Business, Economics and Communications International Conference

BECIC x NATIONAL COLLOQUIUM 2025

Conference Proceeding

The 10th Business Economics and Communications International Conference(BECIC) 2025

April 3rd, 2025

Topland Hotel, Phitsanulok, Thailand

Faculty of Business, Economics and Communications
Naresuan University, Phitsanulok, Thailand
https://bec.nu.ac.th/becic

The 10th Business, Economics and Communications International Conference (The 10th BECIC2025)

"Innopreneurship and Business Sustainable Growth"

April 3rd, 2025

Topland Hotel, Phitsanulok, Thailand

Faculty of Business, Economics and Communications (BEC)
Naresuan University, Phitsanulok, Thailand

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About Naresuan University

Naresuan University (NU) emphasizes the improvement of educational opportunity and equity for all as one of the top government universities in Thailand. A strong focus is placed upon research, innovation, partnership, and internationalization. Naresuan University aspires to be the University of Innovation. It is strategically located at the heart of the Thai Kingdom in Phitsanulok province. Formerly a campus of Srinakharinwirot University, NU was established as a public university in 1990, which was the 400th anniversary of the start of the reign of Phitsanulok-born King Naresuan the Great, after whom the university is named. The university has about 20,000 full-time students.

This comprehensive university lives up to the public expectations in providing diverse, cutting edge programs through 21 faculties, college, institute, schools and demonstration schools. Although not many years have passed since its inception, NU has already earned the reputation of being one of the most progressive universities in Thailand. It aims to be a comprehensive university dedicated to the development of world-class graduates and new knowledge for the purpose of creating excellent resources for regional and national development.

About Faculty of Business, Economics and Communications (BEC)

Faculty of Business, Economics and Communications (BEC) is located in Phitsanulok province in the lower northern, Thailand. It was first established in 1994 as a part of Faculty of Humanities and Social Sciences (HSS), but on October 1st, 2003, it was separated off from HSS to Faculty of Management and Information Sciences (MIS), and then on July 22th, Naresuan University council approved to rename from Faculty of Management and Information Sciences (MIS) to Faculty of Business, Economics and Communications (BEC).

Vision Statement

To be well recognized at national and international levels as a faculty distinctive in its academic, research, and innovative excellence.

Mission

To create entrepreneurs, managers, and leaders through globally-recognized academic work, research, innovation, and knowledge integration, with an emphasis on driving regional and national community development in Thailand.

Welcome Address from the President of Naresuan University

As the President of Naresuan University, I extend my warmest welcome to all the participants joining us for **the 10th Business, Economics** and **Communications International Conference (BECIC2025) and the 12th National Colloquium 2025** under the theme "Innopreneurship and Business Sustainable Growth."

I commend Faculty of Business, Economics, and Communications for its unwavering commitment to organizing national and international academic conferences for twelve consecutive years. This long-standing endeavor reflects the faculty's dedication to fostering research excellence and knowledge exchange in both the academia and the business sectors. These conferences have served as a vital platform for researchers, faculty members, and students to present their works, exchange ideas, and develop insights that can be practically applied.

This year's conference places a strong emphasis on the integration of innovation, entrepreneurship, and sustainability, aiming to facilitate global knowledge exchange among experts, researchers, and entrepreneurs from around the world. Our goal is to strengthen academic networks and advanced research that generate tangible economic and social value. This aligns with Naresuan University's strategic vision of fostering an entrepreneurial university.

I convey my appreciation to Faculty of Business, Economics, and Communications for initiating and organizing this impactful conference. Beyond serving as a platform for research dissemination, this event provides an opportunity to develop innovations that drive business and societal progress. Learning from distinguished keynote speakers and engaging with fellow researchers and presenters today will undoubtedly enhance our collective knowledge and inspire the creation of valuable innovations that contribute to sustainable economic and social development.

Thank you for being a part of this academic exchange. I hope that you will gain meaningful insights from the conference and can apply this knowledge to create lasting economic and societal impact.

May this conference be a resounding success, and I look forward to our continued collaboration in building a brighter and more sustainable future.

Associate Professor Sarintip Tanthanee, Ph.D.,
President of Naresuan University

Welcome Address from the Dean of Faculty of Business, Economics and Communications

Dear Honored Guests,

As the Dean of the Faculty of Business, Economics, and Communications at Naresuan University, it is my great pleasure to extend a warm welcome to all participants and paper presenters at **the 10th Business, Economics and Communications International Conference (BECIC2025)** and **the 12th National Colloquium, 2025.**

This year's theme, **"Innopreneurship and Business Sustainable Growth,"** is of paramount importance in an era where businesses and organizations must adapt swiftly to dynamic changes in economics, society, and technology. Particularly, innovation in business has become a crucial driving force for sustainable growth across all sectors.

The concept of "Innopreneurship and Business Sustainable Growth" represents the integration of innovation and entrepreneurship, leading to long-term business sustainability. Creativity, novel perspectives, and advanced technology play a pivotal role in ensuring business advancement in an effective and enduring manner.

Innopreneurship is not merely about creating profitable businesses but also about exploring new approaches to making the world a better place through innovation. This includes developing valuable products and services or transforming industry practices towards sustainability. Meanwhile, Business Sustainable Growth goes beyond mere revenue generation or market expansion; it also considers long-term impacts on the environment, society, and financial stability. The ultimate goal is not just short-term growth but the creation of businesses that can thrive in all dimensions in the future.

This conference aims to serve as a platform for the dissemination of high-quality research at both the national and international levels. It seeks to foster research collaboration, strengthen academic networks among universities worldwide, and support the publication and dissemination of research findings. These efforts will contribute significantly to driving economic and social development in the future.

This year, we are privileged to have esteemed Keynote Speakers who are distinguished experts in innovation-driven sustainable growth. We are honored to welcome **Dr.Thomas M. Begley,** Professor of Management Emeritus at the Lally School of Management, Rensselaer Polytechnic Institute, USA, and **Mr.Sorot Teaodechwan,** CEO, Activeplus Blue Co., Ltd., Premium Thai Snack.

Their insights and expertise in business innovation and sustainable development will provide invaluable perspectives, enriching our collective understanding and fostering knowledge creation in this field.

In closing, I would like to express my sincere gratitude to all of you for joining this event. I hope you will gain valuable insights, engage in fruitful discussions, and establish strong academic networks that will lead to sustainable collaboration in the future.

Wishing you all a rewarding experience and a highly successful conference.

Associate Professor Vichayanan Rattanawiboonsom, Ph.D.,
Dean, Faculty of Business, Economics, and Communications
Naresuan University

Welcome Address from the Conference Program Chair (BECIC)

Dear All Participants,

It is my great pleasure to welcome you all to t**he 10th Business, Economics and Communications International Conference (BECIC2025) and the 12th National Colloquium, 2025.** This year, we are honored to organize the event under the theme **"Innopreneurship and Business Sustainable Growth."**

This conference serves as a platform for knowledge exchange and experience sharing among researchers and experts from various fields, both domestically and internationally. The primary goal is to foster research development and advocate in the areas of innopreneurship and sustainable growth, which are of significant importance at the present time. Today, global business challenges can range from economic downturns to technological disruptions and social problems. With all these challenges, this topic becomes highly significant.

Today's sessions will feature presentations of impactful academic works that contribute to the advancement of organizations and businesses. The focus will be on innovative concepts, the development of sustainable business innovations, and the application of technology to drive responsible and sustainable growth for both society and the environment.

On this occasion, I would like to express my sincere appreciation to all participants for honoring us with your presence. My deepest gratitude also goes to all presenters for their valuable contributions and for sharing their insights and research findings with us.

Finally, I hope that this conference will provide you with meaningful experiences and new inspiration to drive innovation, business, and society forward. I sincerely look forward to our continued collaboration in fostering knowledge and sustainable development in the future.

Wishing you all a successful and fulfilling experience at this event.

Associate Professor Passawan Korakotchamas, Ph.D.
Associate Dean for Academic Affairs

Conference Committees

Professor Dr. Amir Mahmood	Pro Vice-Chancellor & Provost Western Sydney University, Indonesia
Professor Dr. Terry Williams	University of Hull, United Kingdom
Professor Dr. Robert Van Der Meer	University of Strathclyde Business School, United Kingdom
Dr. Nohman Khan	Connecting Asia
Prof. Dr. Thomas M. Begley	Professor of Management Lally School of Management, Rensselaer Polytechnic Institute Troy
Associate Professor Dorin Cristian COITA	Vice-Dean, Faculty of Economic Sciences University of Oradea, Romania
Associate Professor Dr. Thitinan Chankoson	Srinakharinwirot University
Associate Professor Dr.Kulachet Mongkol	Srinakharinwirot University
Associate Professor Dr.Wasan Sakulkijkarn	Srinakharinwirot University
Associate Professor Dr. Panutporn Ruangchoengchum	Khon Kaen University
Assistant Professor Dr. Pisek Chainirun	Khon Kaen University
Dr. Bussagorn Leejoeiwara	Khon Kaen University
Assistant Professor Dr. Kriangsak Chanthinok	Mahasarakham University
Assistant Professor Dr. Chutima Ruanguttamanun	Mahasarakham University
Assistant Professor Dr. Sutana Boonlua	Mahasarakham University
Assistant Professor Dr. Aukkarwit Robkob	Mahasarakham University
Assistant Professor Dr. Atthaphon Mumi	Mahasarakham University
Assistant Professor Dr. Prapassorn Wareesri	Mahasarakham University
Assistant Professor Dr. Utis Bhongchirawattana	Mahasarakham University
Assistant Professor Dr. Rotcharin Kunsrison	Mahasarakham University
Assistant Professor Dr. Chatchai Chatpunyakul	King Mongkut's Institute of Technology Ladkrabang
Assistant Professor Dr. Wannapa Luekitinan	Burapha University
Assistant Professor Dr. Jirapa Phungbangkruay	Burapha University
Assistant Professor Dr. Areerat Leelhaphunt	Burapha University
Assistant Professor Dr. Rattana Sittioum	Pibulsongkram Rajabhat University
Assistant Professor Dr. Lasda Yawila	Pibulsongkram Rajabhat University

Conference Committees

Associate Professor Dr. Vichayanan Rattanawiboonsom	Naresuan University
Associate Professor Dr. Kittima Chanvichai	Naresuan University
Associate Professor Dr. Sujinda Chemsripong	Naresuan University
Associate Professor Dr. Passawan Korakotchamas	Naresuan University
Associate Professor Dr. Attakrai Punpukdee	Naresuan University
Associate Professor Kanogporn Suranatthakul	Naresuan University
Assistant Professor Dr. Pattaraporn Pongsaporamat	Naresuan University
Assistant Professor Dr. Kritcha Yawised	Naresuan University
Assistant Professor Dr. Chairat Choesawan	Naresuan University
Associate Professor Dr. Pudtan Phanthunane	Naresuan University
Assistant Professor Dr. Siripen Dabphet	Naresuan University
Assistant Professor Dr. Petchsri Nonsiri	Naresuan University
Assistant Professor Dr. Akkaya Senkrua	Naresuan University
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Assistant Professor Dr. Flt.Lt.Wachira Punpairoj	Naresuan University
Assistant Professor Dr. Siriwan Kitchot	Naresuan University
Assistant Professor Dr. Darlin Apasrawirote	Naresuan University
Assistant Professor Dr. Suntaree Tungsriwong	Naresuan University
Dr. Rattapol Chaiyarat	Naresuan University
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Dr. Suparawadee Trongtortam	Naresuan University
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Dr. Sukij Khorchurklang	Naresuan University
Dr. Anirut Asawasakulson	Naresuan University
Dr. Jaruwan Daengbuppha	Naresuan University
Dr. Ketwadee Buddhabhumbhitak	Naresuan University
Dr. Montira Intason	Naresuan University
Dr. Paramet Damchoo	Naresuan University
Dr. Pakchira Nugbanleng	Naresuan University
Dr. Kritsada Wattasaovaluk	Naresuan University
Dr. Chalat Boonparn	Naresuan University
Dr. Pawinee Stargell	Naresuan University

Conference Schedule

The 10th International Academic Conference 2025 and

The 12th National Academic Presentation 2025

Topic: "Innopreneurship and Business Sustainable Growth"

Theme: Bridging Innovation and Sustainability

Date: April 3rd, 2025, from 08:00 – 21:00 hrs.

at Convention Hall, 5th Floor, Topland Hotel, Phitsanulok

Morning Session – Opening Ceremony (Convention Hall, 5th Floor)	
08:00 – 08:50 hrs.	Registration
	Opening Ceremony of the 10th International Academic Conference 2025 and the 12th National Academic Presentation 2025 1. Opening video presentation showcasing previous International Academic Conferences and National Academic Presentations 2. Reporting Remarks by the Dean of the Faculty of Business, Economics, and Communication 3. Welcome speech by Head of BEC Advisory Board member and Director and Treasurer, Thai Red Cross Society 4. Opening Remarks by Vice President for International Relations and Technology Transfer of Naresuan University 5. Special speech by BEC Advisory Board member and Honorary Advisor at Institute of Strategic and Appreciative Business 6. Theme introduction video presentation 7. Opening ceremony gimmick 8. Presentation of souvenirs to the keynote speakers by Vice President for International Relations and Technology Transfer of Naresuan University o Professor Dr. Thomas M. Begley o Mr. Solos Teowdejwan 9. Presentation of souvenirs to the Vice president, Advisors, and VVIPs by the Dean o Dr. Phisut Apichayakul o Khunying Jada Wattanasiritham o Mr. Abhisit Vejjajiva o Mr. Pakorn Dansitong o Dr. Nohman Khan o Dr. Kriangkrai Tangkunsombat

