencies for the elderly.

The dependent variable was the performance of the elderly in media and information literacy on the developed learning model.

The content used in the learning model to enhance competencies in media and information literacy for the elderly included:

1. Media access and safety in using digital technology
2. Analysis of media and digital technology
3. Creation and application of media in digital technology
4. Assessment of media in digital technology

4. Research Objectives

The purposes of this study were to:

(1) synthesize the digital competencies of media and information for the elderly,

(2) develop a learning model to enhance their digital competencies, and

(3) investigate the results of the developed learning model as experienced by the elderly participants.

5. Research Methodology.

The researchers studied the concept and relevant information on competencies in digital technology, and then analyzed and synthesized the roles, duties and essential competencies for the elderly. After that, the researchers developed a process-oriented learning model to enhance users' competencies on media and information literacy. The researchers used the synthesized content and performance in four phases as follows:

Phase 1: Synthesis of media and information literacy competencies for the elderly. The researchers used media, information and digital literacy indicators at the personal level to promote democratic citizenship prescribed by the Children and Youth Media Institute as a model content for training competencies in media and information literacy for the elderly.

Phase 2: Development of a learning model to enhance competencies in media and information literacy for the elderly.

Phase 3: Development of a competency-based training curriculum.

Phase 4: Training and evaluation of media and information literacy capacity building for the elderly.

Research Tools

Phases 1-3: Use an assessment form to analyze performance development of learning styles and the development of a competency-based training curriculum on media and information literacy for the elderly. The researchers developed an assessment form and an evaluation form on a 5-level scale with the following meanings after Siljaru (2012).

The average score 4.51-5.00 means most agree.
The average score 3.51-4.50 means strongly agree.
The average score 2.51-3.50 means moderately agree.
The average score 1.51-2.50 means less agree.
The average score 1.00-1.50 means least agree.

Phase 4: Collect data with the competency assessment form on enhancing media and information literacy competency, and the media and information literacy training tests for the elderly.

6. Data Collection and Data Analysis

Phases 1-3: The researchers collected score data from the competency assessment form regarding learning styles and the developed competency-based training curriculum on media and information literacy for the elderly. These tools were content-validated by ten experts in digital competencies. The obtained data were analyzed for mean and the standard deviation.

Phase 4: The researchers collected data from the competency assessment form and the competency test of the trainees to obtain the efficiency value as KW #2 indicating the *pass* performance criteria (Whattananarong, 2012, 2017). As for the effectiveness of the developed teaching package, the score should not be less than 70/80 or KW #2 ≥ 70/80 to be considered effective. The number of *pass* trainees was compared with the total number of trainees by chi-square statistics.

7. Research Results

The Synthesis of Media and Information Literacy Competencies for the Elderly

The elderly's media and information literacy competencies were assessed by ten experts. The components of the function diagram and performance list are shown in Tables 1-4. These components were meant to develop the potential of the elderly to be literate in information media and digital technology.

Main Role: Understanding, Accessing and Safe Exposure to Media
Main Function: A. Access to Media and Use of Digital Technology
                B. Media Analysis and Digital Technology
                C. Creation and Application of Media and Digital Technology
                D. Assessment of Media and Digital Technology

Table 1: Main Functions A: Access to Media and Use of Digital Technology

Unit of Competencies	Element of Competencies
A1 Understand roles and responsibilities and use digital media and technology safely.	A11 Describe the role and functions of the media. and digital technology.
	A12 Classify and compare media properties and digital technology.
	A13 Explain the laws related to the use of media. and digital technology.
A2 Access media and use a wide range of media and digital technology.	A21 Access and use a variety of information. and in line with users' own needs.
	A22 Transmit and disseminate information to others through media and digital technology correctly and safely.

Table 2: Main Functions B: Media Analysis and Digital Technology

Unit of Competencies	Element of Competencies
B1 Know and understand the structure of the media industry.	B11 describe the structure of the media industry.
B2 Analyze media differences.	B21 Able to analyze sources of media content and information.
	B22 Explain and compare objectives of content and information media.
B3. Analyze the construction of the media. and the connotation contained in the media content.	B31 Analyze the construction of the media.
	B32 Analyze connotation contained in media and information.

Table 3: Main Functions C: Creation and Application of Media and Digital Technology

Unit of Competencies	Element of Competencies
C1 Use media creatively and extend knowledge for use.	C11 Create ethical information and responsible and respect differences of opinion.
	C12 Use digital technology to creatively collaborate with people of both the same and different ages.
	C13 Use media and digital technology to seek knowledge to build upon existing knowledge and experiences.
C2 Engage in communication to create change.	C21 Participate in the selection of information media and digital technology according to their own potential and make changes that benefit individuals, communities and society.

Table 4: Main Functions D: Assessment of Media and Digital Technology

Unit of Competencies	Element of Competencies
C1 Assess the value and credibility of the media.	C11 Identify and evaluate good or bad information. useful or not useful and is it valuable or not valuable appropriate or inappropriate.
	C12 Check sources and accuracy of digital information.
	C13 Explain factors and elements that affect the credibility of media.
C2 Beware of the impact of disseminating information media on oneself, others and society.	C21 Assess risks and threats from the dissemination of information through media and digital technology.

The Development of a Learning Model to Enhance Media and Information Literacy Competencies for the Elderly

The researchers used the competency-based training framework as a guideline for developing the learning model. Ten experts in digital competencies content-validated the competency-based training model containing:

Element 1: Performance indicators of the elderly in using media and information

Element 2: Content enabling the performance contained in the indicators in Element 1

Element 3: Teaching methods appropriate for the elderly and consistent with the content

Element 4: Teaching materials suitable for the content for the elderly

Element 5: Evaluation of competency performance by performance indicators

Figure 1: Competency-Based Training Model on Media and Information Literacy for the Elderly
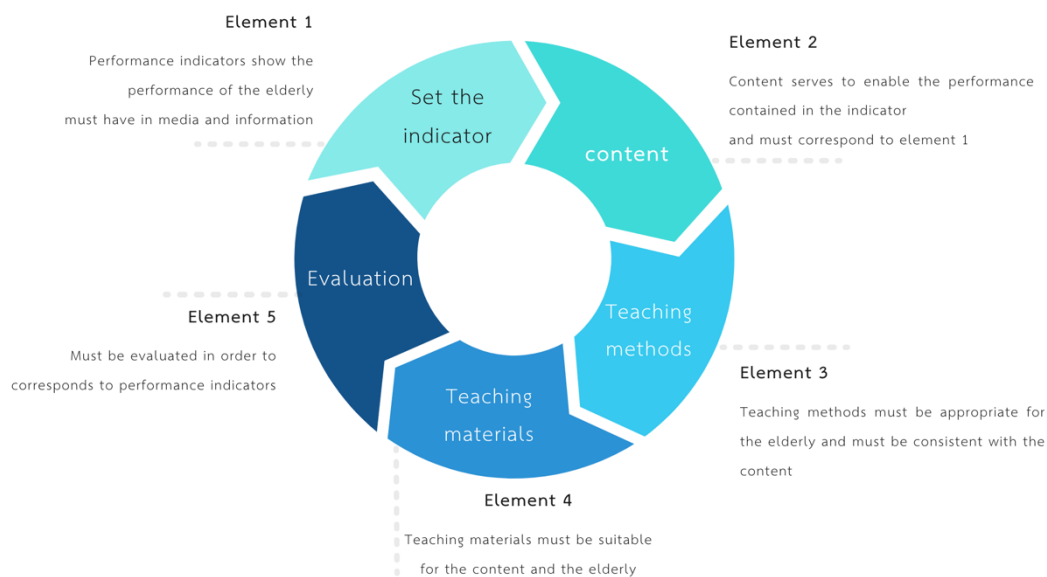
Training and Evaluation of the Elderly's Media and Information Literacy Competencies

The efficiency of training for the elderly's media and information literacy competencies is reported in Table 5. The results of the competency assessment of the trainees showed that 25 of 30 trainees or 83.33% met the competency evaluation criteria, indicating the efficiency of the process at 83.33%. The percentage of scores from those who passed the test was 82.56%, indicating the performance efficiency at 82.56%. The instruction set efficiency of KW #2 was at 83.33/82.56, which was greater than 70/80, interpreted as effective according to the specified criteria.

Table 5: Process and Performance Efficiencies

Total number of trainees	Number of pass trainees	Percentage of pass trainees	Percentage of scores obtained by pass trainees
30	25	83.33	82.56

Table 6: Comparison by Chi-square

Total trainees	Pass trainees	χ^2	Critical value	α
30	25	.833	3.841	.05

As seen in Table 6, 25 of 30 trainees met the assessment criteria at $\chi^2 =.833$ critical value = 3.841, which was lower than the expected critical value. The obtained chi-square statistic revealed no significant difference between the number of *pass* trainees and that of the *non-pass* trainees at the .05 level. This suggested that the number 25 could serve as a target number of trainees per group. The developed learning model could be confidently recommended to enhance the digital competencies of media and information for the elderly in similar contexts.

8. Discussion of Results

This research was to develop a learning model to enhance media and information literacy competencies for the elderly The model was developed by synthesizing media and information literacy competencies obtained from the related literature and ten digital competency experts. The researchers converted the synthesized competencies into a competency-based training curriculum and training plans for media and information literacy for the elderly in 9 learning modules. The following points were discussed in the sequence of the research objectives:

8.1 Synthesis of Media and Information Literacy Competencies for the Elderly

The synthesis consists of (i) the main purpose, (ii) the main role, (iii) the main function of 4 functions, (iv) the competency unit containing 9 competency units, and (v) the sub-

component unit holding other 18 competency elements. The researchers developed the performance synthesis approach to media literacy information and digital competencies regarding security, media knowledge and media creation with social responsibility. Today's society is full of information that is disseminated through media on a variety of platforms in the rapid and continuous trend of digital communication technology. Users can create their own media--at times with appropriate and inappropriate contents. The use of digital technology in the virtual world inevitably affects the livelihoods of people of all age groups in society.

As seen in the reported indicators of media, information and digital literacy at the personal level to promote democratic citizenship, this point was in line with the research of Ketsuwan (2018) on increasing communication potential in the media literacy campaign among the elderly in Chiang Kha District, Phayao Province. Ketsuwan (2018) analyzed the process of increasing communication campaign potential about media literacy among the elderly in Chiang Kha District, Phayao Province and identified the necessary skills for media literacy similar to the findings of this present study in terms of content accessibility, substance analysis, media understanding and media literacy awareness.

The researchers used a function analysis technique to create a work function diagram starting from setting the main goal, defining major roles, specifying core functions, and identifying digital competencies and their sub-competencies. The reported competency elements under study included performance criteria, knowledge evidence and assessment guidelines, as studied earlier by Whattananarong (2012, 2017).

For consideration and certification of media and information literacy competencies for the elderly obtained by the synthesis approach, the researchers invited ten experts in digital competencies to evaluate the content validity of the developed curriculum and teaching techniques in educational technology and digital communication. This finding was in line with the research of Srisuwan (2019) on the development of a model for enhancing communication competency through *online video media* for small and medium enterprises entrepreneurs. The researcher synthesized online video communication competencies for small and medium enterprises--containing the main purpose, the main role, 5 main functions, 11 competencies and 22 sub-competencies.

8.2 The Learning Model

The researchers developed a learning model to enhance media and information literacy competencies for the elderly. The final result on suitability assessment for each component was found to be at a high level in the sum of the learning styles (Mean = 4.75, S.D. = .48). The assessment criteria were averaged of not less than 3.5--similar to those used by Siljaru (2012).

8.3 Training and Evaluation

The researchers arranged for training and evaluation of media and information literacy capacity building for the group under study by setting the process efficiency effect and the effectiveness of media literacy enhancement outcomes at KW #2 $\geq$ 70/80 to be considered

effective. The obtained efficiency was 83.33/82.56, representing a process efficiency of 83.33 and an output efficiency of 82.56. This type of process/performance efficiency was conducted earlier by Amatmontri (2017) on the development of a competency-based learning model on *the production of audio-visual media.* The efficiency of the process and the efficiency of the performance-based learning model on the production of audio-visual media read 73.33/83.02, representing process efficiency at 73.33 and performance efficiency at 83.02.

9. Suggestions

Based on the obtained findings, the researchers would like to suggest the following:

- The training should be divided into groups according to occupations or similar levels of basic knowledge for appropriateness in organizing activities.
- There should be follow-ups after the training periodically so that the trained group can update their latest development in digital competencies.
- Further research could promote and increase digital competencies of other older adult groups with new modules on citizen journalism and online marketing for specific products.

10. The Authors

Weerawat Pengchuay and Krismant Whattananarong are lecturers in the Department of Technical Education Technology, Faculty of Technical Education, King Mongkut's University of Technology North Bangkok, Thailand. Both authors have their research interest in autonomous learning, digital learning model development, information and media competencies, and recognition issues of particular groups.

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The Impact of Short Video User Loyalty on Marketing: A Case Study of Douyin

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Abstract

This study investigated the impact of short video user loyalty on marketing and its influencing factors in China. The researchers used a constructed questionnaire to collect needed data from 353 voluntary respondents. The statistical analyses included Cronbach's Alpha, Descriptive Data Analysis, Multiple Linear Regression, and Simple Linear Regression. The questionnaire carried Cronbach's Alpha at >0.7 from a group of thirty samples. The respondents' demographic data were analyzed for frequency, percentage, mean and standard deviation. Multiple linear regression was used to assess the impact of short video user loyalty on marketing and its influencing factors in China, as five potential variables: (i) interface design, (ii) corporate image, , (iii) quality of service (including privacy protection and use dependencies), (iv) price of goods, and (v) cost of conversion, as affecting customer satisfaction, and customer loyalty in short video marketing. The results showed that the factors identified as affecting Douyin users were at the significance level of 0.05. All five independent variables--(1) interface design, (2) corporate design, (3) service quality, (4) price of goods, and (5) cost of conversion had a significant effect on customer satisfaction, while customer satisfaction has a significant impact on customer loyalty in the marketing via short videos. The researchers concluded that short video marketing on Douyin platform should improve (1) interface design, (2) corporate design, (3) service quality, (4) price of goods, and (5) cost of conversion to keep customer satisfaction and loyalty in the long run.

Keywords: *Interface design, corporate image, service quality, product price, cost of conversion, customer satisfaction, customer loyalty*

1. Introduction

1.1 Background of the Study

The short video is a kind of Internet content transmission mode, generally referring to the video content based on a certain new media platform. The transmission time is within a few minutes. The development of science and technology and the impact of the international epidemic have promoted a change in people's entertainment and

lifestyle. Reliance on the net social networking, the Internet, short video entertainment, and social functions is becoming more and more dominant. Chinese netizens are more inclined to use mobile electronic devices to shop online, so a new marketing method-- online live shopping has emerged due to the increasing popularity of online live shopping.

The market for mobile phone applications in China currently contains more than 40 different short video applications. According to the findings of a survey conducted by the China Business Intelligence Network in the first half of 2018, the most popular short video apps were as follows: Watermelon video, Douyin, Volcano video, Bobo video, Good-looking video, Short video, Micro video, and Zui You video. Douyin video is relatively new compared to other short video apps; however, it has quickly captured a significant portion of the market share (Li, 2019). This is primarily attributable to the fact that the app satisfies the audience's psychological needs, such as social interaction, psychological transformation, and respect, through precise positioning and combines successful online and offline promotion strategies (France et al., 2021). In addition, Douyin's video makes it easier for users to stay engaged by providing options like forwarding, commenting, and praising other users. The capability for simple video editing gives every user the ability to produce their own videos, significantly boosting users' interest (Lin et al., 2022; Tun Aung & Nuangjamnong, 2022).

According to the research report in 2018, Douyin data of the Second Hand System and Haimayun Big Data, the number of Douyin users has reached 150 million, and the active monthly index has reached 300 million (Chen & Xie, 2008). The age group of its users is mainly between 20 and 30 years old. This is enough to prove that Douyin greatly impacts people's entertainment lifestyle (Chen & Xie, 2008). In various data, the loyalty of short video users to Douyin is beyond doubt.

1.2 Problem Statements

The era of short video marketing has arrived, but the Chinese company that developed the short video application is having a difficult time, particularly when vying for new customers. Even though Douyin video has a strong performance in the domestic penetration market, this does not need or guarantee that it can be developed for a considerable amount of time in the future. At this point, the video that Douyin publishes needs to entice users and greatly increase user stickiness and loyalty. However, most of these studies explain why individuals enjoy watching short films by deriving their explanations from theory rather than conducting real research. Few pieces of published research have been done on short video applications in the United States and globally.

The subject of this case study is "Douyin," an operation representative of the domestic short video industry. This research aims to determine the value of user loyalty to short video platforms for marketing. It will also provide a synopsis of the unsuccessful features of other competing products and make recommendations for improving the short video business. Since Douyin has risen to the top of the domestic short video business, the researchers would like to investigate Douyin as a marketing method by examining the level of devotion to short video marketing exhibited by its viewers.

2. Objective of the Study

The research objective was to investigate the impact of short video user loyalty on marketing and its influencing factors in China.

The researchers expected to analyze five variables: (i) interface design, (ii) corporate image, (iii) quality of service (including privacy protection and use dependencies), (iv) price of goods, and (v) cost of conversion, in relation to customer satisfaction, and customer loyalty in short video marketing.

3. Research Questions

In this study, the research questions were:

(1) What are short video social users' loyalty and marketing characteristics?

(2) Do the five variables: interface design, corporate image, quality of service (including privacy protection and use dependencies), price of goods, and cost of conversion, have impact on customer satisfaction and customer loyalty to short video marketing?

(3) How can short video user loyalty in marketing on Douyin increase marketing performance, customer satisfaction, and customer loyalty?

4. Significance of the Study

In this study, the findings were expected to give the following benefits:

(1) Manage the main contradictions in the short video industry.

(2) With real user loyalty, the Douyin short video platform can guide users to use it correctly in a humanized manner.

(3) Short video marketers can appropriately plan and launch public service advertisements to facilitate and enrich users' entertainment places by taking the case of the Douyin short video platform as a guiding example.

The researchers expected the analysis of user loyalty and short video marketing can serve as a reference tool in expanding the brand influence, deepening user loyalty, and supporting the growth of the short video industry.

5. Scope of the Study

The respondents in this study were 353 Douyin users. The dependent variable of this study was the marketing influenced by the user loyalty to Douyin short videos in two dimensions "communication effect" and "sales effect," which, in turn, might be affected by five potential variables: interface design, corporate image, quality of service (including privacy protection and use dependencies), price of goods, and conversion cost--all having impact on customer satisfaction and user loyalty. The study made clear that the independent variable of user loyalty was set in the three dimensions: "content value," "user orientation," and "Douyin platform characteristics."

6. Literature Review

Through the above literature results, the author used (1) the hierarchy of needs theory, (2) S-R theory, (3) Ryan et al's model (value-satisfaction two-factor driving model) (1999), and (4) Yan Haoren's research model (2005) to verify the empirical

research on user loyalty to marketing in the short video industry. The verification process of this study was mainly to study the Douyin platform in short video marketing the relationship between user loyalty in the dimension of (1) the practicality of marketing, (2) interface design, (3) corporate image, (4) privacy protection, (5) usage dependence, (6) service quality, (7) commodity price, (8) switching cost, and (9) customer satisfaction.