Morning Session – Opening Ceremony (Convention Hall, 5th Floor)	
08:50 – 10:00 hrs.	10. Presentation of a token of appreciation to network partners by the Dean o Mahasarakham University o Center of Excellence in SME Research o Center of Excellence in Tourism Management 11. Group photo session (Three sets) o Set 1: President, Dean, and Advisory Boards o Set 2: President, Dean, Advisory Boards, and Keynote Speakers o Set 3: President, Dean, Advisory Boards, Keynote Speakers, Deans and Representatives
10:00 – 10:45 hrs.	Morning Session – Keynote Speeches Keynote Speech 1 (45 minutes) (Talk and Q&A) • Speaker: Professor Dr. Thomas M. Begley, Professor of Management Emeritus, Lally School of Management, Rensselaer Polytechnic Institute • Topic: Aligned with the Theme of Bridging Innovation and Sustainability
(Refreshments will be served after Keynote Speech 1)	
10:45 – 11:15 hrs.	Keynote Speech 2 (30 minutes) (Talk and Q&A) • Speaker: Mr. Solos Teowdejwan, CEO of Activeplus Blue Co., Ltd. (Premium Thai Snack) • Topic: Aligned with the Theme of Bridging Innovation and Sustainability
11:15 – 11:30 hrs.	Morning Session – Research Presentations • Panelists and paper presenters proceed to separate rooms for research presentations • Rooms & Theme: - Lopburi - Innopreneurship & Business Sustainable (Session 1) - Chainat - Innopreneurship & Business Sustainable (Session 2) - Nakhon Sawan - Innopreneurship & Business Sustainable (Session 3) - Uthai Thani - Innopreneurship & Business Sustainable (Session 4)
11:30 – 12:00 hrs.	Research presentations (15 minutes per paper) Evaluated and reviewed by distinguished experts Number of papers presented: o Thai-language papers: 57 papers
12:00 – 13:00 hrs.	Lunch Break

<table>
<tr><th colspan="2">Morning Session – Opening Ceremony (Convention Hall, 5th Floor)</th></tr>
<tr><td>13:00 – 17:30 hrs.</td><td>Afternoon Session – Research Presentations (Continued)
Rooms & Theme:
• Lopburi - Innopreneurship & Business Sustainable (Session 1)
• Chainat - Innopreneurship & Business Sustainable (Session 2)
• Nakhon Sawan - Innopreneurship & Business Sustainable (Session 3)
• Uthai Thani - Innopreneurship & Business Sustainable (Session 4)
Research presentations (15 minutes per paper)
Evaluated and reviewed by distinguished experts
Number of papers presented:
o Thai-language papers (Continued)</td></tr>
<tr><td>Start at 13:30 hrs.</td><td>Afternoon Session – Research Presentations (Continued)
Rooms & Theme:
Uttaradit (International) - Innopreneurship and Business Sustainable Growth
Research presentations (15 minutes per paper)
Evaluated and reviewed by distinguished experts
Number of papers presented:
o International papers: 9 papers</td></tr>
<tr><th colspan="2">Evening Session – Closing Ceremony (Convention Hall, 5th Floor)</th></tr>
<tr><td>18:00 – 21:00 hrs.</td><td>Closing Ceremony
1. Appreciation speech for the committee and presenters
by the Dean of the Faculty of Business, Economics, and Communication
2. Award ceremony for outstanding research papers and certificate presentation
3. Cultural performance
4. Dinner reception with background music</td></tr>
<tr><td>21:00 hrs.</td><td>End of the Conference</td></tr>
</table>

Note: The schedule is subject to change.

BECIC Business, Economics and Communications International Conference X NATIONAL COLLOQUIUM 2025

Conference Schedule

April 3rd, 2025

Venue: Uttaradit Room

Session BECIC: Innopreneurship and Business Sustainable Growth	
Committee Session	Staffs
1. Associate Professor Dr. Panida JongSuksomsakul 2. Assistant Professor Dr. Sutana Boonlua 3. Dr. Mukund Sharma (Session Chair)	1. Mr. Chatchaphon Sumroengrit 2. Ms. Monthira Keangku 3. Ms. Chalida Theamsangwal

No.	Time	Presenter	Title
Online Presentations			
1	1.30 – 1.45 PM	Sudthasiri Siriviriyakul	Professionalism Through a Visual Method: A Comparison between Big-Four Auditors in the UK and Thailand
2	1.45 – 2.00 PM	Narinsiree Chiangphan	Future Competencies in Hotel Industry: An Exploration of Student and Hotel HR professionals Expectations in the Age of AI
3	2.00 – 2.15 PM	Chuan Zhou	Research on Innovative Cultural Souvenir Design for Tourism: A Case Study of Yunnan Wamao
4	2.15 – 2.30 PM	Aticha Kwaengsopha	Decoding the Intentions of Plant-Based Food Consumers in Chiang Mai, Thailand: Health Consciousness and Religious Beliefs
5	2.30 – 2.45 PM	Morokath Lao	Analyzing the Relationship Between Policy Awareness, Fulfillment of Expectations, Perceived Value and Customer Satisfaction in the Cambodia's Health Insurance Industry
On Site Presentations			
6	2.45 – 3.00 PM	Saowanee Thapphet	Thai Qualifications Framework for Higher Education: A Comparative Study with Europe
7	3.00 – 3.15 PM	Thanawat Wongpaisan	Factors affecting re-purchased by overall satisfaction of Amazon café in Mahasarakham
8	3.15 – 3.30 PM	Phechkla Nakaew	Online reviews and ratings in consumer decision-making
9	3.30 – 3.45 PM	Mukund Sharma	Unveiling India's Fiscal Journey: An In-depth Exploration of Central Government Finances Across the COVID-19 Timeline

Professionalism through a Visual Method: A Comparison between Big-Four Auditors in the UK and Thailand

Sudthasiri Siriviriyakul[1]
Thammasat Business School, Thammasat University, Thailand

Abstract

This research examined the professionalism of Big-Four auditors using a visual method of participant-produced drawings within semi-structured interviews of 11 and 9 auditors in the UK and Thailand respectively. The innovative, unconventional visual method helped to illustrate the socially-constructed nature of professionalism involving multifaceted elements. In particular, both samples demonstrated the traditional sense of professionalism where public interests and technical knowledge were emphasised. This was coexisted with a more contemporary orientation where client focus was highlighted. The data showed a higher extent of commercialism in terms of revenue-generation attempt in the UK sample. In contrast, auditors in Thailand exhibited the seniority culture characterised by strong deference and respect to the elderly when interacting with clients and internal staff. Extra cautions were placed for Thai auditors not to appear threatening or challenging the clients. Furthermore, practical elements of professionalism namely the teamworking ability and self-sacrifice through hard work were also reported.

Keywords: 1) Professionalism 2) External Auditing 3) Accounting 4) Cross-cultural Professional Work 5) Visual Method

[1] E-mail: sudthasiri@tbs.tu.ac.th

Introduction

An auditing profession plays an important role in the economy and society in general. Auditors give reasonable assurance and attest to the credibility of financial information reported to the public. As such, they protect the shareholders, investors, creditors, and other financial statement users in the society from being misled by such financial information. Nevertheless, various corporate collapses and accounting scandals in recent years made the members of the public question the professionalism of auditors and the accounting profession overall. In response to these concerns, audit firms have attempted to improve their quality and standards of the professional work. The Big-Four firms, as the important sites of professionalisation (Cooper & Robson, 2006) set the stage for the professional practices and behaviours of auditors. Possessing and demonstrating the utmost level of professionalism thus make the Big-Four auditors and the accounting profession in general secure their status, legitimacy and dominance in this field (Muzio et al., 2013). Yet, what is professionalism? How do individual auditors conceptualise this construct? Scholars have debated over the definitions of this concept, and it seems that its meanings have shifted over time (Fogarty, 2014; Muzio et al., 2013; Spence & Carter, 2014).

Moreover, the body of literature on accounting or auditing professionals tends to be limited to the Western settings and scholars have called for more studies in other contexts, especially the emerging markets (Belal et al., 2017). Accordingly, this research article compared the professionalism of Big-Four auditors in the UK and Thailand. Apart from being an emerging market, Thailand represents a good example for studying the cultural aspects of professionalism compared to the UK with their cultural differences, for instance, regarding Hofstede's (2001) cultural dimensions of power distance and individualism/collectivism. An innovative visual method of participant-produced drawings (Kearney & Hyle, 2004) was employed as part of the semi-structured interviews to help participants reflect the abstract conceptualisation better. This comparative research contributed to the literature on the sociology of professions by demonstrating the professionalism as socially constructed by individual auditors from different cultures. The similarities and differences of what constituted professionalism for the Big-Four auditors in the two countries were demonstrated both visually and verbally.

The structure of this article is as follows. Firstly, I reviewed the relevant literature on professionalism in the auditing profession as well as the cultural aspects of professionalism. Secondly, I explained the research methodology and rationale behind the choice of methods. Thirdly, the results were presented with different themes delineating the professionalism of Big-Four auditors in the UK and Thailand. Lastly, I discussed and concluded how this research contributed to the existing literature, as well as suggested potential directions for future studies.

Literature Review

Professionalism in the auditing profession

Professionalism can be conceptualised from various perspectives. Functionalist scholars tend to emphasise certain qualities that define a profession such as the technical, special knowledge, the existence of professional community, the professional autonomy and self-regulation, and the contribution to public interests (Fogarty, 2014). Professionalism can also be seen through the power struggle process in which professions attempt to have control and dominance over their field (Muzio et al., 2013).

Within the auditing profession, a related theoretical framework that researchers usually refer to when discussing the professional values of auditors is the theory of institutional logics (Thornton & Ocasio, 1999). An institutional logic can be defined as ‘the socially constructed, historical pattern of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality’ (Thornton & Ocasio, 1999, p. 804). In other words, an institutional logic is a macro-level value that guides the behaviours of individuals at the micro level. Two key institutional logics in the auditing profession include the professional logic and the commercial logic (Gendron, 2002; Spence & Carter, 2014). The professional logic focuses on the aforementioned defining qualities of the functionalist scholars of professionalism such as exercising technical accounting knowledge, professional autonomy, and serving the public. In contrast, the commercial logic emphasises the business aspect of auditing. This includes the building of good client relationships, the significance of profitability, efficiency, and revenue generation such as providing non-audit services (Gendron, 2002; Spence & Carter, 2014; Sweeney & Pierce, 2006).

Many studies demonstrate the emergence and dominance of the commercial logic in the auditing profession (Dermarkar & Hazgui, 2022; Guo, 2016; Spence & Carter, 2014; Sweeney & McGarry, 2011). This growing importance and legitimacy of commercial value thus impact the way professionalism is conceptualised (Dermarkar & Hazgui, 2022; Spence & Carter, 2014). As Spence and Carter (2014, p. 949) put it, ‘this characterization [of the professional logic and commercial logic in the literature] is arguably too binary for it implies that professionals who embody the commercial logic are, by definition, not professional’. Instead, Spence and Carter (2014, p. 949) prefer to call the two institutional logics ‘technical-professional’ and ‘commercial-professional’, although with the same meanings with the categorisation of professional/commercial logics in the existing literature.

All in all, professionalism in the auditing profession can be seen as one of the socially constructed realities (Berger & Luckmann, 1966; Schwandt, 1994; Searle, 1995) in the daily lives of individual auditors where they ‘fashion meaning out of events and phenomena through prolonged, complex processes of social interaction involving history, language, and action’ (Schwandt, 1994, p. 118). Either being professional in a sense of the functionalist strand with certain characteristics such as the focus on technical knowledge and public interests, or being professional in terms of a more client-focused, commercialised orientation, the meaning of professionalism is dynamic and ontologically subjective to individual auditors (Searle, 1995).

Cultural aspects of professionalism

The impact of culture on professionalism in the accounting/auditing field has been recognised in the literature. Edem et al. (2022), for example, refer to the ethical aspect of accounting professionalism that can be affected by sociocultural factors such as the tendency to tolerate corruption. Hwang et al. (2008) report that certain Confucian cultural values such as Guanxi can discourage the whistle-blowing intent of accounting and auditing professionals. Even the same international accounting standards can be interpreted differently to some extent by accountants in different cultures (Edem et al., 2022). The interactions and communication styles in the audit work can also differ in different places. For instance, the cultural dimension of power distance (Hofstede, 2001) might determine how much a junior auditor would expect to be consulted by an audit partner or how direct and free-flowing the communication between the audit staff and the client's senior management can be (Cowperthwaite, 2010).

An earlier, yet much cited work by Gray (1988) proposes a series of hypotheses on the relationships between cultural values and accounting practices, behaviours, and attitudes. For example, 'the higher a country ranks in terms of individualism and the lower it ranks in terms of uncertainty avoidance and power distance then the more likely it is to rank highly in terms of professionalism' (Gray, 1988, p. 9). Professionalism here in Gray's term is the opposite of the 'statutory control' (Gray, 1988, p. 8). In other words, it is 'a preference for the exercise of individual professional judgment and the maintenance of professional self-regulation as opposed to compliance with prescriptive legal requirements and statutory control' (Gray, 1988, p. 8). Thus, Gray's (1988) definition of professionalism tends to be closely aligned with the self-regulation and autonomy aspects in the functionalist strand of professionalism. Nevertheless, Gray (1988) admits that these are just proposed hypotheses without empirical evidence. Scholars in later years have both confirmed and rejected Gray's (1988) hypotheses (Askary, 2006; Perera et al., 2012).

Apart from the positivist, quantitative studies that test the relationships between cultural values and accounting/auditing aspects of professionalism, some qualitative research has been conducted to understand the accounting/auditing professionalism across cultures. Spence et al. (2016) examine the habitus (in the Bourdieusian sense) of the partners in Big Four firms in the UK, Spain, France, Canada, and Bangladesh. Spence et al. (2016) find that the meaning of professionalism perceived by accountants in Bangladesh is very different from their Western counterparts. In particular, while the public interest ethos is central to the conception of professionalism for Bangladeshi accountants, the entrepreneurial profit-seeking focus prevails in the professionalism of accountants in the Western countries (Spence et al., 2016). Spence et al. (2016) call for more research that investigates the similarities and differences in professional work across nations, particularly between the established and the emerging ones.

Methods

The data for this comparative research were part of the bigger research projects on external auditors performing statutory audits in the UK and Thailand. The datasets for this research article included 11 auditors in the UK and 9 auditors from Thailand ranging from the positions of Audit Associate to Audit Director, and Audit Senior[2] to Audit Partner respectively. All research participants worked in Big-Four audit firms with at least 3 years of work experience. Data were collected using semi-structured interviews with participant-produced drawings (Kearney & Hyle, 2004). In particular, apart from normal verbal interviews, participants were asked to draw anything to answer a question regarding what being an auditor meant to them. They were free to draw in any forms and ensured that they would not be judged on their artistic ability. Then, they discussed what they have drawn to the researcher. Further probing questions were asked to clarify the visual data. Note that the two research projects that produced the two datasets have been approved by the relevant institutional research ethics committees in the UK and Thailand.