6.1 Overview of User Loyalty at Home and Abroad

Loyalty, as a humanistic concept, has attracted the attention and Churchill (1942) introduced discussion of many scholars since it entered into the business field. Due to the differences in the academic backgrounds of scholars, the concept of customer loyalty is also different. Based on the research results at home and abroad, there are mainly three representative definitions: attitude loyalty theory, behavior loyalty theory, and synthesis theory. Scholars who hold attitude loyalty theory believe that customer loyalty is an emotional preference for products or services, which is reflected in customers' purchase intention and recommendation intention for products or services. In short, it is a positive attitude. Scholars who hold behavioral loyalty theory believe that customer loyalty is a behavior of continuous purchase or use of products or services, which can be measured from the aspects of, repurchase behavior and purchase frequency. The synthesis theory integrates the attitude loyalty theory into the behavior loyalty theory to explain consumers' purchase behaviors in reaction to the marketing stimuli.

6.1.1 International Research

Assael (1993) focused on the relationship between customer loyalty and customer behavior from the perspective of customer purchase behavior. Scholars who hold the synthesis theory have effectively combined the attitude loyalty theory and behavior loyalty theory and believe that customer loyalty is the unity of behavior loyalty and attitude loyalty. Jacoby & Chestnut (1978) believed that when analyzing customer loyalty, we should take into account both the actual purchase behavior of customers and their potential attitudes and preferences. Oliver (1980) explained that customer loyalty was a kind of deep commitment in a sense.

In the traditional research on the driving factors of customer loyalty, the researchers Reichheld & Teal (1996) believed that customer satisfaction determines customers' repeated purchases, word-of-word publicity, and customer loyalty, and improves the benefits of enterprises by preventing customers from switching. Wang (2002) believed that among many driving factors of customer loyalty, customer value, and customer satisfaction, as the full driving factors, which promote customer loyalty from both internal attitude and external behavior, while semi-driving factors, such as high conversion cost, high cognitive risk, and high investment only promote customers' repeated purchase behavior. Saengaran (2022) emphasized three salient factors in determining: the marketing communication performance of a firm: basic conditions, demand conditions, and facilitation from support industries.

6.1.2 National Research

Yan (2005) believed that factors affecting customer loyalty include driving and moderating factors. With the popularization and rapid development of the Internet, customer loyalty in the network environment has gradually become a hot topic for scholars. Most scholars believe online customer loyalty has much in common with traditional customer loyalty. In addition to transactional shopping websites, emerging portal websites, virtual communities, and SNS websites do not involve or rarely involve consumption behaviors, so there is a certain difference between online and traditional customer loyalty.

In the study of non-transactional websites, Zhang et al. (2012) pointed out that selection factors, satisfaction factors, and maintenance factors determine the user loyalty of blogs when studying the user loyalty factors of Chinese blogs. The influencing factors of user loyalty in virtual brand communities, community satisfaction, community identification, community trust, and perceived quality directly impact community loyalty, and perceived quality--all positively affects community loyalty through community satisfaction.

Yang et al. (2018) studied the user loyalty of SNS websites through a reasonable and feasible index system. He found that user satisfaction and user relational switching cost positively affected user loyalty in two dimensions, and three sizes of user value positively affected user satisfaction, among which social value was the largest. Xu (2013) explored Weibo user loyalty from the social dimension and pointed out that perceived familiarity and perceived similarity significantly affected perceived usefulness, user satisfaction, and user loyalty. Zheng (2012) studied the influencing factors of Douyin user loyalty; he found that the practical value of Douyin directly and significantly affected user loyalty, while the application value of Douyin, user satisfaction of Douyin and Douyin's word-of-mouth positively affected user loyalty.

6.1.3 Review of Short Video APP Research

With the continuous development of society, various mobile device softwares have appeared in people's lives, which greatly impact people's living habits. However, the rise of short video software is relatively late, so there is a lack of relevant research. Scholars' research on mobile short video software mainly includes the following points.

6.1.3.1 Current Situation of International Research

International studies on apps have considered the role of the application. For example, Kugler (2016) studied the part of app use in social and economic development. He analyzed the effect of apps in marketing activities, the important role of apps in shopping, watching short videos, and other processes. He explored the connection between mobile phone users and apps.

6.1.3.2 Current Situation of National Research

There has been research on the development status and future trends of mobile short video apps. Wang (2014) believed that under the social background of the mobile Internet, the social mode should eventually form the way of combining text, pictures, and videos. Wang et al. (2015) studied the development of mobile short video and believed that mobile short video was first developed abroad and then entered China. The mobile short video is growing rapidly in China, and the development situation is more

diversified. Wang (2016) took a short mobile video as an example for in-depth analysis. Wang (2016) analyzed the detailed process of mobile short videos finally introduced into China from foreign development. Wang (2017) believed that China's mobile short video was rapidly growing, with rich and diverse types of mobile short video software with rich content transmitted by a short video, and continuous improvement in video production and transmission technology.

Mobile short video apps marketing and profit model have attracted researchers' attention. Wu (2014) believed that the effect of using short videos for advertising was consistent with that of long videos. Marketers can add ads that match the video content according to the different video content. Advertising interaction and advertising promotion are required before the video play to achieve a short video marketing effect. Su (2014) believed there were three different marketing methods for short videos in China at the present stage. The first is to propose a hot topic through short video software to attract users to participate in the activity. The second is the publicity party officially establishing a short video account and using the version to push its propaganda video content and promote its brand. The third is to work with video celebrities with a huge number of followers and put their ads in short videos. In recent years, Bai (2016) analyzed the characteristics of short video and their promotional mode. First, a short video itself has the features of entertainment to promote content. Second, the short video social mode displays more explicit content than the traditional social method. As a result, short video production requirements are low, the production process is simple and convenient, and enterprises can use precision marketing for users.

As seen, scholars' research on short videos mainly discusses the development situation, development prospects, and development mode of short videos. There has been little research on short video software at the present stage, especially on the lack of user satisfaction surveys.

6.2 Review of Theories and Research Related to User Loyalty
6.2.1 Hierarchy of Needs Theory

The hierarchy of needs theory arranges human needs in a certain hierarchy, believing that humans often first meet their urgent needs in behavior and psychology and then consider the satisfaction of other needs. Proposed by the American scholar Maslow, the theory tries to explore the psychological dynamics of an individual at a certain stage and what reasons or needs drive specific behaviors (Tang et al., 2015). Maslow divided the complex needs of the actor into five different categories, from low to high, namely, physiological, safety, social, respect, and self-actualization (Tang et al., 2015). In Maslow's hierarchy theory, the actor first needs to meet the physiological needs, and after meeting the physiological needs, the actor pursues. The needs of the next level up will be the corresponding driving force. This theory provides a good theoretical basis for us to study an individual's behavior. The hierarchy of needs theory shows that the needs of actors do not appear or disappear without any root. The actor's demand constantly changes, and the actor's purchase behavior and potential psychological activities are driven by this demand (Tang et al., 2015). The implication is that after consumers' low-level needs are satisfied, they will have higher-level needs, and the rise of such needs

will generate corresponding purchase motives. The instructions for enterprises are that the satisfaction of enterprises to consumers should not only be reflected in price and quality but also consider that with the development of the social economy, they should focus on the development of brand extension value. The need theory shows that at a certain stage, one of the five needs of the actor is dominant, while the other needs are subordinate (Maslow, 1943).

6.2.2 The S-R Theory

The stimulus-response (S-R) theory explains the reasons for forming brand loyalty. When consumers have the corresponding demand, they will have the connected purchase motivation (Tang et al., 2015). In this process, influenced by brand, quality, price, and other factors, certain product brands will attract consumers' attention (Tang et al., 2015). Thus, brand awareness is initially established. In the cognition stage, consumers finally determine a certain brand of products as their purchase objects through comprehensive comparison and opinions of the people around them. They have their first purchase behavior (Tang et al., 2015). If the product purchased for the first time fails to meet consumers' expectations, the behavior of continuing purchase will not occur again (Tang et al., 2015).

The S-R theory holds that certain stimulus signals, such as price, product, or certain characteristics cause consumers' decisions. In the stimulation process by these signals, consumers gradually form a preference for a certain product or service and finally develop customer loyalty. With the gradual development of the motivation theory, scholars have also expanded the stimulus-response approach, believing there are intermediate links and learning mechanisms, such as forgetting, thinking, and judgment in the stimulus-response view (Hull, 1943).

In today's information explosion, the information consumers are exposed to have become difficult to distinguish between true and false. They begin to collect information through various channels and screen this information. On this basis, we make our own behavioral decisions based on experience and the evaluation of others. Finally, consumers will evaluate the purchase behavior according to the actual utility of the purchase and summarize the learning, which will serve as the reference for the next purchase behavior (Huang et al., 2019). As rational people pursue the maximization of their interests, consumers will choose products or brands based on the purchase results of the previous stage. Therefore, enterprises must make great efforts in their products' quality, characteristics, marketing, and brand building to meet consumers' expectations for related products. Only in this way, they can gradually establish consumers' loyalty (Huang et al., 2019).

6.3 Theoretical Frameworks
6.3.1 Ryan Model (Value-Satisfaction Two-Factor Driving Model)

Figure 1: A Diagnosing Customer Loyalty Drivers
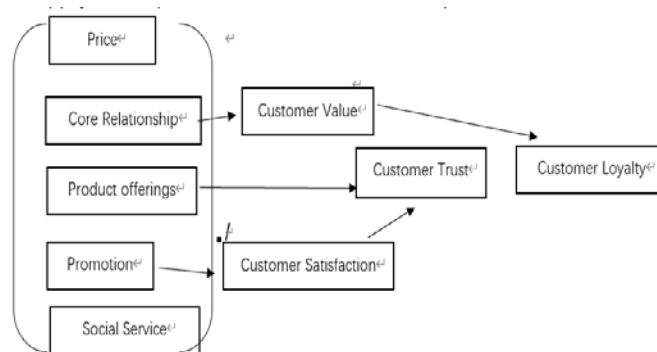
Source: Ryan et al. (1999)

Ryan et al. (1999) proposed that customer satisfaction and customer value contribute to customer loyalty with equal emphasis on price, core relationship, product supply, promotional activities, and social services, which work together in three aspects: customer value, customer satisfaction, and customer trust, thus affecting the formation of customer loyalty as shown in Figure 1.

6.3.2 Yan Haoren Research Model

The influencing factors and theoretical model of customer loyalty are obtained on the basis of Yan (2005) 's interview study on the short video industry. The driving factors and regulating factors of customer loyalty in the short video industry are subdivided, and user-customer loyalty is proposed. Yan (2005) innovatively proposed a situational regulation model for the formation of customer loyalty. He believed that customer loyalty is influenced by seven factors: (1) customer satisfaction, (2) customer trust, (3) switching cost, (4) product experience, (5) interest relevance, (6) alternative, and (7) product complexity. The innovation of Yan Hao-ren's research (2005) is that he introduced the regulating variable into the study of customer loyalty.

6.4 Review of Theories and Studies Related to Independent Variables
6.4.1 Customer Satisfaction

In the 2000 version of ISO/DIS9000, customer satisfaction means that an event's outcome fulfills the customer's needs or expectations. The event here refers to a specific event in which both parties have needs or expectations. Customer satisfaction is, therefore, an indicator that reflects how customers feel. If the customer's expectation of a product is higher than the result obtained, the customer is not satisfied with the development of that product. If the customer's expectations align with the event's outcome, the customer is pleased with the development of the event. When the result is better than expected, the customer feels particularly satisfied.

The English term for satisfaction is the Customer Satisfaction Index (CSI). Sweden created the first user satisfaction survey instrument (SCSB). In 1994, the United States introduced this instrument and, with some improvements, made the American

Customer Satisfaction Index (ACSI). The basic model used to evaluate these indices is a system of equations. It was developed by Zinkhan & Fornell (1989), professors at the University of Michigan School of Economics and Management and the National Quality Research Centre, and their team. In this model, customer expectations, perceived quality, and loyalty are used to evaluate customer satisfaction, and a general logic is created (Li, 2019). Wang (2014) found that the number of users on China's Douyin tends to grow slowly, and users are inactive. Competing for users and capturing users' attention remains a top priority for Douyin. Through research and analysis, he summarized the influencing factors of Douyin user satisfaction: switching costs and other factors positively impact Douyin user loyalty (Wang, 2014).

6.4.2 Interface Design

International studies on the combination of user experience and interface design were early. They formed relatively mature theoretical research and practical experience in various aspects and applied their research results to the mobile Internet, communication, financial, and other elements. In terms of theoretical analysis, the status quo of international academic research is analyzed from two parts of user experience and interface design of mobile devices, which are as follows:

From the perspective of user experience, Dion et al. (1972), Dion as a world-famous cognitive psychologist, in his book Emotional Design, discussed the importance of emotion in design from the three dimensions of behavior, instinct, and reflection and analyzed in detail how to integrate emotional effects into product design--implementing the people-oriented design principle. In the book *Elements of User Experience: User-Centered Product Design* written by Sussman & Siegal (2003), they argue that positive user experience refers to the goal that can be achieved by both users and organizations who create products. From the interface design perspective of mobile devices, there are also quite mature theoretical systems abroad. In the book *Mobile Device Interaction Design* written by Palmer et al. (2013), the interaction design of mobile devices is expounded from multiple perspectives, focusing on user experience research and elaborating on the people-oriented design concept. The necessity of practice and application of the complete design process in mobile devices is effectively put forward by Palmer et al. (2013).

6.4.3 Corporate Image

By definition, corporate image is the strength, values, and vision of an enterprise and it is an important tool for internal and external communication (Zheng, 2012). Berry (2000) defined corporate image identification as an enterprise's unique and lasting characteristics, which is a kind of commitment to customers. Taking Apple's mobile phone as an example, Zhao et al. (2018) proposed a general model of brand identification in their article, that is, demand-satisfaction-interaction-community identity-brand identification, and verified and analyzed it with the grounded theory. Good corporate image identification helps virtual brand community members to provide their community identification, and high community identification can help to improve community members' identification with the enterprise. Mazzalovo (2012) mainly brought in seven elements of brand identity, which can be divided into brand products, brand distribution region, brand existence time, advantages and disadvantages of brand products, brand

market position, the relationship between brand and stakeholders, and future development trend of the brand. The researcher explained the necessity of each level and the role it plays in the market competition by citing cases of well-known brands.

6.4.4 Service Quality

There has been research focusing on specific marketing problems in the service industry. With the development of behavioral science, the theory of service marketing has attracted much attention. Behavioral scholars study the generation of judgment and memory in the process of human interaction, as well as the subsequent formation of personal preferences. They believe that customers' consciousness is the reality in the process of service generation, and what is really related to it is customers' feelings and evaluation of the service process. In the Internet advertising industry, the customers of the Internet platform include marketing agents and advertisers. Therefore, for enterprises, marketing agents and advertisers should be regarded as a leading force by improving customer satisfaction to establish customer loyalty. The Internet marketing agents referred to in this study mainly provide their clients with whole-case planning; for example, online media combined with traditional media advertising, offline activities, sales channel promotion, etc., can carry out a series of work from sales to brand promotion and the service. The network mentioned here not only refers to the Internet but also includes extranets, intranets, and the Internet of Things.

6.4.5 Price of Goods (Commodity Prices)

Wirtz & Crew (2002) put forward the 4R theory after a lot of theoretical and practical exploration, including reward, relationship, correlation, and reaction, which are reward, relationship, relevance, and reaction, respectively. According to the marketing theory, in the process of market development, the marketing level of enterprises should be constantly improved, the marketing methods should be more effective, the relationship between enterprises and customers should also be changed to some extent, and both parties should have stronger initiative. Orsingher & Wirtz (2018) noted in the current market environment that competition is increasingly fierce, and the key factors affecting competition, customer relationship, and customer value should receive more attention to by enterprises.

6.4.6 Cost of Conversion (Switching Costs)

Jackson (1985) proposed the definition of switching cost. Porter & Chen (1997) directly pointed out that conversion cost is a kind of exit barrier, and customers have to pay a certain price for changing product or service providers, so it will also play a very important role in consumers' decision to change.

In marketing, switching costs exist as a barrier to locking in customers. Lam et al. (2004) believed that switching costs were a kind of sunk cost, which involved the loss of time, money, and psychology of customers. Klemperer (1987) further explained that switching costs were composed of eight aspects, including evaluation costs.

6.5 Research Framework

The researchers only focused on five variables: interface design, corporate image, quality of service (including privacy protection and use dependencies), price of goods, and cost of conversion--hypothesized as affecting customer satisfaction and customer loyalty.

Figure 2: The Research Framework
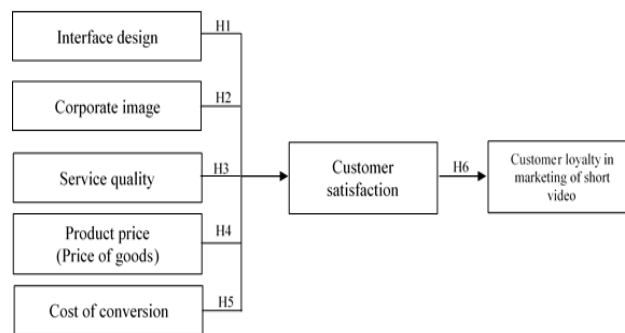
Source: Author (Wei He, 2023)

The hypotheses in this study are shown in detail below:

H1o: Interface design does not affect customer satisfaction toward customer loyalty in the short video marketing.

H1a: Interface design affects customer satisfaction toward customer loyalty in the short video marketing.

H2o: Corporate image does not affect customer satisfaction toward customer loyalty in the short video marketing.

H2a: Corporate image affects customer satisfaction toward customer loyalty in the short video marketing.

H3o: Service quality does not affect customer satisfaction toward customer loyalty in the short video marketing.

H3a: Service quality affects customer satisfaction toward customer loyalty in the short video marketing.

H4o: Product price does not affect customer satisfaction toward customer loyalty in the short video marketing.

H4a: Product price affects customer satisfaction toward customer loyalty in the short video marketing.

H5o: Cost of conversion does not affect customer satisfaction toward customer loyalty in the short video marketing.

H5a: Cost of conversion affects customer satisfaction toward customer loyalty in the short video marketing.

H6o: Customer satisfaction does not affect customer loyalty in the short video marketing.

H6a: Customer satisfaction affects customer loyalty in the short video marketing.

7. Research Methods and Materials

This study uses a constructed questionnaire to collect data from 353 voluntary respondents regarding the impact of user loyalty on short video marketing and its influencing factors. The questionnaire of this study was produced on the platform "Questionnaire Star" and distributed through WeChat groups, moments of friends, local forums, and other digital channels.

7.1 Research Design

The questionnaire design contains two parts: first, *the latent variables and their relationship,* which cannot be directly observed. According to the model structure and relevant assumptions that affect user loyalty to Douyin short videos organized above, the latent variables are confirmed as follows: (1) one outcome variable: user loyalty, (2) one intermediate variable: customer satisfaction, and (3) five initial variables: (i) commodity quality, (ii) service quality, (iii) commodity price, (iv) switching cost, and (v) corporate image. Second, *explicit variables* which can be regarded as the response indicators of specific latent variables; that is, specific measurement questions are designed according to the research hypotheses, and measurable questions are used to quantify and explain latent variables. Based on the research model and hypotheses, this study takes Douyin as a case study to examine the impact of user loyalty on Douyin's short video marketing.

7.2 Sampling Plan

The sample selection was based on an industry survey report by the professional organization Ariadne Consulting, which shows that Douyin and other emerging short video industries, and Douyin is the leading representative of the short video industry in China. The main consumer group was young people, mostly between the 1980s and 1990s; the gender distribution of consumers was similar; their income was in a high range with attachment to the quality of life and entertainment.