The rationale behind using this visual method was to help participants reflect their experiences better, especially when communicating certain abstract, ineffable concepts such as professional values and subjectivities (Bagnoli, 2009; Guillemin & Drew, 2010; Pain, 2012; Ward & Shortt, 2012). The visual method also enabled the researcher to capture the essence of participants' experiences with its 'condensing' quality (Bagnoli, 2009, p. 551; Kearney & Hyle, 2004) as well as stimulated further discussions on the topics studied (Pain, 2012; Ward & Shortt, 2012). Moreover, this free-drawing method empowered the participants to construct their answers from their own perspective (Bagnoli, 2009; Guillemin & Drew, 2010; Pain, 2012). In this way, the socially-constructed conception of professionalism could be expressed and understood from participants' point of view. Furthermore, this creative method helped to promote a non-standard way of thinking that went beyond the prototypical, text-book definitions, or 'ready-made' answers (Bagnoli, 2009, p. 566).

The visual data were analysed by a thematic analysis of verbal discussions of the drawings (Braun & Clarke, 2006; Vince & Warren, 2012). As such, the drawing method represented a tool or 'catalyst' to stimulate verbal discussions in the interviews regarding abstract ideas rather than

[2] For audit firms, the position of an Audit Senior is still relatively junior in the organisational hierarchy (below a Manager level), despite the term 'senior' in the title.

[3] Any identifiable attributes such as names or logos were removed from the images to protect participants' anonymity (Bagnoli, 2009).

being the 'end product' in itself (Vince & Broussine, 1996, p. 9). With the consent from participants, examples of their anonymised drawings[3] were illustrated here.

Results

Duty to the public

To begin with, there are instances where auditors in the UK and Thailand both presented their professionalism in terms of the obligated duty to the public. They saw themselves as guardians of the public interests where they protected the financial statement users in the public from material misstatements of the financial information. This was basically what 'being an auditor' meant to them.

For example, Judy[4], an Audit Assistant Manager in the UK drew a picture of herself as a police officer protecting the world:

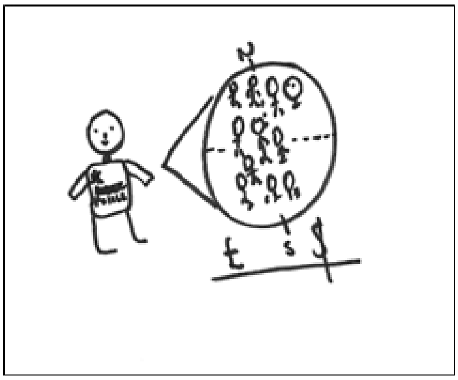

Figure 1 Judy's Drawing

Judy mentioned her policing role that the public has entrusted her to make sure that the public stakeholders such as shareholders and potential investors can rely on the financial information represented in the companies' financial statements.

Similarly, Xenos, an Audit Partner in Thailand saw himself as the sun shining and enlightening the financial statement users:

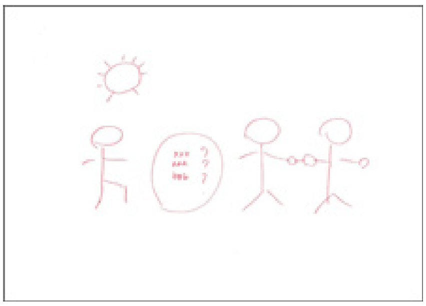

Figure 2 Xenos's drawing

According to Xenos, auditors were the middleman between the company (a person on the left in the picture) and the users of financial statements in the public (a person on the right in the picture) who placed their trust in the auditors' role.

[4] All names here are Pseudonyms instead of real names of participants.

Knowledge, standards and learning

Secondly, professionalism was depicted and discussed by auditors in both countries in terms of the importance of technical knowledge, accounting/auditing standards and learning. For instance, Anastasia, an Audit Senior Manager in the UK drew a picture of a book of the accounting standards, labelling 'IFRS':

Figure 3 Anastasia's drawing

The technical knowledge also represents here in terms of keeping up with diverse industry-specific knowledge of auditing different industries. Accordingly, Anastasia drew many different clients of hers such as the car auction company, the washing machine manufacturer, the beef producer, and the water company.

Likewise, Olivia, an Audit Manager in Thailand drew a picture of a ruler representing the accounting standards that auditors have to follow. She also mentioned the significance of exercising judgements, thus a picture of a scale, when there were grey areas that needed interpretations:

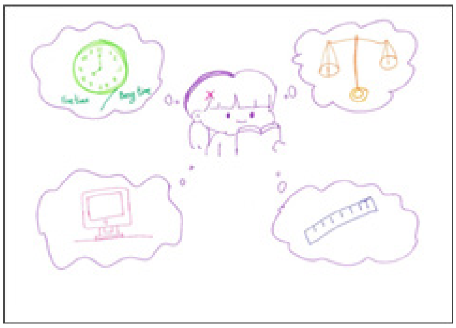

Figure 4 Olivia's drawing

Value adding and relationships to the clients

Thirdly, professionalism was also expressed in a sense of client focus where auditors in both the UK and Thailand added value to and maintained good relationships with the clients. This is exemplified in the drawing by Valentina, an Audit Assistant Manager in the UK (a picture of people shaking hands):

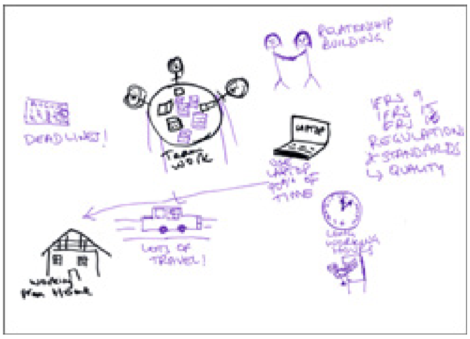

Figure 5 Valentina's drawing

Valentina discussed the importance of 'knowing what the clients need and connecting them with the right people within the organisation' as well as building good relationships in order to keep the clients with their firm.

As for the Thailand sample, participants discussed how auditing was not merely about 'catching someone out'. Instead, the clients could benefit from having been checked for any risky items or irregularities as well. Nina, an Audit Associate Director in Thailand depicted this point very clearly in her drawing of a magnifying glass:

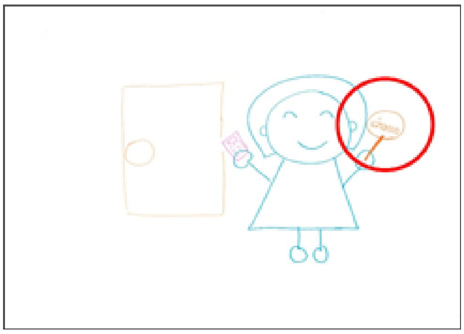

Figure 6 Nina's drawing

According to Nina, auditors helped 'magnifying' things in the clients' accounts, checking and pointing out elements that might be risky to the clients themselves. The clients might overlook these risky points because they were perhaps familiar with their own ways of doing things or had certain biases. By having auditors coming in and scrutinising the clients' accounts and information system, clients ended up being more secure and protected (hence the picture of the door).

Moreover, the client relationships in a Thailand sample have further cultural implications. In particular, there was a sense of respecting the seniority embedded in the professionalism when interacting with (more senior) clients. This is illustrated in a drawing of Quinn, a 25-year-old Audit Senior in Thailand who symbolised being an auditor as a rabbit:

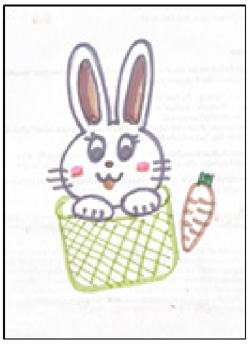

Figure 7 Quinn's drawing

Quinn saw herself as a rabbit who, unlike fierce animals like tigers, was not there to threaten or kill the clients. Rather, this timid, innocent (yet curious), little rabbit came to help the clients check the accounts in a friendly, respectful way. Quinn used the Thai word 'norb-norm' meaning respecting the seniors, which represents the seniority culture in Thailand. In addition to the clients, Quinn also mentioned being a rabbit to the internal audit staff in higher positions as well such as when she met the Audit Partners or Audit Managers in her firm.

Teamwork

Next, professionalism of auditors in both countries was constructed in the context and dynamic of teamworking. Participants from the UK and Thailand strongly stressed the importance of good collaboration in audit teams. The success of each audit depended significantly on team members working together and helping one another. For example, Zanita, an Audit Manager in the UK drew a picture of different people representing working as a team:

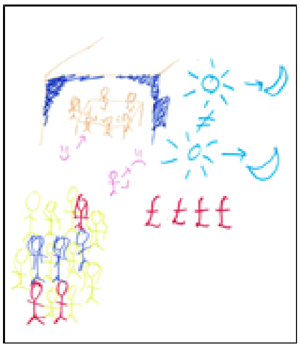

Figure 8 Zanita's drawing

According to Zanita, she enjoyed working in a good team where team members supported one another (hence a smiling face symbol). She also met diverse, different types of people both internally and externally (representing through different colours of the people drawn). Similarly, participants from the Thailand sample also emphasised the crucial need to work as a team for auditors. Dorothy, an Audit Senior depicted this point through a picture of an audit team composed of auditors from different levels:

Figure 9 Dorothy's drawing

Similar to Zanita's drawing, Dorothy discussed the diverse, different types of people she met both internally and externally. Thus, the people skills were very important. Note that the different sizes of people in an audit team in Dorothy's drawing (three people in the bottom of the picture) signify the different positions and hence seniority levels in a team. This is in contrast to a group of relatively similar-sized people working together in Zanita's drawing (or those many people in Anastasia's drawing shown earlier). Again, this represents the sense of seniority culture ingrained in the professionalism of auditors in Thailand.

Long working hours and busy seasons

Lastly, the drawings also capture the professionalism in terms of conscientiousness for auditors in both the UK and Thailand samples. Participants in both countries drew and discussed the hard-working aspect of auditing profession, the long hours of working, tight deadlines, and busy seasons in audits. For instance, Valentina, an Audit Assistant Manager in the UK drew a picture of a person with sad face working long hours (see Figure 5). Thus, professionalism here means being able to work hard under enormous time pressures and stresses. This is also clearly illustrated in a drawing by Yuna, an Audit Manager in the UK:

Figure 10 Yuna's drawing

According to Yuna, the stresses from working long hours (around 90 hours a week) and extensive responsibilities made people lose their hair and have no smile. Yuna expressed this quite vividly in her discussion of the drawing when she referred to auditing as 'not a fun job' and that auditors became 'angry' people over time.

For the Thailand sample, although working long hours and tight deadlines were mentioned, these were expressed in a softer tone and 'cushioned' with the advantage of the free time during non-busy periods, as shown in Olivia's drawing (see Figure 4). Olivia, an Audit Manager in Thailand drew a picture of a clock demonstrating the 'free time' and 'busy time'. She discussed the two sides of audit work in that people usually talked about the exhausting busy seasons, but actually there was a quiet time too. Olivia stressed the ability of auditors to have extended holidays during non-busy periods, which was something that differed from most other occupations.

Discussion and Conclusion

The coexistence of professional and commercial logics

This comparative research confirmed the literature on institutional logics in the auditing profession (Gendron, 2002; Spence & Carter, 2014) where both professional and commercial logics were found in the data. For the professional logic, participants in both the UK and Thailand referred to the guardianship role of auditors to the society, along with the adherence to accounting/auditing standards, and the exercise of technical, specialised knowledge and judgements. This resonates with the functionalist strand of professionalism with the public interest ethos at heart. On the other hand, elements of the commercial logic were also evident in the data from both countries. Both auditors from the UK and Thailand discussed the client-focus values where auditors can 'help' the clients in addition to protect the public. However, the UK sample tended to highlight the revenue-generation aspect more strongly than the Thailand sample. While the 'help' that auditors in Thailand gave to clients was in checking their accounts and minimising their risks for fraud, misstatements, or irregularities, the 'help' offered to clients in the UK sample implied the non-audit service expansion that generated more revenues to the firm. The discourse of 'keeping the clients' found in the UK sample also confirmed this commercial orientation. This is in line with Spence et al.'s (2016) research results that show the more commercial focus in the professionalism of Western countries when compared to the Asian counterpart.

Professionalism with seniority culture

This research also highlighted the importance of seniority culture in Thailand, which was different from the UK. Even within the Big Four audit firms, which are globalised and considered much more Westernised than Thai local firms, the seniority culture still made its presence in the professionalism of auditors in the Thailand sample. This has implications on the professional work of auditors as those who interact with clients on a daily basis tend to be junior levels. The seniority culture here is closely related to Hofstede's (2001) cultural dimension of power distance. Yet, the data also showed a sense of respecting ‘the elderly’ in addition to ‘the powerful’. It is common in Thailand for younger people to show respect and deference to those who are older, even when they are in the same level of organisational hierarchy. Based on the data in this research, building good client relationships in Thailand hence involved learning to present yourself in a humble, respectful way with extra cautions not to appear like ‘a tiger’ to the clients. Rather, being a timid, little ‘rabbit’ would help you approach and work with the clients more successfully in this context. The seniority culture also prevailed in the internal environment of the audit firms in Thailand as well. This did not mean that the junior auditors would not likely be involved in consultations or discussions by higher-ranking auditors (e.g. as argued by Cowperthwaite, 2010). Instead, the personality or self-presentation of junior auditors when they were with more senior staff would be very polite, respectful, and well-mannered.

The practical elements of professionalism

This present research also points to the practical elements of professionalism of auditors that were found in the data including the importance of teamwork and the ability to withstand hard work with long hours. Firstly, participants from both countries stressed the team-based nature of audit work, the interdependence and collaboration in a team where members helped one another, and hence the significance of people skills. Secondly, liking it or not, participants admitted the hardworking aspect of the auditing profession. Through drawings and verbal discussions, participants reflected the ‘true picture’ characterised the working lives of auditors where the work they did was seasonal, meaning that there were busy periods at certain times of the year. During these peak, busy periods, auditors had to work very hard with notoriously long hours (e.g. 90 hours a week) to meet the deadlines. Even though they also had quiet, non-busy periods (as strongly articulated in a Thailand sample), the enormous stresses, pressures, and exhaustion during busy seasons could take their toll on the health and well-being of auditors (reflected through the drawings of sad, unhappy faces and hair loss). As such, being professional in this sense could be interpreted as self-sacrifice. Consequently, these two practical elements of professionalism namely the teamworking ability and self-sacrifice through hard work were reported in this research. This adds to the existing literature on professionalism of accountant/auditors which usually focuses on, for example, technical knowledge and public interests (Fogarty, 2014), and overlooks the practical aspects like these which are also crucial for successful audit work and thus enable the profession to continue their dominance over their field (Muzio et al., 2013).