Therefore, the researchers of this study first selected 401 voluntary consumers who live in China and have purchased products through the Douyin App platform. They were employees of administrative agencies/ enterprises/ institutions, self-employed or freelance workers, and retirees.

7.3 Research Instrument

This study used a constructed questionnaire to survey the impact of short video user loyalty on marketing and its influencing factors. Four types of statistical were included: Cronbach's alpha, descriptive data analysis, single regression, and multiple regression. First, a sample group of 30 individuals was pretested to obtain the questionnaire's reliability by Cronbach's alpha. A descriptive data analysis was performed on the questionnaire response data. Next, a multiple regression analysis was used to determine the impact of consumer loyalty on short video marketing in China. The impact of seven potential variables listed: (1) product quality, (2) service quality, (3) product price, (4) switching costs, (5) corporate image, (6) customer satisfaction, and (7) consumer loyalty.

7.4 Reliability Test (Pilot Test)

The researchers used Cronbach's coefficient of agreement (alpha) to analyze the obtained descriptive data on the respondents' demographic information and their responses to the questionnaire items. of the target sample. Finally, single-item and multi-item regressions were used to examine effect sizes and to check for causal relationships between the dependent and independent variables.

Cronbach's Alpha rule of thumb; Cronbach's Alpha reliability coefficient angle association strength >0.9 excellent; >0.8 good; >0.7 acceptable; >0.6 problematic; >0.5 poor; and <0.5 unacceptable by Gliem and Gliem (2003). In a preliminary experiment, data were collected from 30 respondents and Cronbach's Alpha reliability tests were conducted to identify errors and to evaluate the internal consistency of the questionnaire. The mean Cronbach's alpha for each variable was greater than 0.7. The variables passed the reliability test and these variables were considered acceptable, good, and excellent questionnaire items.

Table 1: Pre-test Results by Reliability Test (Cronbach's Alpha)

Variables	Number of Items	Cronbach's Alpha (α)	Strength Associated
Interface design	3	0.986	Excellent
Corporate image	3	0.987	Excellent
Service quality	3	0.986	Excellent
Price of goods	3	0.958	Excellent
Cost of conversion	3	0.980	Excellent
Customer satisfaction	3	0.971	Excellent
Customer loyalty	3	0.976	Excellent

Note: n=30

7.5 Methods of Data Gathering, Procedures, and Statistical Treatment of Data

This study used a questionnaire platform to complete and collect the needed data. A total of 401 questionnaires was collected, and 353 valid questionnaires were verified to ensure complete responses at the rate of 88.03%.

This study used Jamovi software for descriptive data analysis with tested reliability and validity; the dependent and independent variables and intermediate variables were for correlation analysis and regression relationship analysis, between variables in the relevant literature. The effects of the marketing factors on short video user loyalty were obtained in support of the current user loyalty to Douyin's short video marketing.

The main statistical methods used in this study were as follows:

(1) Descriptive statistical analysis: The percentage and frequency statistics of the background data of the respondents. The characteristics of each dependent and independent variable, the intervening variables, and users' shopping habits were reported by percentages, means, and standard deviations.

(2) Reliability analysis used Cronbach's alpha to assess the degree of reliability of the constructed questionnaire; validity analysis aimed at content authenticity and validity of the constructed questionnaire as well as the questionnaire response data obtained from the respondents under study.

(3) Correlation analysis checked a relationship between the independent and dependent variables.

(4) Regression analysis examined the quantitative relationship between several variables and determine the causal relationship between them. In this study, linear and multiple regression analyses were used to investigate the existence and significance of significant regression relationships among the variables based on the respective research models and hypotheses mentioned earlier.

8. Results and Discussion

The researchers reported demographic characteristics, such as gender, age, occupation, educational background, and monthly income from 353 valid respondents. Table 2 shows the frequency and percentage of the obtained demographic data.

8.1 Descriptive Demographic Data

Table 2: The Respondents' Demographic Data by Frequency and Percentage

Demographic Data	Frequency	Percentage
Gender		
Female	173	49%
Male	180	51%
Total	**353**	**100%**
Age		
Ages 15 to 19	34	9.6 %
Ages 20 to 24	150	42.5%
Ages 25 to 29	80	22.7%
Ages 30 to 34	50	14.2%
Over 35 years old	31	8.8%
Under 14 years old	8	2.3%
Total	**353**	**100%**
Occupation		
Civil servant/government workers	18	5.1%
Enterprise/company staff	87	24.6 %
Freelancers	45	12.7 %
Individual and private owners	50	14.2 %
Retirement/unemployed	2	0.6 %
Science and education style health workers	25	7.1 %
Service personnel	21	5.9 %
Students	105	29.7 %
Total	**353**	**100%**

Demographic Data	Frequency	Percentage
Education		
High school and the following	51	14.4 %
Masters and above	40	11.3%
Specialist	100	28.3%
Undergraduate	162	45.9%
Total	**353**	**100%**
The habit of using short video App		
Occasionally	167	47.3 %
Often	117	33.1 %
Seldom watch	69	19.5 %
Total	**353**	**100%**
Kind of short videos		
About learning	30	8.5%
Beauty makeup video	19	5.4%
Entertainment stars	29	8.2%
Food, share daily	56	15.9%
Funny video	91	25.8%
Game live	30	8.5%
Hotties	24	6.8%
Life common sense	15	4.2%
Social news	32	9.1%
Sporting events	22	6.2%
Other	5	1.4%
Total	**353**	**100%**
Monthly income		
Below 1000 CNY	67	19.0%
1001 ~ 1400 CNY	15	4.2%
1001 ~ 5000 CNY	120	34%
5001 ~ 8000 CNY	82	23.2%
8001 ~ 10000 CNY	61	17.3%
Above 14000 CNY	8	2.3%
Total	**353**	**100%**
Spend time on short videos every day		
1 ~ 2 hours	75	21.2%
2 ~ 3 hours	109	30.9%
Below 1 hour	33	9.3%
More than 3 hours	136	38.5%
Total	**353**	**100%**
Will make a purchase		
can, often	93	4.2%
will, occasionally will not	260	73.7%
Total	**353**	**100%**

Note：n=353

Table 2 shows the large/ dominant groups in each demographic variable as follows:

- Gender: the respondents were quite proportional with male at 51% and female 49%.

- Age: The large age groups of the respondents were 20-24 at 42.5%, followed by 25-29 at 22.7%
- Occupation: The large occupation groups of the respondents were students at 29.7%, followed by company employees at 24.6%.
- Educational Background: The educational background of the respondents were undergraduates at 45.9% and specialists at 28.3%.
- Frequency of Use: Occasionally at 47.3% and often at 33.1%.
- Types of Short Videos Watched: Funny video at 25.8%, followed by Food, share daily at 15.9%.
- Monthly Income: 1001-5000 CNY at 34%, and 5001-8000 CNY at 23.2%.
- Time Spent Watching Short Videos Daily: The highest proportion was more than 3 hours at 38.5%, and less than 2-3 hours at 30.9%.

8.2 Descriptive Analysis of Responses by Mean and Standard Deviation

The researchers analyzed seven variables by mean and standard deviation: (1) interface design, (2) corporate image, (3) service quality, (4) product price, (5) switching costs, (6) customer satisfaction and (7) customer loyalty. All responses were evaluated by the five categories in the Likert-5 quantity scale interpreted as: 4.51-5.00 as "strongly agree," 3.51-4.50 as "agree," 2.51-3.50 as "neutral," 1.51-2.50 as "disagree," and 1.00-1.50 is interpreted as "strongly disagree." The results are shown in Table 3.

Table 3: Response Categories by Mean and Standard Deviation

Interface Design	Mean	Standard Deviation	Interpreted
ID1: I think the interface design of Douyin is simple and beautiful.	3.53	0.78	Agree
ID2: I think the interface navigation design of Douyin is reasonable and the functions can be switched easily.	3.63*	0.74	Agree
ID3: I think interface design can stimulate my interest.	3.57	0.80	Agree
Corporate Image			
CI1: I think Douyin has a good social reputation.	3.52	0.79	Agree
CI2: I think Douyin has been widely used by social celebrities.	3.58*	0.79	Agree
CI3: I think the functions and services provided by Douyin have been well received by users.	3.58*	0.76	Agree
Quality of Service			
QS1: I think the store Douyin bought is consistent with the marketing in the video.	3.51	0.80	Agree
QS2: I think the logistics and after-sales service staff of Douyin have a good attitude.	3.52*	0.80	Agree
QS3: I think Douyin dealt with the after-sales problem quickly and the remedy plan is satisfactory to me.	3.48	0.82	Agree
Price of Goods			
PG1: I often put up with the things I want until they're on sale.	3.48*	0.79	Agree

Interface Design	Mean	Standard Deviation	Interpreted
PG2: I am often attracted to shopping by Douyin's discount activities.	3.47	0.71	Agree
PG3: I think the price of Douyin is more favorable.	3.46	0.77	Agree
Cost of Conversion			
CC1: I have put a lot of time and energy into using Douyin.	3.44	0.79	Agree
CC2: If I switch to other social applications, I think the search and evaluation will take more time and effort.	3.45*	0.75	Agree
CC3: If I switch to other social apps, it will take me some time to learn new techniques and methods.	3.42	0.80	Agree
Customer Satisfaction			
CSAT1: I think Douyin can make me feel satisfied.	3.53*	0.73	Agree
CSAT2: I shopped more on Douyin than any other short video app.	3.48	0.82	Agree
CSAT3: Compared with other short video software, I prefer to choose Douyin platform first.	3.50	0.78	Agree
Customer Loyalty			
CL1: I would like to continue using Douyin in the future.	3.51*	0.79	Agree
CL2: I will regularly browse product information on Douyin platform and purchase suitable products.	3.41	0.77	Agree
CL3: I would like to recommend Douyin platform to others.	3.50	0.76	Agree

Note: * The highest mean

Table 3 presents the mean values of the problem terms in each variable. The highest corporate image issue is "I think the interface navigation design of Douyin is reasonable and the functions can be switched easily" (mean=3.63, S.D.=0.74). For corporate image, the questions with the highest mean are "I think the functions and services provided by Douyin have been well received by users" (mean=3.58 S.D.=0.76), and "I think Douyin has been widely used by social celebrities" (mean=3.58 S.D.=0.79).

As for the quality of service, the title with the highest mean value is "I think the logistics and after-sales service staff of Douyin have a good attitude" (mean=3.52 S.D.=0.80). For price of goods, the title with the highest mean is "I often put up with the things I want until they're on sale" (mean=3.48 S.D.=0.79). For the cost of conversion, the title with the highest mean was "If I switch to other social applications, I think the search and evaluation will take more time and effort" (mean=3.45 S.D.=0.75). For customer satisfaction, the item with the highest mean value is "I think Douyin can make me feel satisfied" (mean=3.53 S.D.=0.73). For customer loyalty, the item with the highest mean value is "I would like to continue using Douyin in the future" (mean=3.51 S.D.=0.77).

8.3 Hypothesis Testing Results

Table 4: Multiple Linear Regression for H1, H2, H3, H4, H5

Hypotheses	t-value (>1.96)	p-value	VIF	Decision
H1: Interface design →Customer satisfaction	2.97	0.003*	2.47	Supported
H2: Corporate image→ Customer satisfaction	4.15	< .001*	3.02	Supported
H3: Service quality→ Customer satisfaction	3.16	0.002*	3.13	Supported
H4: Price of goods → Customer satisfaction	2.37	0.019*	3.20	Supported
H5: Cost of conversion → Customer satisfaction	6.20	< .001*	2.67	Supported

Note: R square=0.67, Adjust R square=0.67, *p < .05, Dependent Variable=Customer satisfaction

H1 in Table 4, p-value is less than 0.05 at the 95% confidence level. It can be concluded that interface design has an impact on customer satisfaction. Therefore, Hypothesis H1o was rejected, Hypothesis H1a is valid. All VIFs were lower than 5, meaning that there was no multicollinearity problem.

H2 in Table 4, p-value is less than 0.05 at the 95% confidence level. It can be concluded that corporate image has an impact on customer satisfaction. Therefore, Hypothesis H2o was rejected, Hypothesis H2a is valid. All VIFs were lower than 5, meaning that there was no multicollinearity problem.

H3 in Table 4, p-value is less than 0.05 at the 95% confidence level. It can be concluded that service quality has an impact on customer satisfaction. Therefore, Hypothesis H3o was rejected, Hypothesis H3a is valid. All VIFs were lower than 5, meaning that there was no multicollinearity problem.

H4 in Table 4, p-value is less than 0.05 at the 95% confidence level. It can be concluded that product price has an impact on customer satisfaction. Therefore, Hypothesis H4o was rejected, Hypothesis H4a is valid. All VIFs were lower than 5, meaning that there was no multicollinearity problem.

H5 in Table 4, p-value is less than 0.05 at 95% confidence level. It can be concluded that switching costs have an impact on customer satisfaction. Therefore, Hypothesis H5o was rejected, Hypothesis H5a is valid. All VIFs were lower than 5, meaning that there was no multicollinearity problem.

Table 5: Simple Linear Regression for H6

Hypotheses	t-value (>1.96)	p-value	VIF	Decision
H6: Customer satisfaction →Customer loyalty	20.73	< .001	1	Supported

Note: R square=0.56, Adjust R square=0.55, *p < .05, Dependent Variable= Customer loyalty

H6 in Table 5, p-value is less than 0.05 at the 95% confidence level. It can be concluded that Customer satisfaction has an impact on Customer loyalty. Therefore, Hypothesis H6o was rejected, Hypothesis H6a is valid. All VIFs were lower than 5, meaning that there was no multicollinearity problem.

9. Conclusion

In this study, the researchers identified the factors influencing over short video user loyalty in Douyin's marketing and obtained the major findings as follows:

(1) The results showed five factors that impact short video customer satisfaction: (1) interface design, (2) corporate image, (3) service quality, (4) product price, and (5) switching costs of short videos. Customer satisfaction in turn affects short video customer loyalty. The respondents were of opinion that short video marketing can sustain user loyalty in the short video industry. Short video platform marketing can rapidly reach the target audience and increase the impact of shared information by fostering strong relationships within online communities (Chen & Xie, 2008; Li, 2019; France et al., 2021). Therefore, platform marketers in the short video industry must consider how to improve the result of interface design, corporate image, service quality, product price, and switching costs to promote customer satisfaction and customer loyalty.

(2) Short video users of Douyin can explain the decisive factors that lead them to choose a certain short video platform over its competitors, thus making other users aware of the competing short videos. Short video users can understand why they choose this platform through discussion and knowledge sharing (Lin et al., 2022; Saengaran, 2022; Tun Aung & Nuangjamnong, 2022), thus strengthening customer satisfaction, customer loyalty, and the cohesion of Douyin.

As shown in the major findings, the study confirmed that most managers are concerned about the impact of short video user loyalty on generating a competitive advantage. Since the advent of social media, marketing strategies, and tools have changed dramatically. After the increase in switching costs, Douyin's users no longer needed to switch short video platforms to obtain information about similar products and services because a short video platform could effectively and conveniently provide such information. Therefore, short video marketers must devise effective methods to improve interface design, corporate image, service quality, product price, switching cost, and customer satisfaction to achieve the established marketing goals. According to the study, if short video users can successfully help users build deep user loyalty, it will promote a strong relationship between short video users and the Douyin platform, leading to the formation of customer or guest loyalty. In such a scenario, Douyin platform could apply the major findings of this study by enhancing interface design, corporate image, service quality, product price, and effective management of switching costs for customer satisfaction and loyalty to cope with other competitors in the short video industry.

10. Limitations of the Study

The researchers of this study identified limitations in the study regarding sample size, and the scope of the Chinese market. The results may not be able to generate implications for the marketing contexts of other countries. However, the case study of Douyin could serve as a guide for the marketing variables to be explored by other short video platforms. As emphasized by the researchers, user loyalty is highly dynamic and deserves a great deal of attention from all parties or stakeholders concerned.

11. The Authors

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Relationship between Integrated Marketing Communication Strategy and Cosmetics Business Performance in Thailand

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Abstract

This research investigated the relationship between an integrated marketing communication strategy and the performance of cosmetic businesses in Thailand. The researchers collected data from 104 voluntary marketing executives using a mailed questionnaire. Correlation analysis and multiple regression analysis were used as statistical techniques to analyze the obtained data. The results indicated that the integrated marketing communication strategy in terms of message consistency orientation and media channel aspects positively relates to and affects performance. However, the identified integrated marketing communication strategy from an inter-functional coordination aspect does not significantly affect performance. According to the obtained findings, businesses should pay attention to the *procedures* of strategic marketing communication *planning* to enhance business competency for competition and sustain environmental transformation. Such planning procedures can increase customer acceptance as the key success factor for business efficiency and effectiveness.

Keywords: Integrated marketing communication strategy, performance, cosmetics business in Thailand

1. Introduction

At present, the global economy is changing, and competition is steadily increasing. It is needed to improve and develop the work management system to create advantages and competitiveness so that one's business can be above the competitors in marketing. Businesses need to adapt their business environment. To respond to ever-changing customer needs as well as manage and operate a business successfully, including to create an operational advantage, there must be a good practice in managing the marketing communication strategy.

Among several marketing strategies, integrated marketing communication is widely adopted by businesses. The integrated marketing communication strategy is a planning process that aims to use a variety of communication tools, helping to maximize the efficiency of communication to send clear and consistent information about businesses as well as products in the same direction in a unified mode of marketing communication (Rodprasert, 2019). It is used for marketing activities including public relations that focus on image creation and the

presentation of information and news. Advertising is a drive for sales promotions to make purchase decisions faster; and direct marketing targeted at customers is subject to consumer behavior learning. It is a process to measure the efficiency and effectiveness of business operations in the short and long term. For businesses, *message consistency orientation* and *media channels* (Tafesse & Kitchen, 2017), therefore, have the most useful application of integrated marketing communication strategies with a positive impact on performance in terms of market share, sales growth rate, changes in profit margin growth, market value, and consumer satisfaction. As long as consumers are loyal to the organization, it can continue to survive and succeed in the future.

Performance is the result of operations and can indicate how the business is performing at that time, which may be in the form of sales, profit margin of the performance and indication of the success or failure of the business. It leads to confidence in growth. The performance of a business organization also contains four components: brand trust, customer loyalty, market acceptance, and marketing survival (Oana, 2018). In this regard, effective and successful performance in the short and long term can be achieved from having a good operational strategy, especially in the field of integrated marketing communication.

In the cosmetics business, manufactures or distributors of products emphasize exterior of the body for cleanliness and beauty, enhanced appearance, deodorant provision, and groomed body condition. According to the Center for Economic and Business Forecasting, University of the Thai Chamber of Commerce in 2019, many women and men pay great attention to daily use of beauty products, for which corporate executives need to build product credibility with consumers. Therefore, cosmetic businesses with the potential and ability to do well and effective integrated marketing communication strategies can reach their good performance both in a short and long term for business success and sustainability. Based on these considerations of integrated marketing communication, the researchers were interested in exploring the relationship between integrated marketing communication strategies and the performance of cosmetics businesses in Thailand. The results of the research can be used as information to improve and develop a sustainable marketing strategy for cosmetics business organizations, as well as secure a guide for their planning for quality marketing strategies.

2. Research Objectives

There were two research objectives:

1. To investigate the relationship between an integrated marketing communication strategy and the performance of cosmetic businesses in Thailand.