Note that the difference in terms of how direct and bold participants in both countries expressed the point about hard working (i.e. more direct for the UK sample vs balanced with the positives for the Thailand sample) deserves further investigations for cross-cultural implications. Was it due to the more reserved, face-saving culture, or emotional labour, or simply just positive thinking? Future comparative research into how professionals from different cultures express negative aspects of their work lives would shed more light on this matter.

In conclusion, this exploratory research has presented the professionalism of Big-Four auditors in the UK and Thailand as reflected through a visual method. Apart from the professionalism in a traditional, functionalist sense (e.g. public interest ethos and technical knowledge), auditors in both countries also expressed the client-focus values (although the UK sample showed a higher extent of revenue-generation pursuit) as well as the practical aspects of professionalism including the teamworking ability and self-sacrifice through hard work. Moreover, the professionalism in the Thailand sample was also impacted by the seniority culture which had implications for interpersonal dynamics with clients and within the firms. This study, with an unconventional, innovative method of drawings contributed to the sociology of professions by offering more nuanced understanding of auditing professionalism beyond the Western context. As the body of knowledge and research on professional services firms in emerging countries is currently limited (Belal et al., 2017), this research would be beneficial for both academics and practitioners alike. Ultimately, businesses operating in international, cross-cultural contexts would be more equipped to grow sustainably when the socio-cultural factors are taken into account.

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Future Competencies in Hotel Industry: An Exploration of Student and Hotel HR professionals Expectations in the Age of AI

Narinsiree Chiangphan,Ph.D.
Faculty of Business Administration, Thai-Nichi Institute of Technology

Abstract

This research studies the alignment between the current competencies (Knowledge, Skills, Attitudes) of fifteen third-year hospitality students and the expectations held by five HR professionals from five-star hotels in Bangkok regarding future employees in an AI-driven hospitality industry. Utilizing a qualitative research approach, this study analyzes data from in-depth interviews and content analysis. The findings highlight the existing skillsets of students alongside the demands of the contemporary hotel industry. Students have shown foundational knowledge of hotel operations and customer service skills. However, students possess limited knowledge of current industry trends, market dynamics, and regulatory compliance. Hotel HR professionals stressed the importance of employees understanding AI and technology, as well as up-to-date knowledge of industry trends and market conditions. Hotel HR professionals also emphasized the necessity for technical proficiency, advanced customer service skills (including personalized service and anticipating guest needs), strong problem-solving and critical thinking abilities, and a high degree of adaptability and flexibility. Additionally, a growth mindset, customer-focused attitude, and effective teamwork were identified as critical attitudinal components for success in the modern hospitality sector. The results point to a significant gap in students' understanding of AI applications, such as automated systems, data analytics, and emerging technologies in hospitality. To prepare students for the competitive hospitality industry, it is crucial to modernize curricula, focus on hands-on training, and foster a positive attitude toward continuous learning and self-development.

Keywords: 1) Competency Gap 2) AI in Hospitality 3) Hospitality Education 4) Workforce Development 5) KSA

Introduction

The hotel industry plays a vital role in the global economy, significantly contributing to job creation, revenue generation, and international tourism. According to the World Travel & Tourism Council (2024) report in 2023, the tourism and hospitality industry, including hotels, has created over 330 million direct jobs worldwide, accounting for approximately 10% of total global employment. However, in recent years, the industry has experienced transformations driven by technological advancements, particularly artificial intelligence (Gupta et al, 2022). These innovations have changed hotel operations, enabling improved efficiencies and the ability to cater specifically to guests' needs while using data as a decision-making tool.

As technology advances, consumer expectations also change. Today's travelers want hotels to be more than just a place to stay; they seek seamless service, tailored experiences, and prompt responses from hotel staff (Bagadiya & Kathiriya 2024). In 2023, it was indicated that travelers currently have higher expectations for quick and impressive service, with over 85% of travelers desiring personalized service experiences from hotels (PwC, 2023). Furthermore, a report from McKinsey & Company in 2023 states that hotels that utilize AI technology to enhance guest experiences have customer retention rates that are over 30% higher. Hotel guests expect quick responses and high-quality service. This ongoing change underscores the importance of preparing future hotel personnel with the necessary skills—knowledge, skills, and attitudes—to meet and exceed these expectations (Tuzunkan & Bruck, 2020).

Essential skills in the context of hospitality refer to the necessary attributes individuals must possess to succeed in the industry (Hsu & Tseng, 2022), which include technical knowledge related to hotel management and operations, as well as soft skills such as communication and emotional intelligence, which are crucial for delivering excellent service. Higher education institutions play a vital role in preparing students for careers in hospitality by fostering these skills within their curricula (Busulwa, Pickering, & Mao, 2022). However, it is essential that educational outcomes align with the insights and needs of industry stakeholders, including hotel HR managers responsible for hiring and developing future workforces (Philips, 2023).

However, the current landscape of hospitality education features diverse curricula designed primarily to cover various aspects of existing hotel management, with a focus on theoretical knowledge (Bista & Dagli, 2020), resulting in gaps in customer responsiveness and misalignment with the needs of employers. According to Alexakis and Jiang (2019), hotel operators are concerned about the essential skills that students acquire from hospitality education programs, emphasizing that curricula need to align with the actual market demands.

The existing teaching programs and curriculum cannot adequately respond to the rapid changes in technology and AI systems, particularly in applications such as chatbots for customer service inquiries, automated check-in systems that streamline guest arrivals, and data analytics that drive personalized guest experiences (Dimitriadou & Lanitis, 2023). The gap between current student knowledge and future competencies significantly impacts workforce development, indicating an urgent need for knowledge enhancement. Insights from hotel HR managers regarding expectations for job candidates in the age of AI, including the ability to adapt to technological changes and service skills that enhance guest experience, are critical areas that need further study (Marinakou, Giousmpasoglou, & Papavasileiou, 2024; Seal & Gupta, 2024). This would aid in skill mapping and developing effective teaching and preparation models for future hotel personnel. Nevertheless, there remains a significant gap between the skills that current students possess and those required by the industry.

Despite the growing importance of artificial intelligence in reshaping the hotel industry, there is a notable research gap concerning the alignment of hospitality education with the evolving competencies required by hotel HR professionals and future employees. While existing studies have highlighted the need for essential skills in hospitality, there is limited research that specifically examines the expectations of industry stakeholders in the context of AI-driven changes. Furthermore, the existing literature primarily focuses on theoretical frameworks and established practices, often overlooking the practical implications of technological advancements on skill requirements (Limna, 2023; Sigala, 2014).

Therefore, this research aims to:

1) Evaluate the competencies (knowledge, skills, and attitudes) possessed by current hospitality students.

2) Identify the competencies desired by hotel HR professionals in the Age of AI.

3) Analyze the gap between the competencies possessed by students and the expectations of hotel HR professionals to inform future workforce development strategies.

The objective is to present valuable insights to educators, HR managers, and policymakers to guide the development of curricula and workforce preparation, ensuring that new graduates in hospitality are equipped to succeed in a rapidly evolving and technology-driven industry.

Literature Review

Introduction to Competencies in Hospitality

Competencies in the hospitality industry are defined as a set of knowledge, skills, and attitudes essential for ensuring success and meeting the dynamic demands of the sector (Liu, Liu, & King, 2022; Shariff & Abd, 2022). These competencies strengthen all aspects of hospitality operations, from customer service to operational efficiency. In a rapidly growing industry, possessing the right competencies is vital for professionals to thrive and for businesses to maintain competitiveness (Khang, Jadhav, & Birajdar, 2023). Key competencies often highlighted include customer-service orientation, communication skills, time management, financial management, and problem-solving abilities.

The concept of Knowledge, Skills, and Attitude (KSA) provides a comprehensive framework for understanding the competencies required in the hospitality industry (Shariff & Abd Razak, 2022). Knowledge refers to the information and understanding a person gains through experience or education, encompassing both theoretical and practical aspects of hospitality operations (Ogutu et al., 2023). Skills denote the ability to perform tasks effectively and efficiently, including both hard skills (technical abilities) and soft skills (interpersonal and emotional competencies) (Marques & Monteiro, 2024). Attitude reflects an individual's disposition towards their work and colleagues, influencing motivation, professionalism, and overall job performance (Arshad et al., 2022).

The origin of the KSA framework can be traced back to occupational psychology and workforce development, where it was employed to identify and create effective job descriptions and training programs (Bennett, 1993). In the context of hospitality education, KSA assessments are integrated into curriculum design, ensuring that students acquire essential competencies that are directly applicable in real-world scenarios (Seufert, Guggemos, & Sailer, 2021). This approach helps educators develop training modules that emphasize not only the acquisition of knowledge but also the importance of attitudinal and behavioral components.

Within the hotel industry, KSA has become a vital tool for shaping workforce development and enhancing service quality. For instance, training programs that focus on these competencies prepare students and employees to handle diverse customer interactions, resolve conflicts, and adapt to changing environments (Morrison, 2019). The identification of KSA as a crucial element in hospitality training emphasizes its importance for improving service delivery and customer satisfaction.

For instance, leadership competencies are crucial in enhancing employee commitment and organizational performance. Studies have shown that effective leadership competencies can significantly influence employee commitment and organizational success in the hospitality sector (Irfan, 2021; Ramos-Maçães & Román-Portas, 2022; Rabiul et al.,2023), particularly in regions like Thailand. In Thailand, interpersonal skills are identified as a key competency for hospitality managers, which underscores their importance in leadership roles within the industry (Weerakit & Beeton, 2018). Moreover, research highlights the importance of core competencies such as training development and interactive marketing in enhancing hotel performance, further emphasizing the role of leadership competencies in driving success (Kengthong, Intase, & Wetprasit, 2024).

The AI Era and Essential Skills in the Hospitality Industry in the Age of AI

The era of artificial intelligence (AI) refers to a period where AI technology starts to play a significant role in various aspects of life, including different industries, particularly the service sector (Rashid & Kausik, 2024). The hotel industry, for instance, has been notably influenced by AI in enhancing service quality and operational efficiency (Nam et al., 2021). Research by Brynjolfsson and McAfee (2014) indicates that AI began to grow and develop rapidly in the early 2010s, expanding from data analytics to automated service systems. Currently, services such as room booking and customer service through chatbots are becoming commonplace.

Today, the hotel industry is adopting technology in all aspects to respond to trends and the rapidly changing circumstances of the modern era, allowing it to meet customer demands effectively. It is projected that by 2025, the service sector will significantly increase the use of AI and robotics in customer service, particularly in the hotel and tourism sectors, with an estimated value increase of over $25 billion (International Federation of Robotics, 2020). Moreover, the application of AI in service businesses is expected to generate an economic value of around $15.7 trillion worldwide, with approximately 133 million new jobs expected to be created in the service sector as a result of AI technology (PwC, 2018).

The transition to the AI era has a profound impact on the hotel industry, particularly concerning operations and customer service. A report by Ivanov (2019) illustrates how AI is used to enhance work processes, such as managing room reservations, analyzing customer data, and adjusting service processes to better meet travelers' needs. Additionally, AI facilitates smoother analysis of customer behavior, allowing hotels to offer personalized promotions and services (Tuzunkan & Bruck, 2020).

In the AI era, the demand for essential skills in the hotel industry has shifted noticeably, particularly the development of technological skills. A report by Nam et al., (2021) highlights that technical skills, such as operating hotel management systems and collaborating with AI, are crucial for employees in the industry. Furthermore, soft skills, such as effective communication and emotional intelligence, are also important for creating positive customer experiences and teamwork (Mattajang, R. 2023).

In conclusion, the emergence of artificial intelligence is fundamentally reshaping the landscape of the hospitality industry, necessitating a significant evolution in the competencies required of its workforce. As AI technologies, such as chatbots, automated systems, and data analytics, become integral to hotel operations and customer service, there is a pressing need for employees to possess not only technical skills for utilizing these innovations but also essential soft skills to enhance customer interactions (Wu & Putra,2023). The ability to adeptly leverage AI tools for operational efficiency while simultaneously delivering personalized and empathetic service defines the future of competency in the hospitality sector. Consequently, educational institutions and hotel operators must work collaboratively to adapt curricula and training initiatives that equip current and future employees with the diverse skillsets needed to thrive in this AI-driven era, ensuring they meet the evolving expectations of modern travelers and sustain competitive advantage in the marketplace.

Methods

This research is a qualitative study that utilizes the Competency Model framework, focusing on the analysis of the knowledge, skills, and attitudes necessary for personnel in the hotel industry in an era where AI technology is being adopted. Interview questions for this research were developed based on a thorough review of the existing literature on competencies in the hospitality industry, as well as insights gathered from the expectations of HR departments in five-star hotels.

The sample consists of:

1) Third-year students in the Tourism and Hotel Management program in Bangkok, totaling 15 individuals, maintained a GPA of over 2.00. As they were close to graduation, they were likely to soon enter the labor market. Therefore, their opinions were valuable for developing training programs that responded to industry demands (Friedrich & Kahn, 2016). Furthermore, the significance of student engagement in their learning process and the role of academic performance as an indicator of student motivation and dedication aligned with the criterion of having an average GPA over 2.00 (Kuh, 2009). According to the research by Hennink and Kaiser (2022), approximately 9–17 interviews were often sufficient to achieve data saturation in qualitative research, which was why this sample size was selected to ensure effective data collection.

2) Managers or staff in the human resources department of five-star hotels, totaling 5 individuals, were involved. Kilali (2016) highlighted that five-star hotels possessed the resources and capacity necessary to develop personnel, as well as a high readiness to use technology in customer service. High-quality service in five-star hotels was also essential for customer satisfaction and loyalty.

Data for this research was collected through in-depth interviews to understand the perspectives and experiences related to the skills required in this industry, according to the Competency Model framework, which consisted of knowledge, skills, and attitudes. For data coding and analysis procedures, the qualitative data obtained from the interviews were systematically organized and coded using content analysis. Initially, transcripts from the interviews were reviewed multiple times to familiarize the researchers with the content. The coding process involved identifying key themes, patterns, and significant statements related to the competencies discussed by the participants. Subsequently, data from both interview groups were analyzed to determine the frequency of mentions for each competency. This frequency was used to calculate ratios showing the relative importance of each competency for generating a radar chart and proposing strategies to improve student competencies for the AI era workforce.

Results

The results from in-depth interviews with 5 managers or employees in the human resources department from 5 different five-star hotels in Bangkok allow for a summary of the components of Knowledge, Skills, and Attitudes, as presented in Table 1.