2. To identify the impact of integrated marketing communication strategy on the performance of cosmetics businesses in Thailand.

3. Related Research Papers and Research Hypotheses

In this research, integrated marketing communication strategies were defined as independent variables. And the business performance is a dependent variable as shown in Figure 1.

Figure 1: Model of Integrated Marketing Communication Strategy and Performance

Integrated Marketing Communication Strategy (IMC)
1. Inter-Functional Coordination (IFC)
2. Message Consistency Orientation (MCO)
3. Media Channels (MCN)

H1 – H3

Performance (PFM)
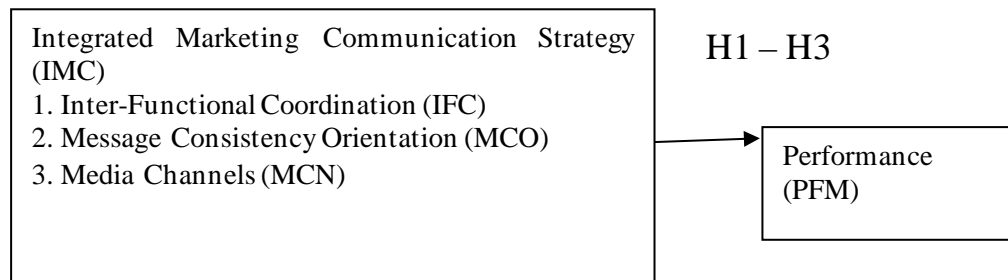
3.1 Integrated Marketing Communication Strategy

The term *integrated marketing communication strategy* refers to the process of planning a comprehensive marketing communication using a variety of communication methods to achieve the objectives of the business operation--be it advertising or direct responses. Promotion, sales, and public relations in various forms are used in a mix by people in the organization and communication network partners in the same industry. For clarity and consistency that convey unity, the most effective performance is achieved. Therefore, an integrated marketing communication strategy is a method to identify customers strategy and connect organizations with consumers. Tafesse & Kitchen (2017) explained in detail:

(1) *Inter-functional coordination* refers to the process among the internal departments within organizations. There is a cooperative effort to solve the identified problem for mutual agreement on solutions, such as by holding special meetings to plan operations with specific objectives to meet the needs of various organizational goals and reduce redundancy in operations. The trend toward Inter-Functional Coordination signifies operational planning. With a good marketing strategy, more people in the organization need to cooperate for practical and effective solutions (Narver & Slater, 1990).

(2) *Message consistency orientation* refers to the determination of the direction of the message as an organization goal to convince and communicate by text or information in harmony and consistency. Most marketing communications are based on persuasion and encouraging customers to participate in purchases and change their attitudes and behaviors accordingly. As for the level of persuasion of the message or the source of the message, it is essential to determine the strategic consistency that comes from the meetings and planning of the staff in the organization, as well as the channels of marketing communication. An integrated marketing communication strategy can achieve its objectives according to its plan. The organization needs to focus on the consistency of the message thoroughly, both in terms of content and information, in order to impose a positive attitude on consumers, which in turn will affect sales, profit, and customer satisfaction. This is the creation of a competitive advantage in the company's business operations and its recognition in terms of marketing (Saengaran, 2022).

(3) *Media channels* refer to various marketing media channels, including how to apply them correctly and appropriately for customers or target groups via the most effective communication method for good performance of the organization (Karam, 2020).

3.2. Performance

Conceptual performance refers to the results of the organization's operations, which are measured and evaluated with the identified objectives or goals set for operations of the organization, both in terms of customers and processes leading to financial results, such as sales revenue, profit, and market share, as well as non-monetary results. Conceptual performance covers brand trust, customer loyalty, market acceptance, and marketing survival:

(1) *Brand trust* refers to the relationship between the seller or manufacturer and the buyer or consumer. If consumers have confidence and trust in the organization and its products, the organization can generate profits and increase market share. Consumers' confidence is therefore essential for marketers to continuously build up the brand's image at all times. The principle of trust also involves building a relationship between consumers and brands. Consumers require confidence in the brands of their choice, and brands also rely on consumer confidence. To maintain brand confidence, especially in today's fiercely competitive market situation, brand confidence stems from consumers' belief that the brand does not cause damage or harm them. A successful brand with consumers' confidence can only survive in the long term.

(2) *Customer loyalty* refers to the positive attitude of a customer toward a brand or service provider resulting from the customer's being satisfied with the goods or services received. This makes customers more likely to come back and repurchase products or services in the near future. Customer loyalty builds long-term relationships with those who serve a business entity or company. By retaining customers for long without changing their minds to buy products or use the services of competitors, the customer's long-lasting relationships are really important to maintain and increase the market share of the business. Therefore, an important marketing strategy is to build customer loyalty, which is essential to success in the company's operations (Schiffman & Kanuk, 2007).

(3) *Market acceptance* refers to whether it is measurable for the goods or services of the organization in terms of customer satisfaction. In marketing operations, market acceptance is of utmost importance for an organization to consider at the time of the launch of its products or services in determining whether they will succeed or fail. A process measuring how customers in the market accept products or services, includes stakeholders of the organization concerned. Investors' and customers' acceptance of the organization can be divided into phases, which occur when the organization has a project before releasing a new product or service. The organization requires a market acceptance test to see if the goods or services will succeed. (MBA School Team, 2016).

(4) *Marketing survival* means the ability of a business to stand out from its competitors. When the organization faces a situation of uncontrollable risk, there will be changes and challenges in the operation. In order for an organization to survive in marketing, it requires the value added in products and services by planning for both the short and long term of business operations to gain market acceptance both within and outside the organization, as well as support from the stakeholders to be able to generate profits and market share. Growing sales and gaining recognition while maintaining a stable reputation, will allow the organization to survive in the market (Hamidizadeh, Sanati, &

Avili, 2016). Based on such previous research findings, it can be seen that the integrated marketing communication strategy can lead to three hypotheses as follows:

H1: Integrated marketing communication strategy on inter-functional coordination correlates with and impacts a cosmetics company's performance.

H2: Integrated marketing communication strategy on message consistency orientation correlates with and impacts a cosmetics company's performance.

H3: Integrated marketing communication strategy on media channels correlates with and impacts a cosmetics company's performance.

4. Research Methodology

4.1 The Respondents

The respondents in this research were 400 voluntary cosmetic marketing executives in Thailand. They were sampled by Krejcie and Morgan tables and stratified random sampling methods. From April-June June 2022, the researchers collected data using a constructed questionnaire (validated by five marketing specialists) via e-mail and received a total of 104 responses (26.00%; a response rate of at least 20% as acceptable in this study).

4.2 The Research Tool

The tool used in this research was a questionnaire constructed according to the objectives and conceptual framework. The questionnaire contained four parts as follows:

Part 1: General information on the respondents' gender, age, status, educational background, work experiences, average monthly income and current job title.

Part 2: A checklist of eight items on the respondents' (1) business model, (2) type of business, (3) type of cosmetics produced, (4) location of business, (5) operating capital, (6) duration of business operation, (7) current number of employees, and (8) average annual income of the business. (These items were kept confidential and not reported in the study.)

Part 3: The respondents' opinions on integrated marketing communication strategies and the performance of cosmetics businesses in Thailand. There were 15 items on a scale of 1 low to 5 high covering three aspects of an integrated marketing communication strategy with five items for each aspect: (1) inter-functional coordination, (2) message consistency orientation, and (3) media channels.

Part 4: The respondents' opinions on the performance of the cosmetics business in Thailand. The questionnaire contained 16 items on a scale of 1 low to 5 high covering four aspects of business performance with four items for each aspect: (1) brand trustworthiness, (2) customer loyalty, (3) market acceptance, and (4) marketing survival

5. Data Collection and Analysis

In this study, the researchers used statistics to test variable characteristics, including the multicollinearity test using variance inflation factors (VIFS), and statistics used to verify hypotheses including multiple correlation analysis and multiple regression. The equations were as follows:

Equation $PFM = \beta_o + \beta_1 IFC + \beta_2 MCO + \beta_3 MCN + \varepsilon$
where
PFM   represents   an average score of opinions on overall performance.

IFC   represents   an average opinion score on integrated marketing communication strategies: Inter-Functional Coordination

MCO   represents   an average opinion score on integrated marketing communication strategy: Message Consistency Orientation

MCN   represents   an average opinion score on integrated marketing communication strategy: Media Channels

ε represents   Predictability

6. Research Results and Discussion

Table 1: Correlation Analysis of Integrated Marketing Communication Strategies with Performance of Overall Cosmetics Business in Thailand

Variable	PFM	IFC	MCO	MCN	VIFs
$\bar{x}$	4.06	4.45	4.53	4.60	
S.D.	0.54	0.56	0.54	0.39	
PFM	-	0.251*	0.504*	0.168	
IFC		-	0.686*	0.649*	2.205
MCO			-	0.637*	2.148
MCN				-	1.965

Table 1 shows a correlation analysis of integrated marketing communication strategies and overall performance of the cosmetics business in Thailand. It was found that each independent variable is correlated, which may form multicollinearity. The researchers then tested multicollinearity using VIFs. A value from 1.965 to 2.205, which is less than 10, indicates that the independent variables are correlated but not significant (Hair, Black & Alderson, 2006).

Table 2: Analysis of Regression Coefficients of Integrated Marketing Communication Strategy Variables and Overall Performance of Cosmetics Business in Thailand

Marketing Communication Strategy	Performance		t	p-value
	Coefficient decay	Standard tolerances		
Constant (a)	2.648	0.533	4.963	0.000*
Inter-Functional Coordination (IFC)	0.085	0.120	0.704	0.483
Message Consistency Orientation (MCO)	0.713	0.123	5.772	0.000*
Media Channels (MCN)	0.311	0.161	1.935	0.056

$F = 14.101 \ p = 0.000 \ AdjR^2 = 0.276$

* Statistically significant at 0.05

Table 2 reports the regression coefficient analysis of marketing communication strategy in terms of its integrated variables and the overall performance of the cosmetics business in Thailand. It was found that of all integrated marketing communication strategies, Message Consistency Orientation is the focus. There is a correlation and a positive impact on overall performance. The company's performance in terms of brand confidence, customer loyalty, market acceptance, and market survival, the organization has both existing and new customers constantly rotating to buy products and services; and when the organization organizes various activities, customers participate. As a result, there is an increase in sales of products or services for customers. It is measured in the cycle over the past five years, with the increased profit margins generated from operations and marketing processes compared to competitors in the market, allowing the organization to survive and achieve long-term sustainability in management.

The result on market survival and management sustainability appeared in line with the research finding by Satya Indra (2018) in that organizations integrating marketing communications can increase the number of customers and corporate revenue. By combining marketing communication tools of different formats to be consistent and aligned in sending messages to the target customers, business organizations can attract the attention of different leads, thereby creating relationships between them and potential customers. Such a result on consumers' behavior in responding to goods or services, particularly their need for information about the goods or services, would lead to increased marketing performance and revenue, as earlier reported by Englund et al. (2020). In their viewpoint, the choice of an integrated marketing communication strategy carries an effective planning process. The use of social media suitable for the target audience can be easily accessed. This could engage consumers to feel connected to the organization in the long run. Such planning in the marketing communication process would also increase revenue for the organization. Therefore, the H2 hypothesis is accepted.

With the integrated marketing communication strategy, Media Channels have a positive impact on overall performance. Brand confidence and market survival are what the company is interested in managing marketing communication strategies by introducing various technologies and marketing media channels into its marketing communications. The result on increased efficiency and effectiveness of the organization using of good media channels to match customer groups can urge customers to buy a product or service for a good experience provided by the organization. Acceptance of and trust in the organization can give the organization a competitive advantage over its competitor because of marketing messages can reach its target customers. This will increase the revenue generated by increased efficiency and operational effectiveness of the organization to survive and achieve sustainable management in the long run (Hamidizadeh, Sanati & Avili, 2016). Particularly, Hyvonen (2007) also emphasized a business model with performance based on non-monetary metrics. equilibrium measurements, customer satisfaction, qualitative measurements, and financial-related metrics on profit sharing, profit control, budget change analysis, and working capital rates.

Such emphasis on a performance-based business model was in line with Hamidizadeh, Sanati & Avili (2016), showing integrated marketing communications to affect sales and brand efficiency. Englund et al. (2020) signified the choice of an integrated marketing communication strategy in effective planning. The use of social media engages consumers to feel connected to the organization in the long run. Such planning will also help increase revenue for the organization. Therefore, the H3 hypothesis is accepted.

The integrated marketing communication strategy of Inter-Functional Coordination has no relationship but with a positive impact on overall performance due to limitations in the transmission of data among the agencies. It should be noted that in some Thai organizations, technology is not much helpful for data collection and processing because collaboration between departments may not be sufficiently supportive in work planning to achieve the objectives due to the culture and working context of the organization (Pruthijirawong et al., 2020). And Chaninthorn et al. (2020) explained that it was possible for internal cooperation not to show correlation with performance. This point was also pointed out by Pruthijirawong et al. (2020) that Inter-Functional Coordination does not influence the performance in terms of loyalty in the services of members of the Northeast Chamber of Commerce. Therefore, the obtained finding rejects the hypothesis H1: Integrated marketing communication strategy on inter-functional coordination correlates with and impacts a cosmetics company's operating results.

7. Suggestions

Based on the obtained findings, the researchers would like to recommend the following.

(1) The marketing executives of the cosmetics business should focus on integrated marketing communication strategies. This is to reduce redundancy in business operations, bridge operational gaps, minimize conflicts, and provide opportunities for all members of the organization to express their opinions or needs in planning together.

(2) The marketing executives of the business should focus on integrated marketing communication strategies on Media Channels to reach customers via quick access in digital technology.

(3) The marketing executive of a cosmetics business should focus on promoting and supporting the analysis of the resource needs of people within the organization, the budget, and the objectives of the integrated marketing communication strategy as a whole. These are to make the operations more efficient and create sustainability for the organization in the long run.

(4) As for future research, the researchers of this study would like to see further investigation into success factors in the cosmetic business as well as obstacles of integrated marketing communication strategies in particular contexts. In addition, other variables, such as tracking marketing communication strategies in the digital age could give a new dimension in creating competitive advantages for enterprises in the cosmetics and beauty industry.

8. The Authors

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The Effects of Quality System Management on Creating the Basic Education Schools as Innovative Organizations in Nonthaburi Province

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Abstract

This research aimed to (1) examine the quality system management of basic education schools in Nonthaburi Province, (2) create the basic education schools in Nonthaburi Province as innovative organizations, and (3) identify the effects of quality system management on creating the basic education schools in Nonthaburi Province as innovative organizations. The research instrument was an opinionnaire of 95 items in two sections: (1) 50 items about the quality system management required for world class standard schools by the principles of the Office of the Basic Education Commission Thailand, and (2) 45 items on the creation of basic education schools as innovative organizations based on the concepts of Tidd, Bessant & Pavitt (2009). The 2-step sampling method yielded 364 persons comprising administrators, the heads of the learning subject groups, and teachers from the selected basic education schools in Nonthaburi Province. The obtained data were analyzed for frequency, percentage, mean, standard deviation and stepwise multiple regression. The study revealed three major findings: (1) *Quality system management* of the basic education schools in Nonthaburi Province was at a high level in a descending order as: (i) performance results, (ii) staff focus, (iii) strategic planning, (iv) student and stakeholder focus, (v) measurement analysis and knowledge management, (vi) process management and (vii) leadership. (2) The *creation* of the basic education schools in Nonthaburi Province as *innovative organizations* required eight characteristics in a descending order: (i) key individual, (ii) appropriate organizational structure, (iii) effective teamwork, (iv) the

climate that promotes creativity, (v) high participation in innovation, (vi) long term stability, (vii) network interconnection capability and learning exchange, (viii) shared vision of leadership and intention to create innovation. (3) *Quality system management* signified five variables: (i) outcomes, (ii) strategic planning, (iii) process management, (iv) measurement analysis, (v) knowledge management and leadership—*all affecting the creation* of the basic education schools in Nonthaburi Province as *innovative organizations* at 88.90%, as expressed in a regression analysis equation:

$\hat{Y}_{tot} = 0.148 + 0.514X_7 + 0.104X_2 + 0.138X_6 + 0.124X_4 + 0.091X_1$. The identified effects of quality system management on creating basic education schools as innovative organizations shown in the study were expected to generate practical implications for effective management practices in other Thai schools in similar contexts.

Keywords: Quality system management, innovative organizations,
basic education schools, Nonthaburi Province

1. Introduction

The application of digital technology for organizational development is part of the age of globalization, with rapid changes in global social trends. As known, digital disruption refers to the changing conditions caused by digital technologies that create innovations and new business models (Phakamach et al., 2022). There has been a change in every aspect, including science, society, a knowledge-based economy, and the advancement of information technology. It is therefore a challenge that people in the present era will realize it for organizational success, and develop self-reliant technologies (Ngernprasertsri, 2012; Sinlarat, 2020). It is important to encourage continuous learning throughout the organization and develop the organization to go through various situations that may arise. People need to be qualified, ready to develop the organization and have a good management and operational system to achieve the specified goals on a quality organization and quality output (Onsampant, 2020). In particular, educational institutions or schools are vital social institutions responsible for building and developing human capital. Therefore, educational management serves as the foundation of the country's development. Educational institutions need to have a good structure, process, and strategy. This requires strategic educational organizations' principles, methods, and management (Mongkolvanich, 2012; Sinlarat, 2020). School administrators must use leadership and professionalism to manage and support the systems for excellence in quality. The Office of the Basic Education Commission (OBEC) aimed at quality basic education and implemented the World-Class Standard School project in 2010. The project adopted the system of the Malcolm Baldrige National Quality Award (MBNQA) that develops organizational management capabilities at the global standard level. The

quality criteria were later developed as Neighboring Countries Economic Development Cooperation Agency (NEDA)--also called OBECQA--to promote and support the development of quality education at the international level (Office of the Basic Education Commission, 2017). The project was to (1) develop students to have world citizenship, academic excellence, communication in at least two languages, advanced ideas, creative work and responsibility for the global society; (2) enhance teaching and learning management comparable to World-Class Standard Schools regarding academic quality, teacher quality, and research and development; (3) apply the principles of TQA to develop a handbook for the quality management of international standard schools by operating with 7 categories of quality management system: (i) Leadership, (ii) Strategic Planning, (iii) Student and Stakeholder Focus, (iv) Measurement, Analysis and Knowledge Management, (v) Faculty and Staff Focus, (vi) Process Management, and (vii) Performance Results. These categories are to support quality development at the international level (Office of the High School Administration, 2010).

An innovative organization refers to an organization that supports people's innovation for change. Leaders must motivate their people to work hard and have knowledge and expertise in the work done (Decharin, 2012; Phakamach et al., 2021). Tidd, Bessant & Pavitt (2009) introduced the concept of creating an innovation organization. It contained 8 components: (i) Shared Vision, Leadership and the Will to Innovate, (ii) Appropriate Organization Structure, (iii) Key Individual, (iv) High Involvement in Innovation, (v) Effective Team Working, (vi) Creative Climate, (vii) Boundary Spanning and Exchange, and (viii) Beyond the Steady State.

Nonthaburi Elementary Educational Service Area District Office 1 (2022) presented the results of education management in the academic year 2021 as follows:

(1) O-NET test results for the 6th grade and 3rd grade in 2021 and 2020 fell below the national level.

(2) Centrally defined policies appeared inconsistent with the needs of school district offices and educational institutions and were intermittent in nature.

(3) There was a shortage of personnel with specialized knowledge and abilities, such as information technology, rapidly changing information technology media, and social problems with weak moral and ethical aspects, violence against children and young people with high-risk attitudes, values and behaviors.

(4) Educational institutions lacked digital technology equipment for learning and management. Some office supplies were not sufficient. The COVID-19 pandemic resulted in a significant reduction in testing.

It was noted that most basic education institutions in Nonthaburi Province under Nonthaburi Elementary Educational Service Area District Office 1 and Office 2 and Nonthaburi Provincial Administrative Organization did not participate in the world class standard school project on quality management and innovative organizations. In this regard, the researchers expected that the principles of quality management and innovation organization under study could generate practical implications for school management at the provincial and national levels. With such expectation, the researchers considered the significance of the quality system management in terms of its effects on the creation of basic education schools in Nonthaburi Province as innovative organizations.

2. Research Objectives

The study had three research objectives:

(1) Examine the quality system management of basic education schools in Nonthaburi Province,

(2) Create the basic education schools in Nonthaburi Province as innovative organizations, and

(3) Identify the effects of quality system management on creating basic education schools in Nonthaburi Province as innovative organizations.

3. Research Conceptual Framework

The researchers established a conceptual framework for the research by adopting quality management according to the principles of the Office of the High School Administration (2010) in 7 categories: (i) Leadership, (ii) Strategic Planning, (iii) Student and Stakeholder Focus, (iv) Measurement, Analysis and Knowledge Management, (v) Faculty and Staff Focus, (vi) Process Management, and (vii) Performance Results. By these principles, the researchers aimed at the creation of innovative organizations according to the concept of Tidd, Bessant & Pavitt (2009) in 8 elements as follows: (i) Shared Vision, Leadership and the Will to Innovate, (ii) Appropriate Organization Structure, (iii) Key Individual, (iv) High Involvement Innovation, (v) Effective Team Working, (vi) Creative Climate, (vii) Boundary Spanning, and (viii) Beyond the Steady State. The conceptual research framework is shown in Figure 1.

Figure 1 Research Conceptual Framework

Quality System Management (X_{tot})	Innovative Organization Creation (Y_{tot})
1. Leadership (X_1) 2. Strategic Planning (X_2) 3. Student and Stakeholder Focus (X_3) 4. Measurement, Analysis and Knowledge Management (X_4) 5. Faculty and Staff Focus (X_5) 6. Process Management (X_6) 7. Performance Results (X_7)	1. Shared Vision, Leadership and the Will to Innovate (Y_1) 2. Appropriate Organization Structure (Y_2) 3. Key Individual (Y_3) 4. High Involvement Innovation (Y_4) 5. Effective Team Working (Y_5) 6. Creative Climate (Y_6) 7. Boundary Spanning (Y_7) 8. Beyond the steady state (Y_8)

4. Research Methodology

This research was conducted with basic education schools under Nonthaburi Elementary Educational Service Area District Office 1 and Office 1 and Nonthaburi Provincial Administrative Organization (PAO) to obtain the needed data for analysis.

4.1 Population and Samples

The population of the basic educational institutions in Nonthaburi was 129 schools: (1) 32 schools under the Office of Nonthaburi Elementary Education Area District 1, (2) 63 schools under Nonthaburi Elementary Education Area Office District 2, and (3) 34 schools under Nonthaburi Provincial Administration Organization (PAO). The sample group was 54 elementary schools from the three Offices. The sample was classified by school size as extra-large and large, medium, and small—having 18 schools for each size. The two-stage random sampling method was used:

(1) The school sample was assigned according to the three sizes of the schools under each Office: extra-large and large, medium, and small. The researchers collected data from six schools of each size.

(2) The number of informants was determined by the size-criterion of the participating schools. Each school had 10 students, a medium school 8 students, and a small school 4 students as informants per school. The total number of informants was 396, as shown in Table 1.

Table 1: Samples and Informants Classified by School Size and Affiliation in Nonthaburi Province

Affiliation / School Size Number of Informants	Nonthaburi (OPEA) Office 1		Nonthaburi (OPEA) Office 2		Nonthaburi (PAO)		Number of Contributors
	School	Person	School	Person	School	Person	
Extra-large and large size (10 person/school)	6	60	6	60	6	60	180
Medium size (8 person/school)	6	48	6	48	6	48	144
Small size (4 person/school)	6	24	6	24	6	24	72
Total	**18**	**132**	**18**	**132**	**18**	**132**	**396**

4.2 Research Instrument

The research tool was a questionnaire through content validity verification with the Index of Item Objective Congruence (IOC) technique from three experts in educational management. The individual index was between 0.67-1.00 and then the researchers obtained the accuracy of the whole analysis at the reliability value of .991, the accuracy of quality management variables equal to .982, and the accuracy of innovation organization variables equal to .983.

4.3 Research Statistics

The research statistics was in three types:

(1) The status of informants by frequency and percentage.

(2) The analysis of quality system management/creation of basic educational institutions in Nonthaburi Province as innovative organizations by mean ($\bar{X}$) and standard deviation (S.D.)

(3) The analysis of the quality system management that affects the creation of the basic education schools as innovative organizations by Stepwise Multiple Regression Analysis.

5. Results

Part 1: Analysis of the Quality System Management of Basic Education Schools in Nonthaburi Province

We analyzed the obtained responses to the questionnaire by using mean ($\bar{X}$)) and standard deviation (S.D.). The returned responses were 364 copies

from 49 schools-- representing 91.91% of the total. The seven aspects with their level of the quality system management of the basic education schools in Nonthaburi Province are shown in Table 2.

Table 2: Mean Values, Standard Deviation and Levels of the Quality System Management of Basic Education Schools in Nonthaburi Province (X_{tot})

(n= 364)

No.	Quality System Management (X_{tot})	$\overline{X}$	S.D.	Level
1	Leadership (X_1)	4.26	0.61	high
2	Strategic Planning (X_2)	4.34	0.53	high
3	Student and Stakeholder Focus (X_3)	4.34	0.55	high
4	Measurement, Analysis and Knowledge Management (X_4)	4.31	0.55	high
5	Faculty and Staff Focus (X_5)	4.35	0.60	high
6	Process Management (X_6)	4.30	0.59	high
7	Performance Results (X_7)	4.38	0.53	high
	Total	**4.33**	**0.50**	**high**

Table 2 shows the quality system management of the basic education schools in Nonthaburi Province as a whole is at a high level ($\overline{X}$ = 4.33, S.D. = 0.50). There was a high average in all aspects in a descending order: (1) performance results (X_7) ($\overline{X}$ = 4.38, S.D. = 0.53), (2) faculty and staff focus (X_5) ($\overline{X}$ = 4.35, S.D. = 0.60), (3) strategic planning (X_2) ($\overline{X}$ = 4.34, S.D. = 0.53), (4) student and stakeholder focus (X_3) ($\overline{X}$ = 4.34, S.D. = 0.55), (5) measurement, analysis and knowledge management (X_4) ($\overline{X}$ = 4.31, S.D. = 0.55), (6) process management (X_6) ($\overline{X}$ = 4.30, S.D. = 0.59), and (7) leadership (X_1) ($\overline{X}$ = 4.26, S.D. = 0.61).

Part 2: Analysis of the Creation of Basic Education Schools as Innovative Organizations in Nonthaburi Province

The analysis of the creation of basic education schools in Nonthaburi as innovative organizations using mean ($\overline{X}$) and standard deviation (S.D.) from the sample of 364 participants is presented in Table 3.

Table 3: Mean, Deviations for the Creation of Basic Education Schools in Nonthaburi Province as Innovative Organizations (Y_{tot})

(n= 364)

No.	Innovative Organizations Creation	$\overline{X}$	S.D.	Level
1	Shared Vision, Leadership and the Will to Innovate (Y_1)	4.28	0.62	high
2	Appropriate Organization Structure (Y_2)	4.36	0.59	high
3	Key Individual (Y_3)	4.39	0.58	high
4	High Involvement Innovation (Y_4)	4.33	0.62	high
5	Effective Team Work (Y_5)	4.34	0.60	high
6	Creative Climate (Y_6)	4.34	0.62	high
7	Boundary Spanning (Y_7)	4.31	0.64	high
8	Beyond the Steady State (Y_8)	4.32	0.64	high
	Total	**4.33**	**0.55**	**high**

Table 3 shows that the creation of the basic education schools in Nonthaburi Province as innovative organizations, as a whole, was at a high level ($\overline{X}$ = 4.33 S.D. = 0.55); the mean was found to be high on all aspects in a descending order: (i) key individual (Y_3) ($\overline{X}$ = 4.39, S.D. = 0.58), (ii) appropriate organization structure (Y_2) ($\overline{X}$ = 4.36, S.D. = 0.59), (iii) effective team working (Y_5) ($\overline{X}$ = 4.34, S.D. = 0.60), (iv) creative climate (Y_6) ($\overline{X}$ = 4.34, S.D. = 0.62), (v) high involvement innovation (Y_4) ($\overline{X}$ = 4.33, S.D. = 0.62), (vi) beyond the steady state (Y_8) ($\overline{X}$ = 4.32, S.D. = 0.64), (vii) boundary spanning (Y_7) ($\overline{X}$ = 4.31, S.D. = 0.64), and (viii) shared vision, leadership and the will to innovate (Y_1) ($\overline{X}$ = 4.28, S.D. = 0.62).

Part 3: Analysis of Quality System Management Affecting the Creation of Basic Education Schools in Nonthaburi Province as Innovative Organizations

The researchers used 351 responses to analyze the effects of the quality system management on creating the basic education schools in Nonthaburi province as innovative organization. Before the analysis, the researchers conducted outliers called Case Wise Diagnostics and found 13 abnormal case-wise data, thus eliminating them. Using Stepwise Multiple Regression Analysis, the results are shown in Table 4.

Table 4: Multiple-Regression Analysis of the Quality System Management Affecting the Creation of Basic Education Schools in Nonthaburi Province (Y_{tot}) as Innovative Organizations

Source of Variation	Sum of Square	df	Mean Square	F	Sig.
Regression	83.331	5	16.666	561.473*	0.001
Residual	10.241	345	.030		
Total	93.571	350			

Multiple Correlation Coefficient (Multiple R)			0.944	
Coefficient of Multiple Determination (R Square)		0.891		
Adjusted Coefficient of Multiple Determination (Adjusted R Square)		0.889		
Standard Error			0.172	

Quality System Management variables that were entered:

Variable Entries	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	.148	.082		1.809	0.71
Performance Results (X_7)	0.514	.041	.531	12.675*	.001
Strategic Planning (X_2)	0.104	.036	.106	2.859*	.005
Process Management (X_6)	0.138	.031	.157	4.439*	.001
Measurement, Analysis and Knowledge Management (X_4)	0.124	.031	.132	4.029*	.001
Leadership (X_1)	0.091	.025	.100	3.645*	.001

*Significant at the level .05

Table 4 reveals the quality system management affecting the creation of the basic education schools in Nonthaburi innovative as innovative organizations. (Y_{tot}) sorted the five best forecasters: (i) performance results (X_7), (ii) strategic planning (X_2), (iii) process management (X_6), (iv) measurement, analysis and knowledge management (X_4), and (v) leadership (X_1), with a multiple correlation coefficient (multiple R) of 0.944, a coefficient of multiple determination value (R^2) of 0.891, and an adjusted coefficient of multiple determination of 0.889. Strategic planning, process management, measurement, analysis and knowledge management and leadership appeared to predict the creation of the basic education schools in Nonthaburi Province as innovative organizations at 88.90% overall (Y_{TOT}), which was written as a regression analysis equation as follows:

$$\widehat{Y}_{tot} = 0.148 + 0.514X_7 + 0.104X_2 + 0.138X_6 + 0.124X_4 + 0.091X_1.$$

6. Conclusion and Discussion of the Results

As seen in the obtained results, the quality system management appeared to affect the creation of the basic education schools in Nonthaburi province as innovative organizations. The major findings based on the research objectives are reported in Section 6.1.

6.1 Conclusion

(1) The quality system management of the basic education schools in Nonthaburi province as a whole and in each aspect was at a high level and ranked in a descending order: (i) performance results, (ii) staff focus, (iii) strategic planning, (iv) student and stakeholder focus, (v) measurement analysis and knowledge management, (vi) process management and (vii) leadership,

(2) The creation of the basic education schools in Nonthaburi Province as innovation organizations as a whole and each aspect was at a high level and ranked in a descending order: (i) key individual, (ii) appropriate organizational structure, (iii) effective team work, (iv) creative climate, (v) high involvement innovation, (vi) boundary spanning, (vii) beyond the steady state, and (viii) shared vision, leadership and the will to innovate.

(3) The quality system management carried five variables: (i) outcomes, (ii) strategic planning, (iii) process management, (iv) measurement analysis, (v) knowledge management and leadership--all affecting the creation of the basic education schools in Nonthaburi Province as innovative organizations as a whole at 88.90%, written as a regression analysis equation:

$$\widehat{Y}_{tot} = 0.148 + 0.514X_7 + 0.104X_2 + 0.138X_6 + 0.124X_4 + 0.091X_1.$$

6.2 Discussion

The researchers discussed the obtained results in accordance with research objectives:

(1) The quality system management of the basic education schools in Nonthaburi Province, both overall and individually, was at a high level. School management at the basic education level in the modern era certainly requires effective management systems and methods to benefit learners. School administrators must plan their planning strategies, implement them, align personnel to suit the job (Organizing), and decentralize authority to colleagues (Empowerment). Good executives must know the control and evaluation of their work thoroughly and fairly (Controlling). The current administrators of Nonthaburi basic education schools have been recognized for their knowledge and experience. The implementation of quality system management by basic school administrators is considered to be of international standards as

prescribed in the policy of the Office of the Basic Education Commission (OBEC) that has adopted the guidelines for the management of the quality system of educational institutions toward excellence according to the criteria of Thailand Quality Award (TQA). The criteria of quality management system at the international standards are in seven categories: (i) Leadership, (ii) Strategic Planning, (iii) Student and Stakeholder Focus, (iv) Measurement, Analysis, and Knowledge Management, (v) Faculty and Staff Focus, (vi) Process Management, and (vii) Performance Results. Each category determines the course of action--how educational institutions should act. School executives must be good leaders, use key decision-making strategies, motivate, and build strength and encouragement for teachers to perform at their full capacity. More importantly, Nonthaburi is a city of education, and both district offices and local government organizations are committed to supporting education development with their full responsibility. These points were also reported earlier by Kadphon (2015) on quality system management that affects the effectiveness of schools under the Office of Nakhon Pathom Primary which investigated Educational Service Area District Office 1 regarding the quality management of schools under the Office of Nakhon Pathom Primary Educational Service Area District Office 1 at a high level with ranks in a descending order: (i) organizational leadership, (ii) strategic planning, (iii) student and stakeholder focus, (iv) personnel focus, (v) process management, and (vi) measurement, analysis and knowledge management. Another study by Wattana (2018) proposed the basic school management model for school excellence under the provincial administration organization. Wattana (2018) also identified six elements of school management for excellence: (i) executive leadership, (ii) teacher quality, (iii) strategic planning, (iv) collaboration network, (v) student quality, management and (vi) personnel development. The findings as such from the earlier studies pointed to the significance of the quality system management as examined in the present study.

(2) This research revealed the creation of the basic education schools in Nonthaburi Province as innovative organizations by the overall picture and individual aspect at a high level. This could stem from school executives handling education management by the policy of the Office of the Basic Education Commission (OBEC) and Nonthaburi Provincial Administrative Organization--both emphasizing innovations to meet the standards of school performance, and using digital transformation with unlimited interconnected communication. Transformational leaders highly value a shared vision with people, set the direction and implement a clear innovation strategy,

determination and dedication to the identified goal--all to create innovations within the school.

It is important that the organization structure be flexible at the appropriate level for promoting innovation. Information technology has been established to develop the websites for affiliated offices and use innovative media and computer programs through online teleconferencing. School executives need to promote key personnel with knowledge of innovation and make sure that teachers possess skills in innovation and technology. Participation in planning, creating and developing innovations and new technologies must be assigned to an effective team. Teachers need good working environment that promotes creativity while having good connections and networks to facilitate knowledge sharing in the long run. Such findings were in line with Onsampant (2018) who presented the concept of creating an innovative organization for basic education institutions in Thailand by using 12 elements: (i) School background, (ii) Shared vision and innovation goals, (iii) School implementation strategy, (iv) Executive leadership and decision making, (v) Appropriate organizational structure, (vi) Key personnel and personnel management, (vii) Effective teamwork, (viii) Communication and information management, (ix) Creative atmosphere, (x) Government and community support, (xi) Learning organization, and (xii) Performance evaluation. Recently, Hirankittikorn & Kanthap (2022) also researched into the needs for innovative organization of schools under the Phasi Charoen District Office. It was found that the innovative organizational development guidelines of schools under the Office of Phasi Charoen District, Bangkok comprised six approaches: (i) The organization's management should use the principle of decentralization and encourage personnel to participate in decision-making and organizing a flexible and agile organization structure; (ii) Personnel should be creative; (iii) Executives must develop a vision of innovation that is practical and drive the organization through the management system; (i) The organization's executives are leaders with a way of developing personnel by defining the vision of the organization for the staff to accept the direction toward innovations; (v) There must be a communication channel that promotes innovation; and (vi) The executives create an atmosphere of the organization to support freedom of thought for the staff to innovate.

(3) According to the research findings, five variables of quality system management were identified: (i) performance results, (ii) strategic planning, (iii) process management, (iv) measurement, analysis and knowledge management, and (v) organizational leadership. These five variables appeared to have impacts on the creation of the basic education schools in Nonthaburi

Province as innovative organizations. Overall, 80.70% showed that quality management was of paramount importance. The participating school administrators have focused on quality system management, taking into account administrative outcomes regarding the evaluation of school performance. They used the assessment results to improve the outcomes of academic and budget management and finances. The major findings of the present research were in line with the earlier work of Meeman & Wangthanomsak (2016) on international standard schools in that the success of international standard schools included (i) curriculum, (ii) teaching and learning, (iii) quality management, and (iv) learner aspects.

It should be noted that the process variable in quality system management affects the creation of an innovation organization. In this regard, strategic planning to realize the school's vision is vitally important. To the researchers of this present study, a SWOT analysis could help a strategic plan on technological progress, new knowledge, changing regulations, and direction to specific development in coping with the educational and social situation changes, as seen in the case of the COVID-19 pandemic. Another researcher Pamuta (2016) also studied success factors in managing international standard primary schools under the Office of the Basic Education Commission. It was found that the level of success in school administration as a whole also relied on five elements as reported in the present study.

For the success of the school, it is the responsibility of the management that consists of three tasks: personnel management, organization management, and process management to achieve the quality of work as intended. Teachers' core competencies aligned with the school's mission on excellence can help the school personnel to adjust teaching and learning methods at the critical time of the COVID-19 pandemic. As seen in the work of Chandi & Indraraks (2019), technological resources supported the quality system of Wat Maklua School (Kanchanalak Wittaya) at a high level by teaching and learning Online, On Hand, Onsite, and On Demand by qualified teachers.

As for the variable of measurement, analysis, and knowledge management affecting the creation of innovative organizations, school administration has to turn digital. When Thailand faced the COVID-19 pandemic, teaching and learning arrangements had to change by going online while ensuring that teachers and students interacted sufficiently to create a positive remote teaching-learning atmosphere online and reasonable student performance assessment. Students are sufficiently assisted to reach the expected learning outcomes. Chandi & Indraraks (2019) created academic templates available to users worldwide. Phothong et al. (2013) also supported

the key elements, such as personnel/ organization, budget and facilities, process, organizational leadership, strategic planning, and knowledge management for teachers/ students/ parents.