Table 1 The in-depth interviews' results from managers or employees in the human resources department

Competency	Interview Responses		
Knowledge	Understanding of AI and Technology	"We need employees who have knowledge about using AI in the service industry, such as automated reservation systems, chatbots for customer service, and data analytics tools to understand customer behavior"	H2 H5
		"In the future, there may be new positions related to AI, and graduates who work in hotels might come from fields other than hospitality, potentially from digital disciplines"	H3
	Knowledge of Industry Trends and Market	"Employees should be aware of current trends in the hotel industry, such as sustainable practices, digital marketing strategies, and the impacts of COVID-19 on travel and tour-ism"	H1 H2 H5
		"It is very important for employees to stay updated with new trends because this industry changes constantly, and they need to know what customers want"	H2 H3
	Knowledge of Regulations and Compliance	"Knowledge of the laws that affect the hotel industry is essential, such as labor laws and data protection policies, which enable employees to comply with regulations and maintain a safe working environment"	H3 H4
		"In the hotel sector, we also need to consider safety and responsibility regarding customer data. This is something every employee should be knowledgeable about"	H4 H5
Skills	Technical Proficiency	"Employees in hotels need to be skilled in using various technologies, from standard hotel management software to advanced analytics tools that leverage AI to derive customer insights"	H1
		Having proficiency in technology will allow employees to work more efficiently and effectively, encouraging hotels to invest in new technological tools	H1 H2 H4
	Customer Service Skills	Employees must have the ability to engage with guests, respond to their needs, and create tailored experiences	H2 H3
		"They need to anticipate or predict what customers will want by observing their behaviors and characteristics"	H1 H4
		"Having diverse language skills is also important for effective communication with customers"	H5

Skills	Problem-Solving and Critical Thinking	"As AI tools provide data and can think on behalf of people, employees must be capable of distinguishing which information is valid and which is not, as well as what is accurate and applicable"	
		"Employees should be able to resolve immediate issues using their own judgment and experience rather than solely relying on AI data"	H4
	Adaptability and Flexibility	"As technology and guest expectations change rapidly, employees need to be able to adapt to new tools and shifting circumstances in the service environment"	H1 H3
		"They should be open-minded and not cling to old methods since everything changes very quickly"	H4 H5
Attitudes	Growth Mindset	"It is important to value employees who continuously develop themselves, especially in adapting to new technologies and changes in service delivery methods"	H1 H5
		"Hotels should support employees' learning and personal development to ensure everyone understands the new tools provided by the hotel"	H2 H4
	Customer-Centric Attitude	Employees should be dedicated to serving customers, placing the needs of the customers as a priority. They should emphasize customer satisfaction and be prepared to do everything to provide the best service"	H3 H5
		"Focusing on customers will help build long-lasting relationships with them"	H4
	Collaboration and Teamwork	"Employees should be able to share and exchange ideas or new working methods with their teams"	H4 H5
		"Working together is crucial because there are shifts that need to be managed. If there is a lack of job handover or effective teamwork, it could result in interruptions in customer service"	H1 H2 H5

Interviews with third-year students in the Tourism and Hotel Management program in Bangkok enabled the summarization of students' current knowledge, skills, and attitudes, as presented in Table 2.

Table 2 The in-depth interviews' results from students in the Tourism and Hotel Management program

Specific Competency		Example Student Responses	
Knowledge	Hotel Departments & Roles	"I know there's Front Office, Housekeeping, F&B, and Kitchen, but I'm not sure about all the specific roles within each department."	S2
		"Reception handles check-in/check-out, reservations, and guest inquiries. Housekeeping cleans rooms and public areas."	S6
	Online Booking Systems (e.g., Booking.com)	"I've used Booking.com. It's easy to search for hotels and compare prices."	S1
		"I know that customer can book and pay directly through these sites, often getting deals."	S7
	Hotel Management Systems (PMS)	"I don't really know what PMS is."	S4
		"It's a system the hotel uses to manage bookings and room availability, I think."	S11
	Digital Customer Service Trends	"Customers expect quick responses via various channels like email, social media, and chat."	S9
		"Online reviews are super important, they greatly influence decisions."	S14
Skills	Proactive Problem-Solving	"A friend forgot their script during the presentation, so I stepped in and delivered their part."	S1
		"One teammate was very slow, so I helped guide them through the process."	S3
	Prioritization & Time Management	"One teammate wasn't contributing, so I delegated tasks and set deadlines to keep the project on track."	S8
	Coordination & Collaboration	"During an event, I had to coordinate with the presenters and performers."	S4
		"During an event, I noticed a vendor needed help and intervened."	S5
	Communication & Negotiation	"In class project, we had conflicts on task allocation and deadlines. I used communication and negotiation skills to reach a consensus, resulting in a new work plan and clear schedule."	S 14
		"we had conflicts about target market and marketing strategies. I suggested using SWOT analysis which helped to reach a consensus based on data."	S 15

Skills	Observation & Quick Decision-Making	"I noticed a vendor needed help and decided to assist them; this improved my observation skills."	S5
	Attention to Detail	"Previous work was deleted, so I learned the importance of being careful and locking files to prevent time loss."	S2
Attitude	Adaptability & Proactive Learning	"I try to meet new people and always greet them.	S1
		"People have different needs and feelings; you have to adapt and find solutions on the spot."	S2
		"I manage pressure by staying calm and focusing on solutions."	S7
		"I try to improve my English skills because I need it for my future career."	S13
	Customer Focus & Empathy	"I assess the type of person the customer is; I listen carefully to what they want."	S5
		"I use polite and clear language."	S6
		"I listen carefully, offer solutions that benefit both parties, and when necessary escalate to a supervisor for difficult requests."	S7
		"Communicate clearly with colleagues and customers."	S9
		"I carefully listen and ask questions, use polite and clear language, and choose appropriate communication channels."	S14
	Resilience & Stress Management	"Practice talking to different people to build experience and resilience (e.g., part-time job)."	S8
		"I deal with high competition and changing customer needs by continuous self-improvement, learning new technologies, and enhancing service skills."	S14
		"I deal with high competition and rapid changes by continuously learning, adapting and improving skills."	S15

Conclusion and Discussion

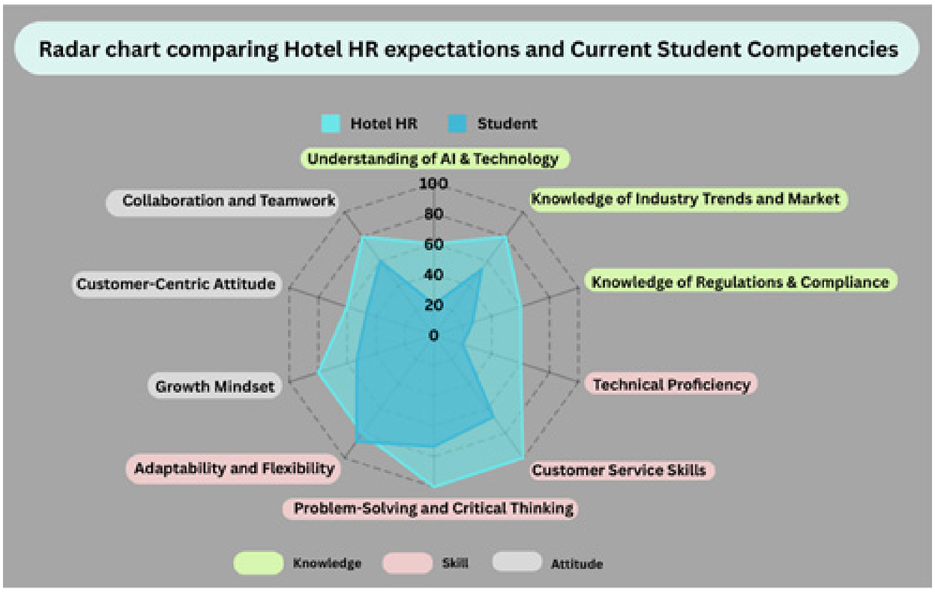

Figure 1 Radar chart comparing Hotel HR expectations and Current Student Competencies

This research investigated the competencies of hospitality students, comparing them to the expectations of Human Resources (HR) departments in five-star hotels. A radar chart analysis revealed discrepancies across three key dimensions: knowledge, skills, and attitudes. The findings highlight both student strengths and areas needing improvement, informing recommendations for curriculum development and better preparing students for the workforce.

In terms of knowledge, students demonstrated a solid foundational understanding of property management systems (PMS), online booking platforms, and digital customer service trends – aligning with industry fundamentals. However, knowledge of advanced technologies such as artificial intelligence (AI), along with industry trends and relevant regulations, fell short of HR expectations. This underscores the need for curriculum modernization to incorporate emerging technologies playing a crucial role in the hospitality sector.

Regarding skills, the research indicated that students possessed essential foundational skills such as problem-solving, time management, and teamwork. However, specialized skills – technical proficiencies, customer service expertise, and analytical thinking – required further development. This suggests a need for enhanced training, potentially focusing on hands-on training and simulated scenarios to better equip students for real-world work environments.

Concerning attitudes, students exhibited positive customer-centric attitudes and adaptability. Nevertheless, a growth mindset and robust teamwork skills needed strengthening. Educational institutions should foster a positive attitude towards lifelong learning, collaboration, and continuous self-improvement, enabling students to adapt to the ever-evolving hospitality landscape.

In conclusion, this research revealed that while students possess a strong foundation, significant gaps exist in the knowledge and skills essential for success in high-end hotels. Modernizing curricula, emphasizing hands-on training, and cultivating a positive attitude towards continuous learning and self-development are crucial for preparing students to thrive in the competitive hospitality industry.

Limitations and further studies

While this research provided valuable insights into the competencies of hospitality students in comparison to the expectations of HR departments in five-star hotels, several limitations were acknowledged. Firstly, the study's sample size, though sufficient for qualitative analysis, may not represent the broader population of hospitality students or HR professionals across different hotel tiers and geographic regions, which could limit the generalizability of the findings.Future research should consider expanding the sample size to include a more diverse range of hospitality students and HR professionals across various hotel tiers and geographic regions. Additionally, the focus on only two specific groups may overlook other key stakeholders, such as industry executives or operational staff, who could provide a more comprehensive view of competency requirements.

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Thai Qualifications Framework for Higher Education: A Comparative Study with Europe

Saowanee Thapphet

Abstract

Faculty competency assessment is crucial for improving the quality of higher education instructors and ensuring student learning outcomes align with Thailand's Higher Education Qualifications Framework (TQF: HEd 2023). This study examines Thailand's faculty competency assessment framework and compares it with European practices, particularly the European Qualifications Framework (EQF) and the Bologna Process.

Thailand's approach emphasizes Outcome-Based Education (OBE), Continuous Professional Development (CPD), and digital learning technologies. In contrast, European models integrate structured accreditation systems such as the UK Professional Standards Framework (UKPSF) and Finland's Pedagogical Competence Framework. Research-Based Teaching (RBT) is also widely applied in Germany and the Netherlands.

Findings highlight the need for Thailand to adopt clearer strategies for international faculty development, including integrating RBT into curricula, establishing structured accreditation systems like the HEA Fellowship, and strengthening global teaching competencies. Aligning Thailand's framework with international standards will enhance faculty quality and competitiveness in higher education.

Keywords: 1) Thailand Teaching Qualification 2) Higher Education 3) Comparative Education 4) Europe 4) Bologna Process

Introduction

Thailand's higher education system faces ongoing challenges in aligning faculty competency frameworks with international standards, particularly in the areas of structured accreditation and research integration. Although the Professional Standard Framework (PSF) and National Qualifications Framework (NQF) emphasize outcome-based education (OBE) and digital literacy, gaps remain in competency assessment compared to European models like the UK Professional Standards Framework (UKPSF), which offers structured pathways for accreditation through HEA Fellowships (Munit, 2023; Office of the Education Council, 2017; Thuntawech & Boriboonviree, 2024). Research integration also presents disparities, as European systems, such as Germany's inquiry-driven curricula, embed Research-Based Teaching (RBT), while Thai institutions often prioritize teaching due to limited incentives for research (Trần, Trần, & Nguyễn, 2021; Thuntawech & Boriboonviree, 2024). Additionally, the PSF and Southeast Asia Teacher Competency Framework (SEA-TCF) lack rigorous evaluation protocols like the UKPSF's five Areas of Activity, affecting faculty development and accreditation (Munit, 2023; Thuntawech & Boriboonviree, 2024). Despite Thailand's education reforms, such as the 2023 curriculum that promotes applied skills over rote learning (Sangwanglao, 2024; Sakon Nakhon Rajabhat University, n.d.), measurable benchmarks for faculty competencies, particularly in research integration and accreditation, remain limited. This situation highlights the need for Thailand to adopt hybrid strategies that maintain its OBE foundation while incorporating European-style accreditation systems and research integration to enhance faculty quality and global competitiveness (Trần, Trần, & Nguyễn, 2021; Munit, 2023; Thuntawech & Boriboonviree, 2024).

The quality of higher education is a critical factor in shaping the future of a nation's workforce, economy, and global competitiveness. In Thailand, the development of a qualified and competent teaching workforce is central to ensuring the effectiveness and relevance of its educational system. The Thai Qualifications Framework (TQF) and other related policies aim to enhance the standards of higher education by establishing clear criteria for teacher qualifications and competence. However, despite these efforts, there are ongoing challenges in aligning Thai higher education with international standards of teaching quality, particularly those in Europe.

European countries have long-established frameworks for higher education that emphasize faculty competence, professional development, and teaching excellence. The Bologna Process, the European Qualifications Framework (EQF), and the UK's Professional Standards Framework (PSF) are some of the prominent systems that have shaped the development of teaching qualifications in Europe. These frameworks offer a more structured and standardized approach to teacher accreditation, fostering greater transparency, mobility, and professional growth.

This study aims to compare Thailand's current teaching qualification system with the European models to identify potential areas for improvement. By examining the structure, requirements, and outcomes of faculty qualifications in both contexts, this study seeks to provide recommendations for enhancing the Thai teaching qualification system and aligning it more closely with international standards. This comparative analysis will contribute to the broader conversation on how to elevate the quality of higher education in Thailand and meet global expectations.

Literature Review

To become a teacher in Thailand, specific qualifications and certifications are required. Below are the key requirements:

In Thailand, to become a teacher, individuals typically need a Bachelor's Degree in Education (B.Ed.) or an equivalent qualification, which is a 4–5-year program offered by a Faculty of Education. This program covers essential subjects such as educational psychology, curriculum and instruction, educational management, and practical teaching experience. Alternatively, graduates from other fields who wish to pursue a teaching career must complete a Graduate Diploma in Teaching Profession (at least one year), which must be accredited by the Teachers' Council of Thailand (Khurusapha). To practice as a teacher, one must pass a teaching license examination administered by Khurusapha and complete the required period of supervised teaching practice. Career development is structured through a ranking system by the Ministry of Education, with teacher ranks progressing from Probationary Teacher to Teacher, Skilled Teacher, Expert Teacher, Master Teacher, and finally, Senior Master Teacher. For international certifications, English teachers may take the Teaching Knowledge Test (TKT) by Cambridge, or pursue TESOL, TEFL, and CELTA certifications to validate their teaching qualifications. These qualifications and certifications aim to uphold teaching standards and ensure educators are well-equipped to deliver quality education.

Educational Qualifications:

Bachelor's Degree in Education (B.Ed.) or Equivalent:

A 4–5-year program from a Faculty of Education.

Covers professional teaching subjects such as educational psychology, curriculum and instruction, educational management, and practical teaching experience.

Bachelor's Degree in Other Fields + Graduate Diploma in Teaching Profession:

For graduates from other fields who wish to become teachers.

Must complete a Graduate Diploma in Teaching Profession program (at least 1 year).

The program must be accredited by the Teachers' Council of Thailand (Khurusapha).

Examinations and Teaching License:

Teaching License Examination:

To become a qualified teacher in Thailand, candidates must pass the teaching license examination conducted by Khurusapha and complete the required period of supervised teaching practice. Career development for teachers follows the Ministry of Education’s ranking system, which allows progression through several levels, including Probationary Teacher, Teacher, Skilled Teacher, Expert Teacher, Master Teacher, and Senior Master Teacher. Additionally, teachers, especially those teaching English, can pursue certifications aligned with international standards to enhance their qualifications. These include the Teaching Knowledge Test (TKT) by Cambridge, which assesses essential teaching skills, as well as globally recognized certifications such as TESOL, TEFL, and CELTA that validate expertise in teaching English to speakers of other languages.

Certifications for teaching English as a foreign language include internationally recognized qualifications such as TESOL, TEFL, and CELTA, which validate a teacher's expertise in teaching English to non-native speakers. For those teaching in international schools that follow the International Baccalaureate (IB) curriculum, obtaining an IB Teaching Certificate is also beneficial. In Thailand, the teacher qualification system is regulated by Khurusapha (The Teachers' Council of Thailand), which is responsible for teacher licensing and upholding professional standards. Anyone wishing to teach in public or private schools must obtain a teaching license from Khurusapha and can progress in their career according to the Ministry of Education's structured ranking system.

The IB Teaching Certificate is specifically designed for educators teaching in international schools that implement the International Baccalaureate (IB) curriculum. In Thailand, the teacher qualification system is regulated by Khurusapha, also known as The Teachers' Council of Thailand, which is responsible for overseeing teacher licensing and maintaining professional standards. Anyone who wishes to teach in public or private schools in Thailand is required to obtain a teaching license from Khurusapha. Additionally, teachers can advance their careers based on the Ministry of Education's structured ranking system, which supports professional growth and development.

1. Thai Qualifications Framework (TQF)

The Thai Qualifications Framework (TQF) was developed to standardize and enhance the quality of higher education in Thailand. It establishes learning outcomes and competency-based education to ensure that graduates meet national and international standards. The framework consists of five key domains: ethical and moral development, knowledge, cognitive skills, interpersonal skills and responsibility, and numerical and communication skills. TQF also promotes Outcome-Based Education (OBE), which focuses on students achieving specific learning outcomes rather than merely completing coursework. Additionally, the framework aligns with Continuous Professional Development (CPD) for educators, ensuring that faculty members continually enhance their teaching methodologies and subject expertise.

TQF serves as a crucial tool for quality assurance in higher education institutions. It mandates institutions to follow a structured approach in curriculum design, teaching methodologies, and assessment strategies. Universities and academic programs must comply with TQF guidelines to be accredited by the Ministry of Higher Education, Science, Research, and Innovation (MHESI). The framework also emphasizes digital learning integration, reflecting the growing importance of technology in education. However, challenges remain in its implementation, particularly in ensuring that all institutions consistently apply its principles and effectively measure learning outcomes.

The qualifications and requirements for becoming a teacher vary across European countries, but most follow general guidelines. Typically, a bachelor's degree in education or a related field is required, with some countries mandating a master's degree or an additional teaching qualification, such as a professional teaching certificate. Many European countries have specialized teacher training programs; for example, aspiring teachers in the UK can enroll in the Postgraduate Certificate in Education (PGCE) (Wathusiri.ts, 2016). Practical teaching experience is also essential, as prospective teachers must complete in-school training to develop classroom management and instructional skills. Additionally, some countries require teachers to pass examinations or obtain a teaching license from relevant authorities. Language proficiency is another key requirement, particularly for non-native speakers who must demonstrate fluency in the language of instruction. In Germany, for instance, the teaching profession is divided into two main categories: Erzieher, who work with young children in kindergartens, and Lehrer, who teach at primary and secondary school levels. The educational and language requirements for Lehrer are generally higher than those for Erzieher (Reddit, 2024).

2. European Qualifications Framework (EQF) and Bologna Process

The European Qualifications Framework (EQF) was established to create a common reference system for qualifications across European countries, facilitating the recognition of academic and professional credentials. The framework consists of eight levels, covering basic education to doctoral degrees, and focuses on three key dimensions: knowledge, skills, and autonomy/responsibility. EQF enhances student and workforce mobility, making it easier for individuals to pursue education or employment in different European countries. It also serves as a bridge between various national qualifications frameworks, ensuring transparency and comparability of learning achievements.

Closely related to EQF, the Bologna Process aims to harmonize higher education across Europe through the European Higher Education Area (EHEA). This initiative promotes quality assurance, academic mobility, and mutual recognition of degrees, strengthening international collaboration among universities. A key feature of the Bologna Process is the three-cycle degree system (Bachelor’s, Master’s, and Doctorate), which aligns qualifications across Europe. Additionally, it encourages Research-Based Teaching and Pedagogical Competence, ensuring that faculty members are equipped with effective teaching strategies. While the Bologna Process has significantly improved higher education standardization in Europe, challenges such as disparities in implementation among countries and maintaining academic autonomy remain.

Both TQF and EQF serve as essential frameworks for enhancing education quality, but their approaches differ, with TQF being more nation-specific and EQF emphasizing international comparability and mobility.

3. Outcome-Based Education (OBE), Continuous Professional Development (CPD), and Digital Teaching

Outcome-Based Education (OBE) is an educational approach that focuses on achieving specific learning outcomes rather than merely completing coursework. It emphasizes student-centered learning, where teaching strategies, assessments, and curriculum design align with predefined competencies. In Thailand, OBE plays a significant role in higher education, ensuring that graduates acquire relevant skills for the workforce. Faculty members are encouraged to use innovative teaching methods, such as project-based learning and real-world problem-solving, to enhance student engagement and competency development. However, challenges remain in effectively measuring learning outcomes and ensuring consistent implementation across institutions.

To support OBE, Continuous Professional Development (CPD) and Digital Teaching are crucial for faculty members. CPD ensures that educators continuously update their knowledge, teaching strategies, and subject expertise through training programs, workshops, and peer learning. Digital Teaching, on the other hand, integrates technology into education, including online learning platforms, virtual simulations, and digital assessment tools. In Thailand, CPD is often facilitated by the Office of the Higher Education Commission (OHEC) and universities, providing structured opportunities for faculty development. The rapid advancement of technology presents both opportunities and challenges, requiring educators to adapt to new digital tools while maintaining high-quality teaching standards.

4. Research-Based Teaching and Pedagogical Competence

Research-Based Teaching is a key approach in European higher education, integrating academic research into the teaching process. This method ensures that students are exposed to the latest developments in their field, enhancing their analytical and critical thinking skills. Faculty members engage students in research activities, encouraging them to apply theoretical knowledge to real-world problems. This approach fosters innovation and a deeper understanding of academic disciplines. European universities prioritize research-based teaching to maintain high academic standards and contribute to knowledge creation. However, balancing research responsibilities with teaching commitments remains a challenge for many faculty members.

To support research-based teaching, Pedagogical Competence plays a crucial role in faculty development. European institutions emphasize structured teacher training programs to ensure that educators possess effective teaching methodologies. Initiatives such as the Higher Education Academy (HEA) Fellowship and the UK Professional Standards Framework (UKPSF) provide structured frameworks for developing teaching competencies. These programs focus on active learning strategies, student engagement techniques, and assessment methods. By prioritizing pedagogical competence, European universities enhance the quality of education and ensure that faculty members are equipped with the necessary skills to support diverse learning needs.

5. Assessment Based on TQF Framework and Khurusapha Teaching Standards

The Thai Qualifications Framework (TQF) and Khurusapha teaching standards serve as essential benchmarks for evaluating teaching and learning in higher education. The TQF ensures that educational programs align with national academic and professional expectations, focusing on key domains such as ethical and moral development, knowledge, cognitive skills, interpersonal relationships, responsibility, and analytical communication skills. Similarly, Khurusapha teaching standards emphasize professional ethics, pedagogical expertise, and continuous professional development to uphold the quality of teaching in Thailand. Together, these frameworks guide the assessment of educators and learners, ensuring that graduates meet both national educational goals and professional teaching requirements.

In practical application, assessment under these frameworks involves evaluating lesson planning, instructional methods, and student learning outcomes. Educators are assessed on their ability to integrate subject knowledge with effective pedagogy, classroom management, and student engagement strategies. Additionally, reflective practice and professional development activities are considered crucial for continuous improvement. The alignment of these assessments with the TQF and Khurusapha standards ensures that teachers are well-prepared to contribute to Thailand's educational system while maintaining high professional and ethical standards.

6. Use of ESG Standards and HEA Fellowship in Education

Environmental, Social, and Governance (ESG) standards play a growing role in higher education, influencing curriculum design, institutional policies, and assessment criteria. ESG principles encourage universities to integrate sustainability, ethical governance, and social responsibility into their teaching and research initiatives. By embedding ESG considerations into education, institutions prepare students to address global challenges, such as climate change, social equity, and responsible business practices. Universities that adopt ESG standards emphasize interdisciplinary learning, critical thinking, and ethical decision-making, aligning education with broader societal needs.

Additionally, the Higher Education Academy (HEA) Fellowship provides a framework for recognizing excellence in teaching and learning in higher education. The HEA Fellowship emphasizes student-centered pedagogy, inclusive learning environments, and reflective practice to enhance teaching effectiveness. Educators who pursue HEA Fellowship demonstrate their commitment to evidence-based teaching strategies, professional development, and academic leadership. When combined with ESG principles, HEA Fellowships contribute to a holistic educational experience that not only meets academic standards but also fosters sustainable and ethical practices in higher education.

7. Faculty Development Through Training Programs by OHEC and Universities

Faculty development is a crucial aspect of higher education, ensuring that educators continuously enhance their teaching skills, research capabilities, and professional competencies.

In Thailand, the Office of the Higher Education Commission (OHEC) collaborates with universities to design and implement training programs that address the evolving needs of academic staff. These programs focus on areas such as innovative pedagogy, curriculum development, research methodologies, and the integration of technology in teaching. By participating in these initiatives, faculty members stay updated with best practices and improve their ability to foster student engagement and academic excellence.

Universities also play a key role in faculty development by offering specialized workshops, mentoring programs, and international exchange opportunities. These initiatives allow educators to gain exposure to global teaching standards, interdisciplinary collaboration, and emerging educational technologies. Additionally, faculty development programs often emphasize leadership skills, ethical considerations in academia, and the promotion of lifelong learning. Through continuous professional development supported by OHEC and universities, faculty members can enhance their teaching effectiveness and contribute to higher education reform in Thailand.

8. Use of Professional Development Systems Such as UKPSF in Global Education

Professional development systems such as the UK Professional Standards Framework (UKPSF) provide structured guidelines for enhancing teaching and learning in higher education. UKPSF is widely recognized for promoting reflective teaching practices, student-centered learning, and continuous professional growth among educators. In Thailand, the integration of UKPSF within the Thai Qualifications Framework (TQF 2023) ensures that faculty members align their teaching strategies with internationally recognized standards. This approach fosters innovation in pedagogy, encourages inclusive learning environments, and enhances the overall quality of education.

In a broader international context, the European Qualifications Framework (EQF) and the Bologna Process serve as key frameworks for ensuring consistency and comparability in higher education across Europe. These frameworks emphasize competency-based learning, credit transfer systems, and lifelong learning opportunities. By incorporating elements from both TQF 2023 and European standards, Thailand's higher education system can enhance global recognition, facilitate international mobility for students and educators, and promote academic collaboration. The use of professional development systems such as UKPSF, EQF, and the Bologna Process ultimately strengthens higher education by fostering excellence, adaptability, and international engagement.

Content

The comparison of teaching qualifications for higher education in Thailand and Europe reveals both similarities and differences across four key aspects: Qualification Standards, Faculty Competency Focus, Quality Assurance, and Professional Development. Thailand follows the Thai Qualifications Framework (TQF 2023), while Europe adheres to the European Qualifications Framework (EQF) and Bologna Process, both of which aim to standardize and enhance higher education. In terms of Faculty Competency Focus, Thailand emphasizes Outcome-Based Education (OBE), Continuous Professional Development (CPD), and Digital Teaching, whereas European institutions prioritize Research-Based Teaching and Pedagogical Competence, focusing on integrating research into teaching. Quality Assurance in Thailand is governed by TQF and the Teachers' Council of Thailand (Khurusapha) standards, while Europe follows European Standards and Guidelines (ESG) and the Higher Education Academy (HEA) Fellowship, which emphasize structured faculty evaluations. For Professional Development, Thailand supports faculty training through programs led by OHEC and universities, while Europe offers a more formalized system, such as the UK Professional Standards Framework (UKPSF), to ensure continuous faculty growth. These aspects highlight Thailand's focus on structured national frameworks and digital integration, whereas Europe leans towards research-driven teaching and internationally standardized faculty development systems.

1. Qualification Standards

In Thailand, the qualification standards for higher education faculty are governed by the Thai Qualifications Framework (TQF 2023). This framework emphasizes learning outcomes and faculty competencies, ensuring that teaching, curriculum development, and quality assurance align with national educational goals. The TQF sets qualification levels that guide higher education institutions in maintaining academic standards.

In Europe, the European Qualifications Framework (EQF) and the Bologna Process serve as key frameworks for defining qualification standards. These frameworks emphasize academic competencies and international comparability of qualifications, enabling mobility and consistency across European higher education institutions.