7. Suggestions

7.1 Suggestions for the Implementation of Research Results

The innovative organizational model in basic education institutions is a structured model with various elements as applicable to school quality system management. As shown in this present study, the quality management factors that affect the creation of basic education schools as innovative organizations could be selected to suit school contexts as seen appropriate.

7.2 Suggestions for Further Research

The school quality system in support of teachers and learners should be further explored to benefit the overall educational quality under the Office of the Primary/Secondary Education Area Office. In addition, those interested in the issues of quality system management could update and expand the number the new variables that influence innovative organizations in the basic education schools in the context of Thailand as well as that of the neighboring countries.

8. Acknowledgements

9. The Authors

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The Scope and Limitations of Contemporary Chinese Media Culture Research: A Visualization Analysis Utilizing CiteSpace

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Abstract

The paper aims to encapsulate key trends in publication, prolific authors, research domains, and prevailing topics on Chinese media culture research. Drawing upon the China National Knowledge Infrastructure (CNKI), this study conducts a quantitative analysis of 602 Chinese media culture research outputs from 2000 to 2023 using the visualization method of scientific knowledge graphs. Concurrently, the research highlights some significant findings regarding the publishing trend, media culture research exhibiting a fluctuating progression, and the growth rate transitioning from a gradual to an accelerated pace. The researchers considered the Chinese media culture study landscape as characterized by a mononuclear development model with an over-reliance on key figures, and a dearth of collaboration among researchers and research institutions. This paper identifies current limitations, particularly imbalanced and underdeveloped aspects within Chinese media culture research, a noticeable absence of quantitative research methods, and a prevailing reliance on subjective content interpretation. The researchers also projected a trend prioritizing macro aspects while overlooking micro aspects, along with a relative neglect of public perspectives on influencing factors of media culture. Given these findings, scholars and institutions can gain benefits from the core research circle through collaboration for a comprehensive elevation of academic contributions in this field. In addition, they can explore novel research avenues, bolster research on weaker aspects, and delve into the development of localized theories of their interest.

Keywords: CiteSpace, visualization, visualization analysis, media culture, Chinese media culture, knowledge management

1. Introduction

The advent of the media technology revolution, characterized by advancements, such as artificial intelligence, algorithms, big data, and 5G technology, has insinuated itself into every facet of social life, reshaping human behavior and modes of thinking (Luo & Jiang, 2023). As a cultural phenomenon, media culture has continuously expanded, mirroring the society-wide proliferation of mass media, and exerts substantial influence on its audience (Jensen, 2020). Thus, scrutinizing the developmental trajectory and existing issues of media culture research holds crucial practical significance for fostering the growth of media culture (Skinner et al., 2022).

At present, Chinese media culture exhibits considerable vibrancy, and the export of Chinese culture is continuously on the rise (Zhang & Ong'ong'a, 2022). At the strategic national level, China has placed a premium on the construction of international communication capacities, striving to establish a comprehensive financial media matrix and a uniquely Chinese communication system (Zhuang & Zhou, 2023).

Over 10,000 Chinese internet literary works have found audiences overseas. Of these, more than 4,000 physical books have received publication rights and over 3,000 translated works have been released online. Websites and reading apps catering to these works have attracted subscriptions from over 100 million users, spanning most countries and regions across the globe, thereby achieving remarkable results in international communication (Florido-Benítez, 2022). Internet literature initially proliferated in Southeast Asia, Northeast Asia, and North America before spreading to Europe, Africa, and eventually worldwide. Online reading enjoys widespread popularity in the United States, Canada, France, Spain, and other Western countries, while African nations display a strong preference for overseas platforms and authorized app works (Sakai et al., 2023).

Chinese TV dramas have gained traction in various overseas countries and regions. This not only promotes Chinese culture but also continually enhances the competitive edge of Chinese cultural offerings (Cao et al., 2022).

Therefore, the dissemination of Chinese media culture is a potent exemplar, capable of offering ample empirical references for the global study of media culture (Fang & Repnikova, 2022). This paper, by cataloguing the knowledge structure and development trend in the field of Chinese media culture research, elucidates the academic frontiers, charts the academic genealogy of media culture research, and dissects the developmental laws in this field. It presents a multi-faceted snapshot of the evolution of Chinese media culture research, thus providing direction and guidance for future global media culture research.

This study uses CiteSpace visualization software to comprehensively analyze publication quantity, researchers, research fields, and research hotspots. Through statistical analysis of relevant data and texts, it sketches a panoramic view of the evolution of Chinese media culture research over the past two decades and carries out a holistic, comprehensive, and dynamic visualization analysis. Utilizing bibliometric analysis to investigate media culture research is a significant approach, as it elucidates the development of media culture research and showcases the current research status of media culture through quantitative analysis (Garcia, 2023). Moreover, this method has considerable application value for theoretical innovation and the evolution of media culture research (Li et al., 2023; Luo et al., 2022).

2. Literature Review

2.1 Media Culture

Media culture is a term used to describe the current Western social formation where media and technology (television, newspapers, radio, film, and the internet) play a pivotal role (Cao, 2023). This concept suggests that images, sounds, and textual representations become vital in influencing and shaping culture and individual perceptions of the world. In media culture, the media are not only tools for communication but also

engines of cultural and social change. They are central to politics, the economy, education, and almost every other aspect of society. The study of media culture involves understanding the forms, techniques, and strategies used by the media, as well as how audiences understand and use media products (Woodcock & Johnson, 2019). Media culture encompasses various elements, including but not limited to: popular culture, representation, media influence, media literacy, media production, and technological impact (Tugtekin & Koc, 2020). Given its ubiquity, media culture significantly affects the formation of individual identities, societal values, cultural perceptions, and the fabric of social life (Levin & Mamlok, 2021). Consequently, the study of media culture is important in understanding contemporary society.

Gender issues and fan studies also feature prominently in this discourse. Kamble et al. (2020) presented a comprehensive review of these fields, exploring how concepts of femininity, masculinity, and queerness have been researched and represented. This includes a transition from early work with subcultures to more recent work involving online communities.

Assessment of different media in cellular studies is also a crucial focus, as demonstrated by Broadbent et al. (2020), who assessed two different media, Promocell and PneumaCult, during the differentiation and maintenance of well-differentiated primary nasal epithelial cell cultures (WD-PNECs).

Consequently, given the abundant content within current media culture research, it becomes imperative to consolidate these relevant findings. While visual analysis in media studies is not a novel concept, the importance of media culture in contemporary times cannot be understated, especially considering its significant contribution to society's sustainable development. This research presented herein collates the extant visualization findings within media studies, thereby offering a comprehensive overview of the field.

2.2 Visualization of Media Research

Li et al. (2019) used the Web of Science (WoS) database to analyze themes, evolution, and research trends in LIS from 1989 to 2018 using CiteSpace. They identified influential teams, such as the Wanggen Wan team at Shanghai University and the Haoran Xie team from City University of Hong Kong, indicating the maturation of the field.

Wang et al. (2020) investigated the hotspots of Social-media Big Data (SMBD) in recent years. They provided a summary of the frontier of SMBD based on keywords and co-citation literature, including the deep excavation and construction of social media technology, the reflection, and concerns about the rapid development of social media, and the role of SMBD in solving human social development problems.

Another notable study by Lu et al. (2020) aimed to identify the most pressing topics of social media and government trust research as represented in the existing literature. They presented an in-depth analysis of social media and government trust research to better understand governance and emerging directions in this field over the past 19 years. A scientometric analysis on the topic "Oil and petroleum products in soil and groundwater" was conducted by Busygina and Rykova (2020) using a documentary array selected from the Web of Science database. Their research further underscores the increasing utility of scientometric analysis in various fields.

Meanwhile, Xie et al. (2021) conducted a scientometric analysis of maternal health in the new media environment. They analyzed the top countries and institutions, potentially high-impact literature, research frontiers, and hotspots. This provides a valuable new dimension in understanding the factors that can influence the adoption of new research methodologies or technologies.

Meanwhile, Huang et al. (2022) used the CiteSpace software to summarize available data from 6,756 publications (2000-2022), providing insights into the specific characteristics of PFASs and showing global development trends that can be used for future research directions. Their work offers a novel method for quantitatively visualizing information about the development of this field over the past 23 years.

Finally, Lu et al. (2023) sought to understand the research status of the relationship between health communication and the doctor-patient relationship. They adopted qualitative methods to quantify the literature over the past 10 years in the Web of Science database and carried out Co-Authorship Analysis, Co-Citation Analysis, and Co-Occurrence Analysis based on CiteSpace, illuminating the nexus between health communication and healthcare interactions.

Despite the considerable accomplishments made using Citespace within the academic community, visual analysis of media culture remains largely unexplored. Consequently, creating a knowledge map of media culture utilizing Citespace presents an innovative approach. This methodology facilitates the interpretation of media culture's development from various perspectives, thereby offering comprehensive insights for future media culture research. Moreover, it contributes to fostering sustainable development within the media industry.

3. Research Methods

CiteSpace, an information visualization software uses the Java language, currently as the most widely utilized tool for visualizing scientific knowledge. By employing CiteSpace, the researchers were able to effectively illustrate the contextual landscape of a specific research domain, allowing the intuitive depiction of hidden patterns within extensive datasets that might otherwise remain elusive. The implementation of automatic clustering within CiteSpace relies on the spectral clustering algorithm, which inherently offers advantages for clustering tasks that are based on link relationships within co-citation networks, rather than node attributes. This feature enables the researchers to comprehensively *synthesize literature* from various disciplinary perspectives, facilitating a comprehensive, systematic, and objective understanding of a given knowledge field. The visualization technology makes possible the precise analysis of extensive research documents, thereby facilitating comprehensive examinations of changes and development trends pertaining to prominent topics within a specific field (Li et al., 2023).

Currently, very few scholars in China have utilized science-based methods to analyze Chinese media culture studies. This paper therefore adopts the bibliometric method and CiteSpace visualization tool to integrate the co-occurrence of keywords and the changes and development trends of media culture research hotspots, so as to capture an overall picture and provide references for the future research of Chinese media culture.

A total of 602 valid literature items were obtained from the China National Knowledge Infrastructure (CNKI) with the title of "subject = 'media culture.'" The obtained data were exported in txt file format, named with CiteSpace recognizable file name and processed. The time span of this paper was from 2000 to 2023. The inclusion and exclusion criteria of this paper were as follows:

Inclusion criteria: (1) literature related to media culture, and (2) published between 2000 and 2023.

Exclusion criteria: (1) duplicate publications, and (2) experience exchange, review and other documents.

4. Results

4.1 Trend of Publications

The quantity of articles published within a specific timeframe provides insights into the developmental characteristics of a particular field. This study retrieved a total of 602 relevant literature sources. By importing these 602 data points into Excel, the annual publication count can be swiftly obtained. Drawing upon this data, a graphical representation depicting the trend of core research on media culture from 2000 to 2023 can be deduced (see Figure 1). Figure 1 illustrates a fluctuating increase in the annual publication count over the years. Based on the trend depicted by the curve, core research on media culture can be broadly categorized into four distinct stages: the initial stage (2000-2004), the low stage (2005-2012), the development stage (2013-2018), and the decline stage (2018-2023).

During the initial stage, the annual publication count ranged from 1 to 11, indicating a limited research base and a lack of widespread interest within the core research community toward the concept of media culture. Most studies during this period focused on the traditional understanding of popular culture and drew upon existing works by Western scholars. At the turn of the 21st century, mass media was primarily perceived as a communication tool, and the researchers rarely explored its cultural functions. Apparently, the concept of media culture had limited exposure among scholars.

In the low-grade stage, the annual publication count ranged from 5 to 25 papers. This represents notable progress compared to the initial stage, indicating an increasing number of Chinese scholars becoming acquainted with the concept of media culture and conducting research in this area. Additionally, the rapid development observed during this stage signifies that more scholars have recognized the significant impact of media culture on the audience, coinciding with the rapid expansion of the media industry.

In the development stage, the annual publication count ranged from 30 to 60 papers, demonstrating a substantial increase in the number of published articles. This indicates that the concept of media culture began to capture the attention of scholars within the core research community, displaying a trend of fluctuating development. Concurrently, the period witnessed rapid advancements in new media technologies, enabling the media to facilitate public acceptance and engagement with social culture through a diverse range of media formats. Consequently, the cultural attributes of the media garnered attention from the researchers concerned.

As for the declining stage, the annual publication count ranged from 25 to 50 papers, representing a decrease compared to the development stage. During this phase, external communication entered its third wave, and media integration reached a new stage. The rapid development of the all-media landscape in China, including the vigorous development of county-level media and four-all media, attracted more researchers to focus on the integration of traditional and new media platforms.

Figure 1: The Number of Pubications in Graph of Annual Publication Volume
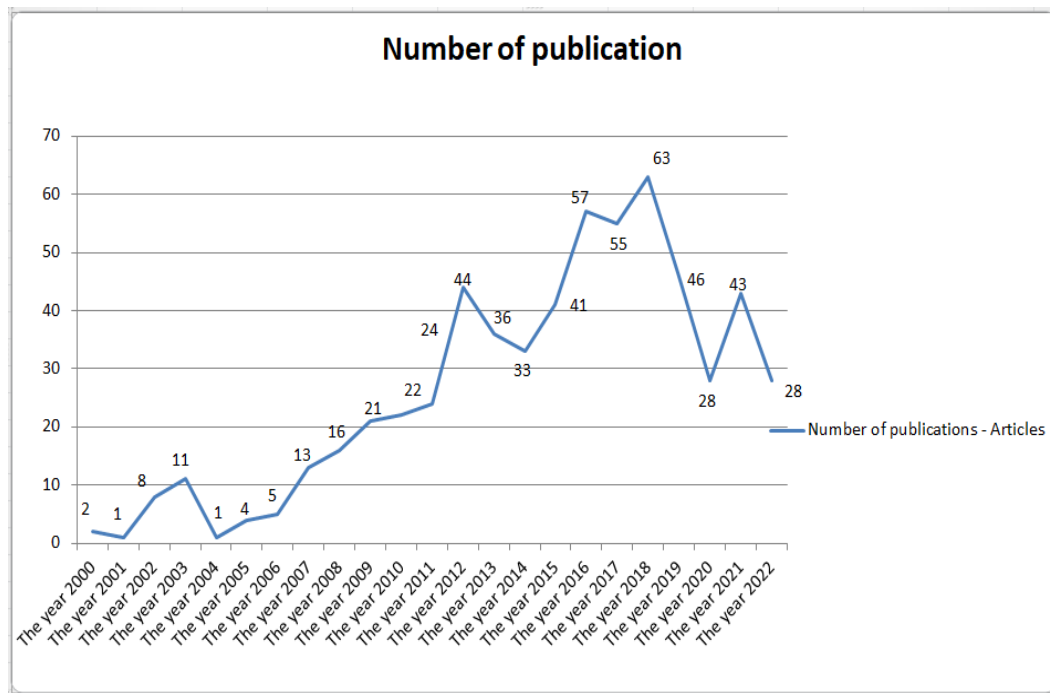

4.2 Knowledge Map of Authors' Cooperation

With the utilization of CiteSpace software, the researchers conducted a visual graph analysis on a dataset comprising 602 data items, with the node type set as "author." This analysis was shown in Figure 2 below. The information displayed in the top left corner of the figure provides key data, including "N=" and "E=" values. "N" represents the nodes, which in this case are the authors appearing in the dataset. The font size of an author's name corresponds to the frequency of their appearance in the data. On the other hand, "E" represents the edges, indicating the co-occurrence of authors within the same literature. Thicker lines between nodes signify a higher frequency of co-occurrence, thereby revealing the collaborative relationships between authors.

In the author co-occurrence map, there are 423 nodes (authors) and only 65 lines (edges) indicating cooperative relationships. It is noticeable from the figures that there are limited connections among some authors, including several prominent ones, such as Peng Lan, Jiang Yuanlun, and Shu Yijian. This suggests a lack of collaboration among researchers within the field of media culture.

The visualization results provided in Figure 2 offer valuable insights into the collaborative dynamics within the research community, highlighting both the presence of

limited connections among certain authors and the significant contributions of key researchers. By analyzing the cooperative relationships depicted in the graph, the researchers of the present study were able to gain a deeper understanding of the collaboration patterns and potential areas for fostering further cooperation within the field of media culture.

Figure 2: Authors' Linkage Map
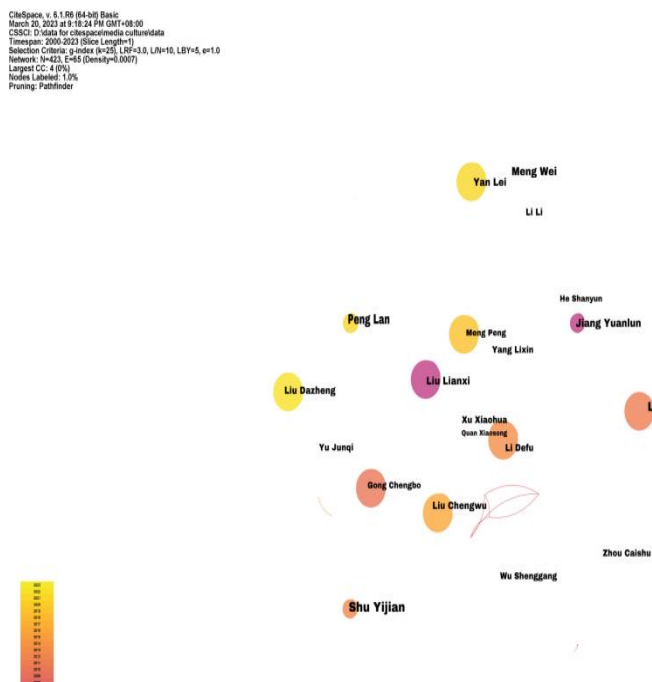
As seen, the Author Analysis feature of the CiteSpace software, the data on the top 9 most prolific authors were extracted and organized into Table 1 below. Among them, Peng Lan, Yang Lixin, Jiang Yuanlun, and Shu Yijian have published the highest number of articles, with each author contributed three articles. The remaining authors in the top 9 list have mostly published one or two articles. When combined with the information from Figure 2, it shows that research on media culture in China has followed a single-core development model, with a small group of core members occupying significant positions and playing pivotal roles. By integrating the data from relevant keywords in the two figures, the researchers of the present study identified the primary research areas within media culture by the core research group.

The data provided in Table 1 highlight the prominent role of a few core authors in media culture research, while also indicate that other authors have made significant contributions with one or two publications. This point, in combination with the information derived from Figure 2, reveals the single-core development model observed in Chinese media culture research. By considering the data from relevant keywords in both figures, the researcher of the present study identified the primary research areas in media culture by the core research group, and gained   insights into the key focus areas of media culture research in China.

Table 1: Information on 9 Productive Authors

| Serial number	Author	Number of publications	Initial publication year
1	Yang Lixin	3	2002
2	Shu Yijian	3	2012
3	Peng Lan	3	2003
4	Jiang Yuanlun	3	2002
5	Zeng Yiguo	2	2016
6	Liu Lianxi	2	2011
7	Yu Xiaozhi	2	2017
8	Yan Lei	2	2021
9	Li Defu	2	2013

4.3 Keywords Co-occurrence Map

By selecting the "Keyword" node type in the CiteSpace interface, the researchers conducted a visual analysis of the scientific map, and concluded with a keyword co-occurrence map displayed in Figure 3 below. The keywords in the map are clustered based on correlation algorithms, leading to the keyword clustering map depicted in Figure 4. The cluster map highlights structural features between clusters, emphasizing key nodes and significant connections. By integrating the data from relevant keywords in both figures, the researchers analyzed the primary research fields within media culture in the core research community.