2. Faculty Competency Focus

Thailand emphasizes faculty competencies through Outcome-Based Education (OBE), Continuous Professional Development (CPD), and Digital Teaching. The focus is on ensuring that teaching aligns with student learning outcomes and that faculty members continually develop their skills, particularly in integrating digital technology into education.

In contrast, European universities prioritize Research-Based Teaching and Pedagogical Competence. This approach integrates research into teaching methodologies, enhancing both the academic rigor and instructional effectiveness of faculty members. Faculty development programs often include training in pedagogy and advanced teaching techniques.

3. Quality Assurance

Quality assurance for faculty in Thailand follows the TQF framework and the teaching standards set by the Teachers' Council of Thailand (Khurusapha). Higher education institutions are required to implement these guidelines to maintain the quality of teaching and academic programs.

In Europe, quality assurance is guided by European Standards and Guidelines (ESG) and the Higher Education Academy (HEA) Fellowship. These frameworks emphasize structured faculty development, peer reviews, and continuous assessment to maintain high teaching standards. The HEA Fellowship recognizes teaching excellence and provides structured career development pathways for educators.

4. Professional Development

In Thailand, faculty development is supported through training programs organized by the Office of the Higher Education Commission (OHEC) and universities. These programs focus on enhancing faculty knowledge, teaching skills, and professional competencies.

In Europe, professional development is more structured, with frameworks such as the UK Professional Standards Framework (UKPSF). This system provides formalized training and assessment mechanisms for faculty, ensuring continuous professional growth and adherence to high teaching standards.

Table 1 A Comparative Analysis of Teaching Qualifications for Higher Education in Thailand and Europe

Aspect	Thailand (TQF 2023)	Europe (EQF & Bologna Process)
Qualification Standards	Thai Qualifications Framework (TQF)	European Qualifications Framework (EQF) and Bologna Process
Faculty Competency Focus	Outcome-Based Education (OBE), Continuous Professional Development (CPD), Digital Teaching	Research-Based Teaching, Pedagogical Competence
Quality Assurance	Assessed based on TQF framework and Khurusapha teaching standards	Uses ESG standards and HEA Fellowship
Professional Development	Faculty development through training programs by OHEC and universities	Uses Professional Development systems such as UKPSF
Aspect	Thailand (TQF 2023)	Europe (EQF & Bologna Process)

Teaching qualifications in Thailand follow the Thai Qualifications Framework (TQF), while Europe adheres to the European Qualifications Framework (EQF) and the Bologna Process. Thai faculty emphasize Outcome-Based Education (OBE), Continuous Professional Development (CPD), and digital teaching, whereas Europe focuses on research-based teaching and pedagogical competence. Quality assurance in Thailand aligns with TQF and Khurusapha standards, while Europe follows ESG standards and HEA Fellowship. Professional development in Thailand involves OHEC and university training, whereas Europe adopts structured frameworks like UKPSF.

Thailand's higher education framework operates under the National Qualifications Framework for Higher Education (NQF-HEd), emphasizing knowledge, skills, and competencies aligned with national priorities, with a credit system promoting lifelong learning (Royal Thai Embassy, Berlin, 2012; Sukhothai Thammathirat Open University, n.d.). Europe, in contrast, follows the EQF and Bologna Process, structuring education into Bachelor, Master, and Doctoral cycles, with standardized learning outcomes and the European Credit Transfer and Accumulation System (ECTS) facilitating academic mobility (CIMEA, 2025).

Competency standards in Thailand are defined by the Thailand Professional Qualification Institute (TPQI), with a five-tier framework emphasizing technical skills, subject mastery, and ethical conduct (Naresuan University, 2006; Vibulphol, 2015). In Europe, teacher training integrates pedagogical research, digital skills, and critical thinking to address global market demands (Education.com, 2025; CIMEA, 2025). Pathways to becoming a teacher in Thailand include a five-year bachelor's degree or one-year certificates, particularly in Rajabhat Universities, focusing on learner-centered approaches (Royal Thai Embassy, Berlin, 2012; Vibulphol, 2015). Europe typically requires a master's degree integrating subject expertise and pedagogy, with postgraduate certificates offering practical training, such as in the UK (Education.com, 2025).

Regarding recognition and mobility, Thailand's NQF-HEd aims for international equivalence but lacks cross-border recognition, while TPQI remains domestically focused (Royal Thai Embassy, Berlin, 2012; Naresuan University, 2006). Europe ensures qualification transferability through the EQF, ECTS, and Bologna Process, standardizing educational cycles for global alignment (CIMEA, n.d.).

Table 2 Comparison of Educational Frameworks: Thailand vs. Europe

Aspect	Thailand	Europe
Framework Design	National focus on cultural alignment	Regional harmonization (EQF/Bologna)
Teacher Training	Practical, supervisor-guided	Research-oriented, socially engaged
Mobility	Limited cross-border recognition	ECTS/EQF enables seamless mobility

This framework highlights Thailand's emphasis on localized competencies versus Europe's standardized, mobility-driven approach. Both regions prioritize pedagogical innovation but differ in implementation scope and international integration.7

Conclusion and Discussion

The evaluation of faculty competencies is essential for enhancing the quality of higher education instructors and ensuring that students achieve the expected learning outcomes in accordance with Thailand's Higher Education Qualifications Framework (TQF: HEd 2023). This study compares Thailand's faculty competency assessment framework with European practices, particularly those under the European Qualifications Framework (EQF) and the Bologna Process.

Findings indicate that while Thailand emphasizes outcome-based education (OBE), continuous professional development (CPD), and digital learning technologies, European models integrate structured accreditation systems such as the UK Professional Standards Framework (UKPSF) and pedagogical competency frameworks used in Finland. European universities also place strong emphasis on research-based teaching (RBT) and quality assurance through mechanisms like the Higher Education Academy (HEA) Fellowship and the European Standards and Guidelines (ESG).

To align Thailand's faculty development with international standards, key recommendations include integrating research-based teaching into curricula, establishing a structured faculty accreditation system similar to the HEA Fellowship, and strengthening professional development programs that focus on global teaching competencies. By adopting these strategies, Thailand can enhance its faculty competency assessment framework, ultimately improving the quality and international competitiveness of its higher education system.

The assessment of faculty competence in Thailand, as outlined in the Thai Qualifications Framework for Higher Education (TQF: HEd), emphasizes student-centered teaching and learning outcomes. This framework aims to assure the quality of graduates across various disciplines by setting standards that cover core areas such as knowledge, cognitive skills, interpersonal skills, responsibility, and numerical analysis.

However, European systems like the Bologna Process and the European Qualifications Framework (EQF) offer more systematic approaches to faculty accreditation and competence development. The Bologna Process seeks to create a more coherent European higher education area, promoting student and staff mobility, inclusivity, accessibility, and competitiveness. (European Commission, 2022)

Similarly, the EQF provides a common reference framework that links countries' qualifications systems, enhancing transparency and comparability (Ministry of Science, Technology and Innovation, 2005)

The UK's Higher Education Academy (HEA) Fellowship program further supports teaching quality by recognizing and accrediting individuals' teaching practices, fostering professional development, and promoting effective teaching strategies.

Integrating elements from these European frameworks could enhance Thailand's faculty competence assessment system, aligning it with international standards and improving teaching quality.

To enhance faculty competence assessment in Thailand and align it with European standards, several research-based approaches can be considered:

1. Research-Based Teaching Competence Assessment: In Germany, vocational education and training (VET) emphasizes competence-based education, focusing on the development of specific competencies relevant to the workforce. This approach involves integrating theoretical knowledge with practical application, ensuring that assessments are aligned with real-world requirements (Rüschoff, 2021).

2. HEA Fellowship and UK Professional Standards Framework (UKPSF): The United Kingdom's Higher Education Academy (HEA) offers a Fellowship program based on the UKPSF, which outlines the expectations for teaching and supporting learning in higher education. This framework provides a structured pathway for educators to gain recognition for their teaching excellence and engage in continuous professional development. (Advance HE, 2025)

3. Digital Technology and Blended Learning: Finland's education system effectively integrates digital tools and blended learning methodologies to enhance teaching and learning experiences. Research indicates that incorporating digital technology in education can lead to improved student engagement and learning outcomes (European Commission, 2013).

4. Continuous Professional Development (CPD) Systems: Establishing a robust CPD system is crucial for the ongoing development of educators. The HEA's CPD scheme, for instance, offers structured routes to Fellowship, encouraging educators to reflect on and enhance their teaching practices (Advance HE, 2025).

Benefits of alignment include enhanced faculty quality through competency-based assessments, improved institutional accreditation processes, and stronger student outcomes via research-integrated curricula. Application pathways involve adopting Thailand's Professional Standard Framework (PSF) evaluation protocols, integrating certification programs to moderate competency-performance relationships, and leveraging faculty development programs (FDPs) to foster innovation in teaching and assessment. By aligning with European accreditation models while retaining Thailand's OBE focus, the framework could better address employer needs for graduates with applied skills, ultimately elevating Thailand's position in global higher education markets.

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Research on Innovative Cultural Souvenir Design for Tourism: A Case Study of Yunnan Wamao

Chuan Zhou and Thanasit Chantaree
Faculty of Architecture, Khon Kaen University

Abstract

This research aims to investigate: (1) Study the historical culture of Wamao and the Wamao shape features of seven regions in Yunnan, China. (2) Study the Yunnan Wamao tourism souvenir market and tourism preferences. (3) Study the image and product design of Wamao tourist souvenirs. The research methods used in this research include: (1) Literature Analysis. (2) Comparative Form Analysis Method. (3) Secondary Data Analysis. (4) Questionnaire Survey Method. (5) Design Practice Methods.

The results of this research show that (1) Wamao in different regions has evolved distinct visual symbols, (2) Tourists prefer souvenirs that balance cultural authenticity, (3) Extracting Wamao elements enhances market competitiveness. The study proposes three souvenir types: (1) Decorative products: fridge magnets, badges, memo clips. (2) Practical products: round makeup mirrors, coasters, phone cases, canvas bags. (3) Cultural communication products: commemorative stamp sets, Wamao image stickers.

Keywords: 1) Tourism Souvenirs 2) Cultural Creative Design 3) Wamao Culture 4) Yunnan Folk Art 5) Design Innovation

Introduction

Wamao is a traditional architectural ornament placed on the ridges of residential roofs in Yunnan, China, symbolizing protection, warding off evil spirits, and bringing good fortune. Over time, different regions in Yunnan have developed distinctive Wamao designs influenced by cultural exchanges and regional development. This research focuses on the study of Wamao's history, symbolism, and visual characteristics across seven representative regions in Yunnan—Kunming, Chenggong, Heqing, Jianchuan, Fengyi, Chuxiong, and Yuxi. As a regional folk belief symbol, Wamao reflects the artistic characteristics of Yunnan's diverse cultural heritage. However, with the changes in modern architectural forms, high-rise buildings have replaced traditional bungalows, so Wamao has gradually weakened its functional positioning as a building component and faded out of people's daily lives.

In recent years, the rise of cultural and creative industries in the tourist souvenir market has provided new opportunities for the modern application of traditional culture. Using tourist souvenirs to show the unique local cultural connotation is a way of tourism promotion. Many famous tourist attractions use characteristic souvenirs to promote local tourism resources (Chen, 2010, pp. 107-110). For example, tourism souvenirs such as panda plush toys from Sichuan Province, China, and bronze figurines from the Sanxingdui Museum are highly favored by international tourists. Similarly, Thailand's "Good Goods" brand integrates contemporary design with traditional Thai craftsmanship and has gained significant popularity among Chinese consumers on the social media platform "Xiaohongshu".

In the existing research on Wamao culture, the international community mainly focuses on the study of traditional Chinese roof ridge beasts such as dragons, phoenixes, and lions, while folk roof ridge beasts such as Wamao have not yet become the focus of attention and research by international scholars (Ji, 2022, pp. 4-5). Secondly, Chinese scholars' research focuses on the cultural and historical significance and artistic characteristics of Wamao, and there is less research on the adaptation of Wamao culture to modern designed tourist souvenirs. This study explores the transformation methods of Wamao culture into tourist souvenirs, making Wamao culture a unique local tourist card in Yunnan, while allowing Wamao culture to be inherited and continued.

As a unique traditional cultural symbol of Yunnan, Wamao culture has profound cultural significance, but its transformation into the modern souvenir market still faces challenges. For example, young tourists lack knowledge of Wamao culture and find it difficult to balance traditional and modern designs. Therefore, this study aims to address these challenges by analyzing the styling characteristics of Wamao, studying consumer preferences, and developing innovative cultural souvenir designs that retain authenticity and attract modern tourists.

Therefore, the main objectives of this study include:

1. Study the historical culture of Wamao and the Wamao shape features of seven regions in Yunnan, China.

2. Study the Yunnan Wamao tourism souvenir market and tourist preferences.

3. Study the image and product design of Wamao tourist souvenirs.

Literature Review

Yunnan Wamao first came into the attention of scholars and started to study and successfully publish an article in 1993 in Li's "Folk Art of Various Ethnic Groups in Yunnan and Its Characteristics": this article mainly introduces and analyzes the folk art of the ethnic minorities in Yunnan at that time from the perspective of religious beliefs, but no insights are provided for the design of Wamao cultural products (Li, 1993, pp. 51). Huang (2023) explored the inheritance and innovation of Wamao culture, but lacked research on the promotion and dissemination of Wamao into the modern market (Huang, 2023, pp. 106). Wang & Tian (2023) studied the role of Wamao symbols in product design, emphasizing their cultural significance, but lacked discussion on consumer participation in the modern market (Wang & Tian, 2023, pp. 24-27).

The theoretical framework of this study integrates two key perspectives: semiotics and cultural and creative product design. First, the traditional Wamao image is symbolically refined, and through the simplification of lines, proportions and shapes, Wamao souvenirs are easier to market and spread culturally (Ji, 2022, pp. 47-50). Secondly, cultural and creative product design theory ensures that traditional elements are consistent with contemporary consumer needs (Gong, 2018, pp. 12-25). Together, these theories form the basis for designing innovative Wamao tourism souvenirs that balance folk cultural heritage and market demands.

Although existing studies have provided insights into the design and market appeal of Wamao cultural souvenirs, none of them have systematically explored how to innovatively integrate regional folk symbols such as Wamao into the tourism market. This study hopes to explore the combination of traditional and modern elements of Wamao in order to preserve its cultural values and attract modern consumers.

Methods

This study adopts five research methods: literature analysis, comparative modeling research, secondary data analysis, questionnaire survey, and design practice to ensure a deep understanding of Yunnan Wamao culture, and combines it with design practice to modernize it and adapt it to the needs of the tourist souvenir market.