In Figure 3, keywords, such as media culture, cultural communication, new media culture, and media spectacle appear with larger sizes, indicating their high frequency of occurrence among 602 documents analyzed. It can be noted that other keywords with relatively smaller sizes are also present, including cultural studies, public domain, and media convergence. This indicates that the culture-media scholars have continued to address various topics within the field, showing a broader range of research interests.

Chinese media culture studies primarily focus on investigating media culture from different modes of expression. The key terms in this domain include "new media" and "new media culture." Furthermore, media culture studies place an emphasis on quality education, as reflected by keywords, such as "media literacy education" and "media literacy." Additionally, media culture research encompasses the innovation and dissemination of culture, with relevant keywords including "cultural communication" and "media convergence."

By analyzing the keywords presented in both Figures 3 and 4, the researchers of the present study were able to gain a comprehensive understanding of the main research fields within media culture, as pursued within the core research circle.

Figure 3: Keywords Co-occurrence Map
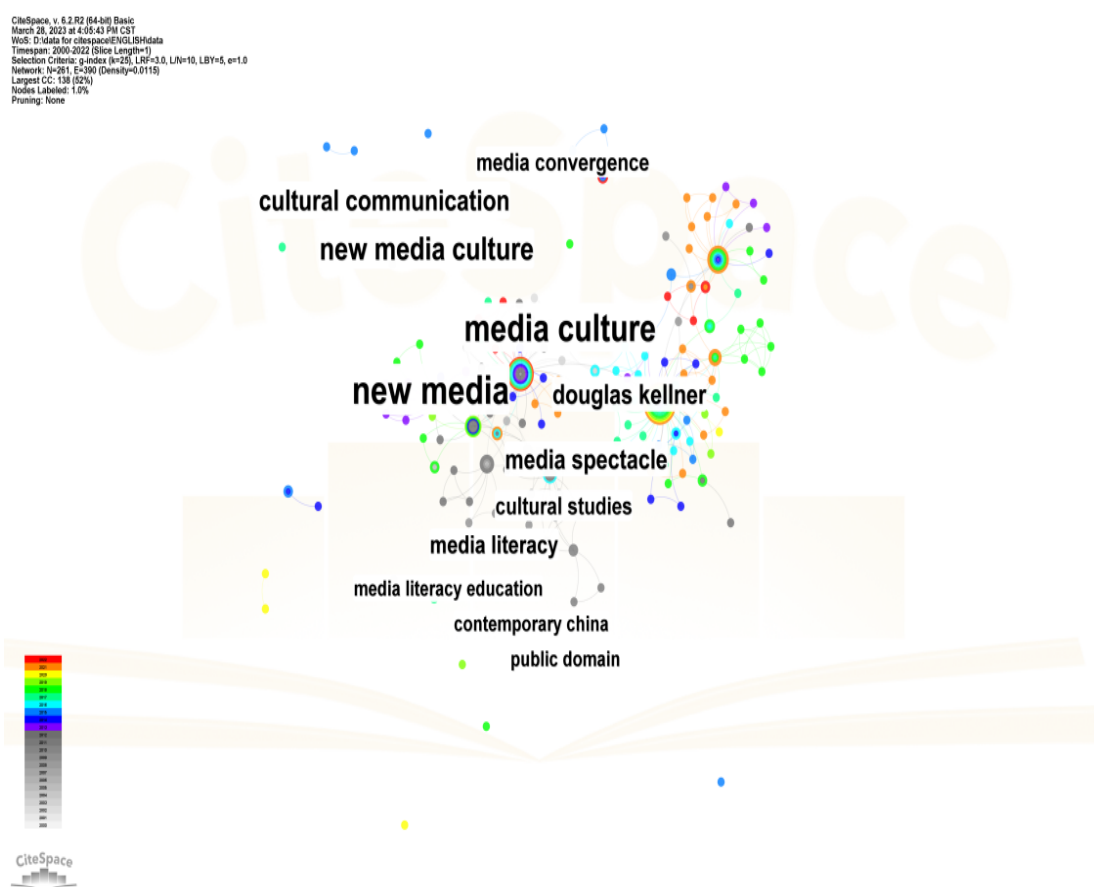
To enhance the precision of summarizing the research field, this paper utilizes CiteSpace's keyword clustering function to identify closely related keywords in Figure 3, resulting in the formation of keyword clusters. The obtained keyword clustering map is presented in Figure 4, revealing 7 distinct clusters of the research on Chinese media culture. CiteSpace provides two metrics, namely the modularity value and the average silhouette value, which are based on the definition of network structure and clustering. A modularity value above 0.3 indicates a significant clustering structure, while an average silhouette value of 0.7 suggests a convincing clustering result.

The data displayed in the upper left corner of Figure 4 indicates a modularity value of 0.8625 and an average silhouette value of 0.906. These values confirm that the clustering structure within the clustering map is highly significant, and the obtained results are compelling.

By employing the keyword clustering function of CiteSpace and evaluating the modularity and average silhouette values, this study ensures the reliability and validity of the clustering analysis, enabling a robust and trustworthy identification of distinct clusters in the research on Chinese media culture.
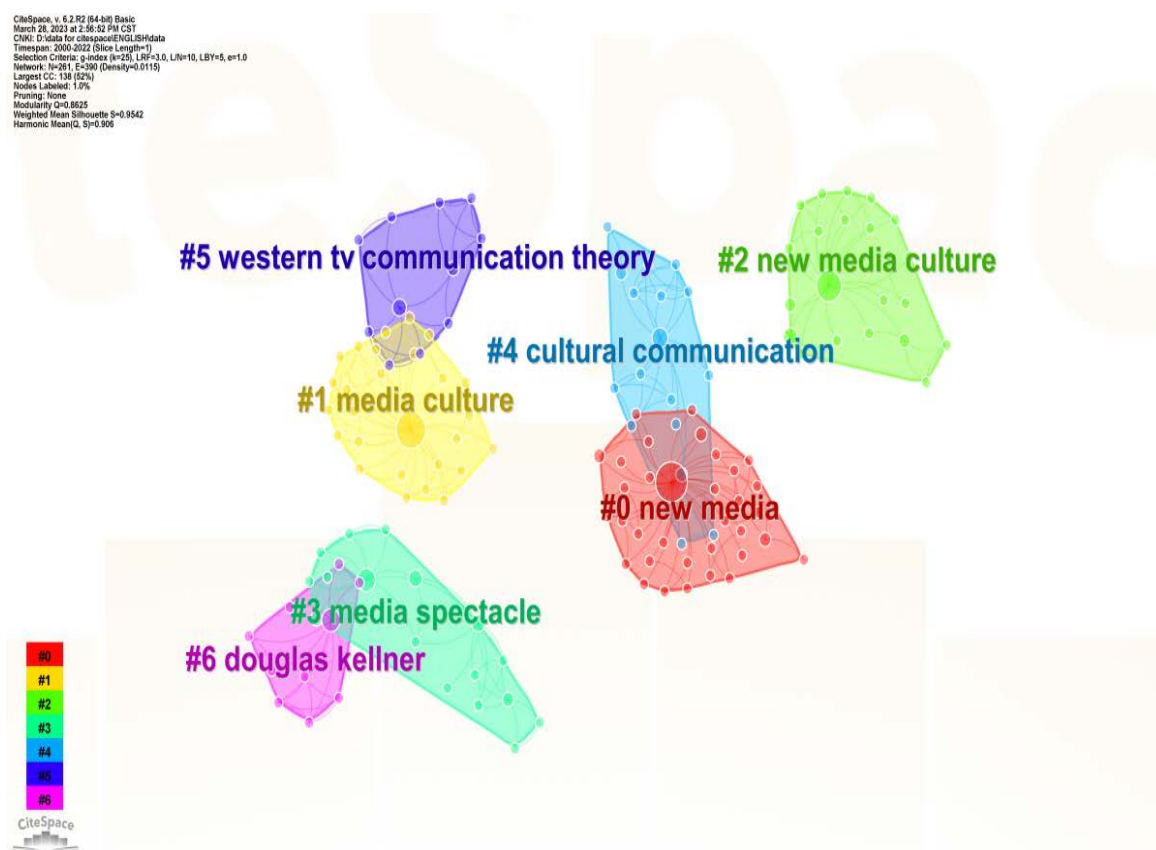
Figure 4: Keywords Clustering Map

Figure 4 depicts the cluster sizes in decreasing order, indicating the number of literature items in each cluster. Table 2 captures the relevant data from the CiteSpace cluster, and highlights the topmost representative keywords from each cluster. These keywords identify the research field of Chinese media culture in the core research community. By conducting an integrated analysis of the keywords in Table 2 and the keyword information in Figure 4, the researchers classified Chinese media culture into three areas:

(1) From the perspective of the media industry orientation: This area encompasses research topics, such as new media, new media culture, and media spectacle. Examining media culture from this angle focuses on the orientation and characteristics of the media industry.

(2) From the perspective of cultural studies in media culture: This area explores cultural communication and media culture as key research themes. Understanding media culture through the lens of cultural studies delves into the cultural dimensions and communicative aspects in this field.

(3) From the perspective of theoretical research in media culture: This area encompasses theoretical perspectives within media culture, including Western TV communication theory and the work of Douglas Kellner. Researchers in this area tend to analyze and advance theoretical frameworks to project a clear picture of media culture.

By categorizing the research on Chinese media culture into these three areas, this study provides a comprehensive overview of the key themes and focal points within the field.

Table 2: Cluster Summary

| Cluster	Quantity	Silhouette	Origin year	Representative keywords in the cluster
#0 New media	35	0.973	2015	New media;The new media culture；Information culture；Cultural transmissiion
#1Media culture	27	0.897	2012	Media culture;mainstream quidance
#2New media culture	22	0.989	2017	New media culture；Ideological and political education
#3Media spectacle	17	0.955	2011	Media literacy；Media education；Meida spectacle
#4 Cultural communication	17	0.966	2016	Social media；Cultural communication；network media
#5Wesern tv communication theory	11	1	2009	Cultural studies;Contemporary china
#6Douglas Kellner	10	0.898	2014	Douglas Kellner；iner tension

4.4 Keyword Co-occurrence Map

The keyword co-occurrence map presented in Figure 4 is transformed into a keyword timeline view; and when combined with the research breakout points from 2000 to 2023 as summarized by CiteSpace, it facilitates the identification of research hotspots in different stages. Keywords serve as a means to refine the article content and identify core perspectives. The timeline representation of keywords with high frequency of emergence effectively reflects the research hotspots and evolutionary trends within media culture.

Figure 5, displaying the keyword timeline, illustrates that early-stage research primarily focused on fundamental categories of media culture. From 2000 to 2005 in the 21st century, the research content centered around the development of mass media, its cultural aspects, and its influence. Starting in 2005, China's media industry underwent a rapid development phase. Consequently, the research content shifted its focus toward the development of we media and new media. After 2010, Chinese media culture continued to undergo constant adjustment and change, leading to the exploration of new avenues for media development becoming the primary research focus in the present era.

By utilizing the keyword timeline approach, this study comprehensively captures the evolving research landscape in media culture, providing valuable insights into the shifting research priorities and emerging trends across different stages.

Figure 5: Keywords Time Diagram
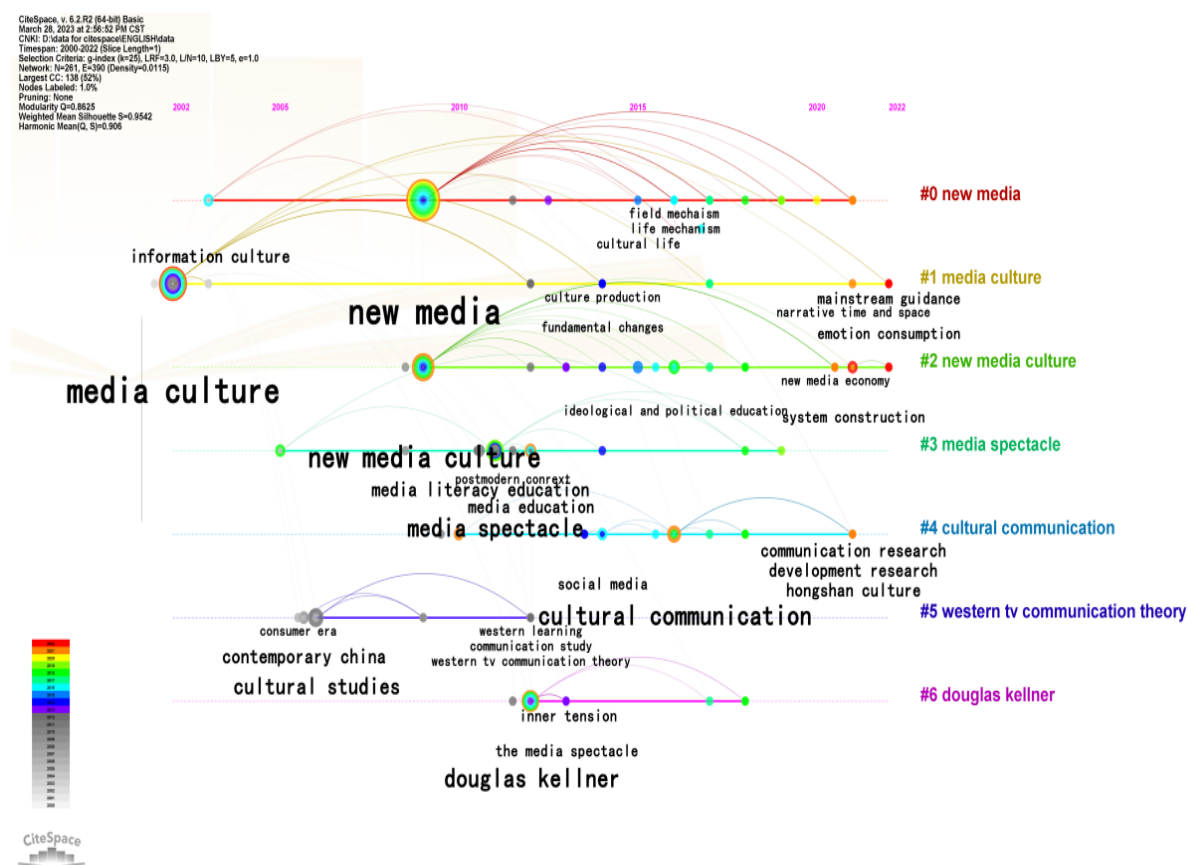
Utilizing CiteSpace's breakout point summary function, this study precisely identifies the research hotspots in different stages, as depicted in Figure 6 below. By combining the historical background and keyword burst point map, the researchers divided hotspots into the following stages:

(1) Starting from 2010, China has increased its emphasis on the cultural development of colleges and universities, urging educational institutions to foster a positive cultural atmosphere and encouraging college students to establish socialist core values. Consequently, research during this period primarily focused on the cultural construction of colleges and universities.
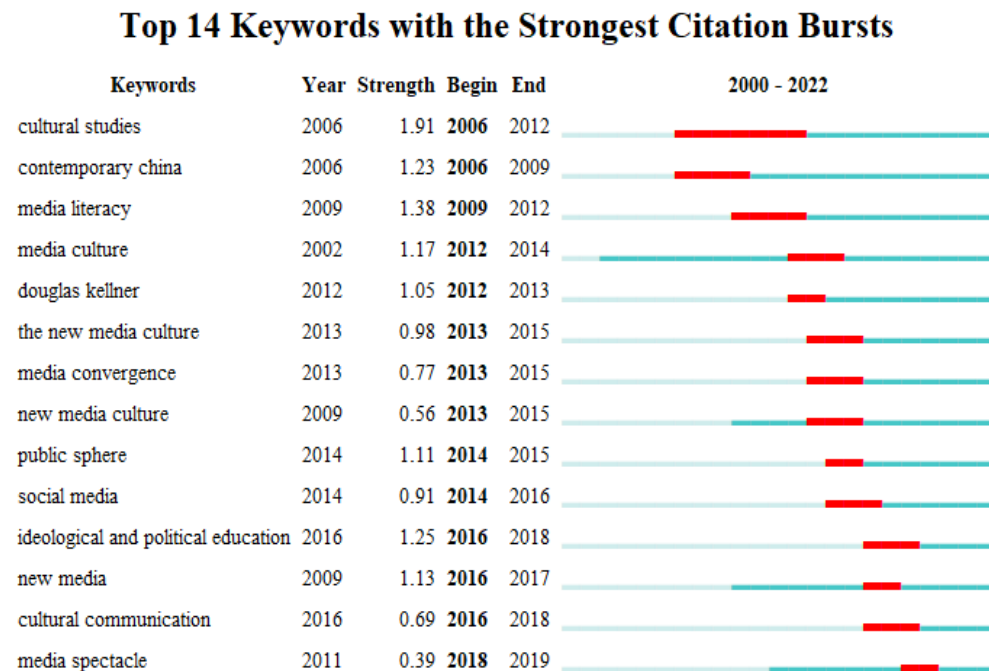
(2) From 2014 to present, the stage of media convergence has emerged. In August 2014, the Fourth meeting of the Central Leading Group for Deepening Overall Reform deliberated and adopted the Guidelines on Promoting the Integrated Development of Traditional and Emerging Media. Subsequently, China made significant efforts to establish new and competitive mainstream media in various formats, utilizing advanced means, and forming a multidimensional, diverse, and integrated modern communication systems. Consequently, research during this period not only addressed the cultural function of media but also emphasized the cultural integration between new and old media platforms.

(3) Since the beginning of the 21st century, two notable trends have shaped the media culture research landscape. Firstly, there has been rapid development in television media. Secondly, the emergence of the internet and new media platforms has revolutionized

information production, visualization, and distribution. Concurrently, the rise of user-generated content through new media has empowered ordinary individuals with the ability to disseminate information. Consequently, research focus gradually shifted from television media to new media platforms during this period.

By identifying these distinct stages and corresponding research focuses, the researchers of tye present study have provided insights into the dynamic nature of research in Chinese media culture over time.

Figure 6: Keywords Burst Point Map

Top 14 Keywords with the Strongest Citation Bursts

Keywords	Year	Strength	Begin	End	2000 - 2022
cultural studies	2006	1.91	**2006**	2012	
contemporary china	2006	1.23	**2006**	2009	
media literacy	2009	1.38	**2009**	2012	
media culture	2002	1.17	**2012**	2014	
douglas kellner	2012	1.05	**2012**	2013	
the new media culture	2013	0.98	**2013**	2015	
media convergence	2013	0.77	**2013**	2015	
new media culture	2009	0.56	**2013**	2015	
public sphere	2014	1.11	**2014**	2015	
social media	2014	0.91	**2014**	2016	
ideological and political education	2016	1.25	**2016**	2018	
new media	2009	1.13	**2016**	2017	
cultural communication	2016	0.69	**2016**	2018	
media spectacle	2011	0.39	**2018**	2019	

5. Discussion and Conclusion

After decades of national development, Chinese media culture research has made considerable progress, but there are still some limitations that need to be addressed urgently. This paper intends to list such drawbacks in the research process by referring to relevant literature, and give practical suggestions.

First of all, the research on Chinese media culture is still not well-balanced. According to the above data analysis, it can be seen that there is not much cooperation and contact between research authors and research institutions, and the core research circle focuses on the existing foreign research on media culture. Li et al. (2023) sorted out and summarized Kellner's media culture theory, and analyzed the wonders of today's China based on the media culture theory generated by the Western social environment. Ordinary people need to strengthen their media literacy education, and researchers could have paid more attention to critical research on media culture. It can be noted that the previous media culture studies focus on summarizing the development of foreign media culture studies, rather than investigate specific issues on the actual media-cultural development of China. Therefore, it is necessary to strengthen cooperation among Chinese researchers to create and develop media culture theories and systems in line with Chinese localization.

Secondly, there is a lack of quantitative research on Chinese media culture. At present, scholars in China's core research circle prefer qualitative research, and few studies tend to adopt quantitative research methods. As seen, subjective content interpretation serves as the main method, and objective analysis by scientific measurement tools is rarely used. Li and Zong (2022) analyzed the reform and innovation of new media culture in colleges and universities from the aspects of top-level design in colleges and universities, the quality of new media practitioners, the content and services created by new media, and the scenes of constructing cultural characteristics. They fully discussed the trend, guidance and regulations of new media culture in colleges and universities. However, the guiding significance toward qualitative practice could be rather weak in contrast with quantitative research with quantified data. Both qualitative and quantitative methods could be used to obtain two sets of data so that the results could be concluded more objectively and convincingly.

To the researchers of this present study, Chinese media culture research tends to be more of a macro than micro phenomenon. At present, scholars in the core research circle mainly focus on the evaluation of the characteristics, influence and effect of media culture in the study of the basic category of media culture, the problems in the development process of media culture and the direction of media culture (Plantin & Punathambekar, 2019). Dunas & Vartanov (2020) pointed out from the perspective of cultural consumption that in the context of new media, media culture consumption shows a brand-new look, derived from the characteristics of technology, popularization and globalization, and its consumption subject, consumption means, consumption scene and consumption content also change. Researchers' understanding of media culture rarely starts from the generation of the cultural variety and its interaction with the public. To approach such a limited research scope, scholars need to uphold the consciousness of inquiry, break away from the macroscopic analysis of media culture, and try to broaden the research idea of media culture research.

6. Recommendations

Based on the major findings on Chinese media culture under study, the researchers would like to recommend the following:

(1) Media culture researchers may consider adding the dimension of quantititave research into their work so that there will be a good balance in providing evidences from two sources—both subjectively and objectively.

(2) It is crucial to enhance the localization of Chinese media culture studies. While there are notable differences and unique focuses in Chinese media culture compared to foreign counterparts, there is a lack of distinct research topics that truly embody Chinese characteristics. Therefore, it is imperative for China to establish a research system that reflects its own cultural context as soon as possible.

(3) It is essential to expand the scope of Chinese media culture research by exploring interdisciplinary approaches. Media culture as a subject encompasses various disciplines, such as pedagogy, politics, sociology, and other subdisciplines in social sciences. By integrating other disciplines, the research landscape can be broadened, enabling a deeper understanding of media culture through systematic thinking.

In closing, the researchers have acknowledged the rapid growth of social media platforms like Douyin and WeChat as contributing to the research development of cultural phenomena and media culture. Media culture research is still a relatively new field, requiring researchers to boldly explore beyond the existing communication theory and expand the foundational framework of media culture. With high-capacity digital technology and new platforms, researchers can pave their way for further advancements in meaningful media culture research.

7. The Authors

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Sharing Professional Viewpoint
Short Videos Could Be a Threat to Users

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1. Opening Point

Short videos could be a threat to users. In recent years, short videos have been prevailing among people of all ages. Since most of the short videos are funny and creative, people are willing to accept them and watch them, especially for those who are occupied by stressful work, they can obtain pleasure and refreshment from them (Wang, 2017); and some of the old people are really fond of browsing short videos to kill their retirement time. As in Einstein's saying: *During peacetime, science makes our life a hurry and instability. It frees us from large physical exertion, but it makes people become slaves of machines.* We are now well aware of the technology paradox playing out in real life. As a more and more obvious phenomenon, short video addiction brings new anxiety to the society.

2. Possible Effects

With the popularity of short video apps surging, something noteworthy is that the majority of people are so addicted to short videos that they spend too much time in lowering their heads to slip phone screens. Long-term short video exposure can bring about direct damage to our spines and eyes. Briefly, when focusing on the phones, we unconsciously become bend over and head lowering, which definitely will burden the spines. In terms of the harm to eyes, excessive eyes fatigue can give rise to these consequences such as decreased vision, sensitive eyes and related symptoms. U.S. Surgeon General Dr Vivek Murthy has worried about the public-health crisis of our time regarding the mental health and well-being of young people, particularly how social media in particular impacting children's emotional states, brain development, and social growth (Park, 2023).

What is more, sparing time to watch these varieties of videos amounts to losing the time to read books or work. People at present are rich in goods but tend to be ragged in spirit. It leads to encouraging internally individuals' inertia, not being enthusiastic about deep thinking, even obliterating the ability to dig deep into problems. Some researchers pointed out that people are more apt to be satisfied with easily obtained information (Kugler, 2016; Lin et al., 2022). As a result, they could lose demand and patience for information. The more time you waste on watching videos, the less you spend on self-improvement. The genuine book-lovers have stark advantages over those phone lovers. The stored ideas they

derive from the printed pages are known to make them wise, eloquent and logical in expressing their viewpoints.

3. Current Happenings

As known currently, ever advancing algorithms are conjured and applied to use every day to maintain the viscosity of users (Fensenthal, 2023). For instance, the TikTok recommendation algorithm can be adjusted to apply for individual preference and tendencies. All the content feeds are what they enjoy, secretly stealing time from work and normal human interactions. Many youngsters complain that these apps alienate family members by absorbing their time and attention which can otherwise be given to each other. Seeing them swiping their cellphones on the sofa aimlessly making it harder to communicate feelings, thus deepening the gap between the two generations.

Undoubtedly, short video apps have had a strong impact across the world. Again, let's take Tik Tok as an example: this mobile application, had released only several years, has become a phenomenal short video platform with more than 200 million daily active users. This platform makes opportunities available to many common people and there has emerged a quantity of social media celebrities. This is a vast stage that anyone can show his or her talents to us. It is noticeable that Tik Tok has contributed to poverty alleviation and employment. Particularly, the emerging live selling in the short video platforms plays a crucial role in promoting produces for farmers in remote areas.

4. What to do?

However, short videos will take up most of our time which should have been used to do something meaningful and healthy. As an old Chinese saying goes: concentrating on the minor matters means neglecting the major ones. That is to say, we should cherish time and do meaningful things. If we become addicted to short videos, in the long run, the old will lack adequate exercise and get weak; the middle-aged will find it difficult to concentrate on work and the young may have no motivation to study hard, which is doom and gloom for society.

5. Closing Point

In all, the short video app itself is devised to satisfy people's entertainment meets and spice our daily lives, while surfing these apps we should be our own masters. We ought to rigorously control the time for watch short videos and be self-disciplined (Park, 2023). On no account should we get addicted to them. In the meantime, we ought to contrive to keep pace with the Internet and acquire the information promptly. Take advantage of these short video apps, so we can absorb useful information conducive to us.

6. The Author

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RJCM Publication Policy

1. Policy

       RICE Journal of Creative Entrepreneurship and Management (RJCM) has its focus on original contributions on research work or academic issues in the areas of creative entrepreneurship and management as practiced by academics or scholars in their fields of specializations in social sciences. Currently, it is classified as Tier 2 in Thai-Journal Citation Index (TCI). It is a double-blind three-peer-reviewed journal and each volume is published online-plus-print thrice a year: No.1 in April, No.2 in August and No 3 in December. Original research articles, academic papers and brief professional viewpoints for sharing will be included in this journal. The details and views expressed in the published papers are entirely the responsibility of those authors.

2. Submission of Manuscripts

       Authors should submit a non-formatted WORD file of their manuscript in single spacing (see Section 3: For Authors below) to Editor-in-Chief 2 Ruja Pholsward <rujajinda@gmail.com>.

- The Office of the Editors-in-Chief is at Science and Technology Building, Floor 4, Rattanakosin International College of Creative Entrepreneurship, Rajamangala University of Technology Rattanakosin, Thanon Putthamonthon Sai 5, Salaya, Nakhon Pathom 73170, Thailand.

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  Mobile: +66 81-436-1303
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- There will be no publication fee for both the online-plus-print versions for papers printed in *RICE Journal of Creative Entrepreneurship and Management (RJCM)* Volumes 1-2.

- The latest date for submission of the first draft of the manuscript to be published in *RJCM* each year: (1) Number 1 in February, (2) Number 2 in June, and (3) Number 3 in October.

3. For Authors
  Arrangement and Style of Manuscript
     3.1 Paper and Page Setup:

      Paper size: Standard A4
       Top margin: 1 inch   Bottom margin: 1 inch
       Left margin: 1.25 inches   Right margin: 1 inch
       Header: 0.5 inch   Footer: 0.5 inch

      3.2 Manuscripts of Original Articles, for both print and online versions, should be submitted in a WORD file of the A4-sized paper, using the Times New Roman (12-point font). Symbols used should be of a similar size and typed on the corresponding lines of text used in each section. Manuscripts of the original article should contain the following sections: title, author's name, author's workplace, abstract and keywords, the main text/ body text, acknowledgements, references, tables, figures, captions/legends and illustrations. Each page

should be clearly numbered in the bottom center of each sheet. Authors should carefully edit and proofread their manuscripts before submission.

3.2.1 The title: The **title of the article** must not exceed 2 lines. A title itself has to be informative and indicates the main topic in the article. The title should be set in the center of the page, using upper and lower case letters of Times New Roman 12 points and printed bold. If there is any symbol, its size must be the same as the text in that line.

3.2.2 Author's name: The author's name and last name are in Times New Roman 11 points in upper and lower case letters in the center of the page below the title of the article. In the case of multi-authorship, identify each author by superscript numbers at the end of the author's last name.

3.2.3 Author's workplace: The workplace (address of the institution) of the author and/or the group of the authors, are in regular Times New Roman 10 points in upper and lower case letters in the center of the page. In case of multi-authorship, please superscript numbers in front of the entire author's name. The e-mail address and telephone number of the corresponding author should also be included here.

3.2.4 Abstract and Keywords: The abstract and key words are in Times New Roman 11 points. They must be single-spaced under the author's workplace and separated from the bottom line of the author's workplace.

      3.2.4.1 Abstract should be informative and state what was done, obtained and concluded. It should be accurate, self-contained, concise and specific, coherent and readable, and reflect only what appears in the original paper. An abstract should contain the following basic components: (1) purpose/motivation/problem statement, (2) methods/design/procedure/approach, (3) results/findings/products, (4) conclusion/applications/research limitations/implications (if applicable), practical implications (if applicable), pedagogic or social implications (if applicable), and (5) originality/value. The length of the abstract should be about 150 words and not exceed 200 words. Type the word "**Abstract**," using Times New Roman 11 points and print bold, left-hand justified. The abstract should be written in one single-spaced paragraph under the heading.

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3.2.5 The main text: The main text of the manuscript must be typed in WORD using Times New Roman 12 points, under an abstract and keywords with single-spaced line and separated from the above section. The main text of your paper should be divided into eight sections (see below), each with a separate heading. Headings are in bold letters, left-hand justified in the column. The first line of each paragraph should indent 0.5 inch from the left margin (of the page/of the right-hand column). Scientific names are normally shown in italics, and symbols must be the same size as the text in that line. The body of the text includes: (1) Introduction, (2) Research Objectives, (3) Research Methodology, (4) Results and Discussion, (5) Conclusion, (6) Acknowledgement, (7) The Author, and (8) References.

3.2.6 In-text Citations: Authors are to give references to all the information obtained from books, papers in journals, websites, or other sources. The Author-Date System should be used to cite references within the paper by using the author's last name and date (year), separated by a comma in parentheses; for example, name(s), year.

3.2.7 Tables and Figures:

3.2.7.1 Tables: The large-sized table format should not be split into two columns but small-sized table can be fit into the column. Each table must be titled, numbered consecutively and complete with heading (title with a description that goes above the table). The word "**Tables,**" including number should be typed using Times New Roman 11 points and bold, left-hand justified, and follow by regular 11 points Times New Roman for the heading.

3.2.7.2 Figures: Line-drawn graph or Figure (in black) is accepted. Also, in the case of photographs, glossy photographic prints, 3.5 x 5.0-inchs, should be submitted concurrently. Similar to tables, large-sized figure format should not be split into two columns but small-sized figure can be fit into the column. Each figure must be numbered consecutively and complete with caption under the figure. The word "**Figure,**" including number should be typed using Times New Roman 11 points and bold, left-hand justified, and followed by regular 11 points Times New Roman for the caption.

3.2.8 Symbols and Units: Every used symbol must be defined in the text and written in the simplest possible way.

3.2.9 Numbering Pages: Manuscript pages must be consecutively numbered throughout the paper except the first page in the bottom center of the page, using bold Times New Roman 12 points.

3.2.10 Reference Lists: The final page contains a list of resources cited in the paper. The style of citations used in RJCM should conform to the American Psychological Association (APA). It is the author's responsibility to ensure the accuracy of all references cited in the paper. References should be listed in alphabetical order using regular Times New Roman 11 points.

3.3 Guideline to References

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Format:
Author.//(Year of publication).//Title of Abstract (abstract).//*Journal Title, Year,Volume(*Number), /Page number.
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Osti, L. & Cicero, L. (2018). Tourists' perception of landscape attributes in rural tourism (abstract). *Worldwide Hospitality and Tourism Themes, 2018*, *10*(2), 211.

Books
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Author.//(Year of publication).//*Title*.//Edition (if any).//Place of publication: Publisher.
Example:
Wallace, M. & Wray, A. (2016). *Critical Reading and Writing for Postgraduates.* Third edition. Thousand Oaks, California: Sage Publications Inc.

Book Articles
Format:
Author.//(Year of publication).//Article Title.//Editor(s) (if any).// *Title of book*.//Edition (if any).//Place of publication:// Publisher,/Page Numbers.
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Hickman, G.R. (2010). Concepts of leadership in organizational change. In Preedy, M., Bennett, N. & Wise, C. (Eds). (2012). *Educational Leadership: Context, Strategy and Collaboration.* Thousand Oaks, CA: SAGE Publications Inc., 67-82.

Conference and Seminar Proceedings
Format:
Conference or Seminar Organizer.//(Year of publication).//*Name of conference,/ Conference date.*//Place of publication (if any):/Publisher (if any).

Example:
Jareonsubphayanont, N. (2014). The international student policy in Thailand and its implication on the 2015 ASEAN Economic Community. *Southeast Asian Studies in Asia from Multidisciplinary Perspective International Conference*, March 2014, Kunming, China.

Dissertation or Thesis
Format:
Author.//(Year of publication).//Title of dissertation or thesis.//Type of Thesis.//Awarding Institution.
Example:
Ua-umakul, A. (2017). The Effects of the Counseling-Based Method on Physics Learning Achievements of Upper Secondary School Students: An Area Focus on Momentum. A Dissertation for the Degree of Doctor of Education in Educational Studies. The Graduate School, Rangsit University.

Editorial
Format:
Author.//(Year of publication).//Title of Editorial (editorial).//*Journal Title,/Year (Volume if any),*/Page numbers.
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Fisher, R.I. (2003). Immunotherapy in Non-Hodgkin's lymphoma: Treatment advances (editorial). *Semin Oncol 30*, *2003* (2Suppl 4), 1-2.

Journal Articles
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Author.//(Year of publication).//Article Title.//*Journal Title.//Year/Volume*(Number),/Page numbers. Doi number (if any).

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Trongratsameethong, A. & Woodtikarn, P. (2019). Thai QBE for Ad Hoc Query. *Journal of Technology and Innovation in Tertiary Education, 2019, 2*(2), 1-24. doi 10.14456/jti.2019.7

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Example:
Enzensberger, W. & Fisher, P.A. (1996). Metronome in Parkinson's disease (letter). *Lancet, 1996, 347*, 1337.

Unpublished/In press Article
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Websites
Format:
Author.//Title.//(Online).//the full address of the web page, accessed date.
Example:
Charlotte, B. Quotes about Action Learning. (Online).
http://www.goodreads.com/quotes/tag/action-learning, January 18, 2017.

3.4 Manuscripts of Brief Professional Viewpoints for Sharing

The length of Brief Professional Viewpoints for Sharing is about 8-10 typed A4 pages. Its content should be arranged as follows: **title**, **name of the author, name and address of the institution**, **3-5 keywords**, **body text**, **the author's biography** of 50-80 words, and **references**. The format, font, and font size used in each section correspond to those in the section of **3.2. Manuscripts of Original Articles**.

3.5 Reprints

During the first two years of publication (2020-2021), authors will receive one free copy of the journal.

RJCM Publication Ethics

RICE Journal of Creative Entrepreneurship and Management (RJCM) has policies on publication ethics after the guidelines given by Committee on Publication Ethics (COPE) <https://publication ethics.org>. Publication ethics policies mainly involve duties of (1) Authors, (2) Editors, and (3) Reviewers.

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Authors or paper contributors shall not submit simultaneous or duplicate manuscripts. It is imperative that authors submit work of original investigation and acknowledge concepts, research methodology and findings of preceding authors or researchers by giving proper references. If required, authors need to seek permission for the use of specific data or adaptation of research methodology as well as provide evidence on approval of professional ethics in the selected field of study. Plagiarism of all kinds is unacceptable and will result in paper rejection and permanent dismissal by *RJCM*. Authors shall be solely and fully liable for all viewpoints and research components used in published papers.

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The editors are to ensure transparency in the publication policies, communication with corresponding authors regarding submission, response on paper acceptance/ rejection, and notification of double-blinded review results for paper revision. In particular, the editors shall not consider multiple submission or redundant publication. The editors shall provide information on the *RJCM* website on ownership, editorial board, publication policies, publication schedule, data access and sharing, pre- and post-publication contacts—ranging from inquiries from paper contributors, correspondence, requests for clarification, comments for paper revision, to complaints or appeals, if any. The editors reserve the right not to deal with allegations of research misconduct from any party concerned under the condition that concrete evidence is found for the act of malpractice.

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RICE Journal of Creative Entrepreneurship and Management (RJCM) is an international journal for academics and scholars at the higher education level to communicate and share their viewpoints and academic work with fellow professionals in the areas of creative entrepreneurship and management as practiced in their fields of specializations in social sciences. Currently, it is classified as Tier 2 in Thai-Journal Citation Index (TCI).

RJCM publishes three numbers per volume annually and welcomes contributors to submit their manuscript in January, May, and September of each year. We accept both academic and research papers in social sciences from contributors. The papers are double-blind three-peer-reviewed in each volume and published online-plus-print thrice a year.

The length of the unformatted manuscript in WORD can be 15-25 pages in length including references. The contents of the manuscript should include (1) a title with the author's name, affiliate, email address and telephone contact, (2) an abstract of 150 words with 3-5 keywords, (3) an introduction, (4) a rationale and background of the study, (5) research objectives, (6) research methodology, (7) data collection procedure, (8) data analysis, (9) results and discussion, (10) research limitation (if any), (11) conclusion, (12) acknowledgement(s) (if any), (13) the author's biography of about 50-80 words, (14) references, and (15) an appendix or appendices (if any).

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