1. Literature analysis method: by collecting relevant books, papers and other literature materials, we can understand the history and cultural connotation of Yunnan Wamao, the modeling characteristics of different regions.

2. Comparative form analysis method: using the comparative study method of forms, a detailed comparison of the morphology, expression characteristics, decorative elements, and body shape of the Wamao in seven regions of Yunnan was conducted.

3. Secondary data analysis method: collects existing Wamao souvenirs in the souvenir market and e-commerce platforms for comparison.

4. Questionnaire survey method: investigate tourists' purchasing intentions and product preferences for Wamao tourism souvenirs.

5. Design practice method: in design practice, the traditional Wamao shape is transformed into a modern design. By extracting and transforming the Wamao image, we design tourist souvenirs that conform to modern aesthetics.

Results

1. Study the historical culture of Wamao and the Wamao shape features of seven regions in Yunnan, China

1.1 The History and Culture of Wamao in Yunnan

Wamao originates from the folk beliefs of China's Yunnan Province, and serves as a traditional architectural ornament primarily used for household protection, warding off evil, and bringing blessings and good fortune. Wamao is a unique clay product in Yunnan that integrates architectural decoration culture, folk custom art and religious culture. It is an intangible cultural heritage of China. The Wamao is widely distributed in Yunnan, mainly in Kunming, Chuxiong, Yuxi, Wenshan, Dali and Lijiang (Sha, 2009, pp. 269).

Figure 1 Wamao on the roof of a Yunnan residence

The origin of Wamao has a deep relationship with architectural components, folk customs, and religion. In short, it can be concluded that the Wamao is an external manifestation of the collective cultural consciousness of the local people to pray for auspiciousness and a happy life (Gong, 2018, pp. 39-42). The cultural significance of Wamao as a guardian figure that "drives out evil spirits and suppresses mischief" originates from folk totem worship. Influenced by Taoism, Buddhism, and local beliefs, some Wamao designs incorporate religious symbols, such as the Bagua patterns on Heqing Wamao and the geometric design elements of Jianchuan Wamao.

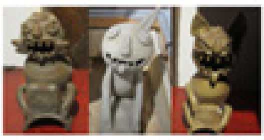
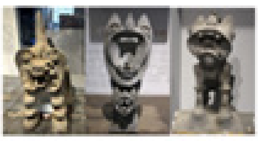
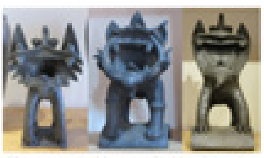
Figure 2 Wamao holding Bagua

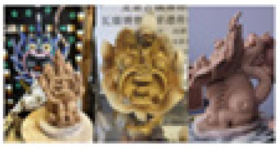
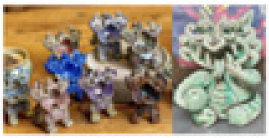
Wamao is a traditional folk culture that integrates geographical environment, lifestyle, religious beliefs, architectural decoration, etc. It reflects the important aesthetic concepts and folk habits of the local people in Yunnan and has extremely high artistic research value (Li, 1993, pp. 51-58).

1.2 Study on the shape features of Wamao in seven regions of Yunnan

Due to different regions and different techniques, the styles of wamao are also diverse. Most of the Wamao with very different shapes are due to regional differences, so distinguishing them by place names is a classification method that is generally recognized by everyone. For example, the Wamao used in Kunming are called Kunming Wamao. There is a custom of placing Wamao in many areas of Yunnan, such as Kunming and Chenggong, Heqing, Jianchuan, Fengyi, Chuxiong, Yuxi, etc. This study selected Wamao from the above seven regions for shape analysis:

Table 1 Features of wamao in different regions

Area	Structure	Material Feature	Shape Feature
Kunming Wamao	 Figure source: Photographed by the author	**Material:** Yellow pottery clay, glaze. Wamao from the Kunming region is made from locally sourced yellow clay and is usually glazed.The Kunming Wamao has the word "king" on its head, which retains the most tiger features.	The head is a spherical pottery jar, and the body is made of a cylindrical pottery jar. **Face:** pointed ears, prominent eyes and nose, wide mouth, sharp teeth, and triangular whiskers attached to the left and right cheeks. **Body:** squatting on a piece of mud tile with bent limbs, holding a "Chinese Bagua" pattern in front of the chest, and the tail is upturned or curled behind.
Chenggong Wamao	 Figure source: Photographed by the author	**Material:** Yellow pottery clay, unglazed. The Chenggong Wamao is made by throwing and is usually not glazed, and there is usually a diamond-shaped Bagua diagram on the chest.	Wamao consists of two pottery jars, the smaller is the head and the larger is the body. **Face:** the mouth is slightly open, revealing four teeth, the eyes are round and bulging, and the ears are erect. **Body:** the two front legs are upright and the hind legs are bent, squatting on the tiles.
Heqing Wamao	 Figure source: Photographed by the author	**Material:** Pottery Clay, unglazed. The Heqing Wamao is made of clay and not glazed. After firing, it is gray or black color.	The biggest feature of the Wamao in Heqing is that the head is big and the body is small. **Face:** the mouth is so big that it occupies 2/3 of the head, with 4 teeth, the tongue sticks out, and the two ears stand upright above the eyes. **Body:** the limbs are strong and have joints, the body is decorated with scales, and the tail is upturned.
Jianchuan Wamao	 Figure source: Photographed by the author	**Material:** Black pottery, unglazed. Black pottery has the characteristics of fine texture and strong plasticity, and the embeyo body is not glazed and colored.	Jianchuan tile cats are handcrafted using local black pottery materials. **Face:** the mouth is half the size of the whole. There are six whiskers on either side of the cheeks, pointed teeth and ears, pointed horns on the top of the head. **Body:** limbs upright, tail upturned, has scales or round decorations on the body.

Fengyi Wamao	 Figure source: Photographed by the author	**Material:** Pottery Clay, glaze. The Fengyi places emphasis on stylistic decoration. Compared to tile cats from other regions, each part of the Fengyi tile cat features more intricate and detailed designs.	The overall style of wamao is more refined, belonging to the new generation of wamao in Yunnan. **Face:** 9 teeth, six whiskers around the mouth, one or two horns on the head. **Body:** upright limbs, with patterns on the body and an upturned tail.
Chuxiong Wamao	 Figure source: Photographed by the author	**Material:** Pottery Clay, unglazed. In terms of craftsmanship, employ the most primitive techniques.The first impression is simple and honest.	The overall style of wamao is more cute, the Chuxiong wamao is solid and leans towards a more realistic depiction. **Face:** the mouth is raised and the nose is triangular, making it look more like a cat. **Body:** the limbs are erect or lying, and the overall shape is like a domestic cat.
Yuxi Wamao	 Figure source: APP-Xiaohongshu ID:Wamao5110	**Material:** Pottery Clay, glaze. Using the outlining technique of Yuxi blue and white porcelain, various patterns are carved on the surface of the Wamao, which is then coated with a transparent glaze, making both the shape and decoration more diverse and modern.	The Wamao from the Yuxi region is a new generation of Wamao, resulting from the fusion of designs from various regions. **Face:** the facial expressions are more detailed, incorporating anthropomorphic features. **Body:** the traditional posture of the Wamao has been anthropomorphized, and the body is adorned with decorative patterns.

Reference: Compiled by the author based on field research (2024).

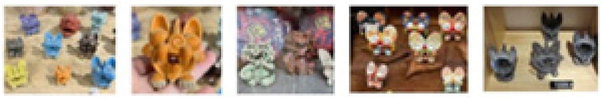
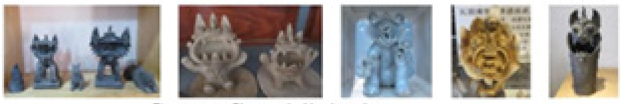
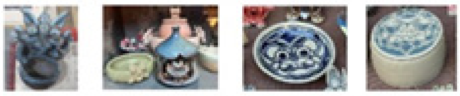
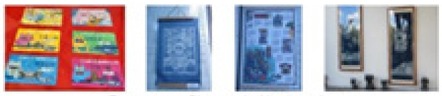
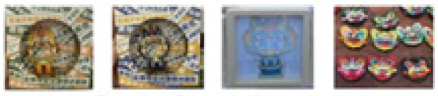
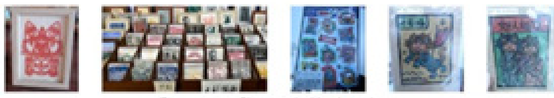
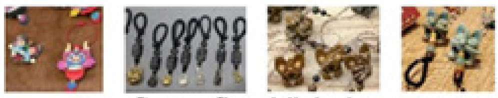
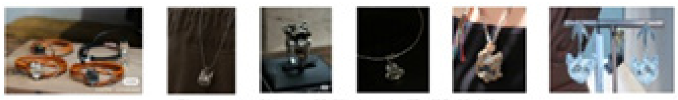
Yunnan has a vast territory and many ethnic minorities. Each ethnic group has its own cultural characteristics, and there are also places where they blend with each other. The same is true for Wamao's design. The modeling proportions of traditional Wamao are not completely constrained by stylized proportions. The most important thing about the modeling changes of Wamao is the reasonable combination of shapes. Then the craftsmen can freely play with it according to local customs and the functions of Wamao, so as to highlight the temperament of Wamao and achieve both form and spirit in the modeling. The geographical environment has an impact on the evolution of Wamao's shape. For example, the Wamao in Jianchuan and Heqing areas are exaggerated, while the Wamao in Yuxi is smaller and more delicate. Therefore, Wamao has unique visual symbols, symbolic functions and cultural carrying capacity, which are the basis for Wamao's visual identification and important symbols that carry its cultural connotations. Through innovative design methods, it can be transformed into a tourist souvenir that meets the needs of the modern market.

2. Study the Yunnan Wamao tourism souvenir market and tourist preferences

2.1 Study the Yunnan Wamao tourism souvenir market

Through field research at Yunnan Provincial Museum, Wamao Museum, tourist attractions and souvenir shops in Yunnan Province, and data collection on Chinese social and shopping platforms like "Taobao" and "Xiaohongshu", a total of 46 sets of Wamao cultural products were gathered. These products were categorized into four types: figurines, household items, accessories, and common cultural and creative products. The research revealed that the current designs of Wamao cultural and creative products on the market are relatively traditional and monotonous, with most products focusing on ceramic figurines and illustrations. Compared to other souvenirs, these products tend to have a single design and are often overpriced. Additionally, ceramic products are large, fragile, and not easy to carry. As shown in the following table:

Table 2 Wamao cultural and creative souvenirs available on the market

Product Type	Quantity	Product	Price Range
Ceramic Ornaments	10	Small  Figure source: Photographed by the author	¥ 120 - 280
		Large  Figure source: Photographed by the author	¥ 400 - 800
Daily Necessities	17	Cup / Jar  Figure source: Photographed by the author	¥ 260 - 500
		Ashtray  Figure source: Photographed by the author	¥ 200 - 350
		Bag / T-shirt  Figure source: Chinese APP-Xiaohongshu ID: da_ye_zai_ci	¥ 200 - 500
		Bus Card / Wall Calendar  Figure source: Photographed by the author	¥ 100 - 300
Cultural and Creative Products	13	Fridge Magnet  Figure source: Photographed by the author	¥ 38 - 60
		Postcard  Figure source: Photographed by the author	¥ 10 - 30
		Pendant  Figure source: Photographed by the author	¥ 50 - 150
Jewelry	6	 Figure source: Chinese APP-Xiaohongshu ID: 5374554002	¥ 300 - 800

Reference: Compiled by the author based on field research (2024).

2.2 Study the tourist preferences

According to a letter released by the Department of Culture and Tourism of the Yunnan Provincial Government: Since the outbreak of the COVID-19 pandemic, China's tourism industry has experienced an economic downturn since 2019, and will not rebound until 2022. The province will receive 840 million tourists in 2022, and 1.04 billion domestic and foreign tourists in 2023.

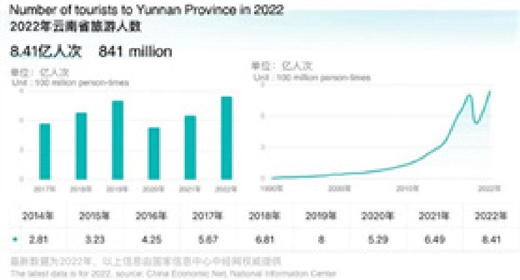


Figure 3 Statistics of tourist numbers in Yunnan Province in recent years

User research is an important part of investigating consumer needs, and the results can be used as a reference for product target groups, product purchasing environment, and product core positioning. In this study, the research subjects are tourists. Since these groups are large and it is impossible to survey all of them, the Taro Yamane formula can help researchers select a reasonable number of respondents under limited resources to ensure the representativeness of the data. Therefore, the Taro Yamane formula is used to calculate and obtain the sample size:

$$n = \frac{N}{1 + N \cdot e^2}$$

n = required sample size

N = population size (the total population being surveyed)

e = margin of error

In order to calculate the sample size, we first need to determine the population size N, using a 95% confidence level and a 0.05 margin of error for calculation. In 2023, the province will receive a total of 1.04 billion domestic and foreign tourists. Therefore: Population size N = 1,040,000,000, and margin of error e = 0.05.

$$n = \frac{1,040,000,000}{1 + 1,040,000,000 \cdot (0.05)^2}$$

$$n = \frac{1,040,000,000}{1 + 1,040,000,000 \cdot 0.0025}$$

$$n = \frac{1,040,000,000}{1 + 2,600,000}$$

$$n = \frac{1,040,000,000}{2,601,000}$$

$$n \approx 400$$

According to the Taro Yamane formula, for a population size of 1.04 billion and an allowable error range of 0.05, the required sample size is approximately 400 people.

According to the results of TravelDaily's "2024 China Tourism Consumption Trend Insight Report", young people have become the main force of tourism consumption, whether it is local tours within the province, domestic inter-provincial tours, short-distance trips to Japan, South Korea/Southeast Asia, or long-distance international tours to Europe and the United States. Among them, tourists aged 18-45 are the main force in China's tourism market. This age group has a higher willingness to consume and a certain economic ability, and is willing to pay for unique travel experiences and souvenirs (TravelDaily, 2024).

Therefore, in this study, the target user group is identified as tourists aged 18-45, who account for over 60% of the main purchasing demographic for tourism souvenirs. Tourists aged 18-45 are the group with the strongest purchasing power in Yunnan’s tourism market. Accurately targeting this group can help Wamao souvenirs quickly enter the market and gain recognition. According to the survey data from 400 respondents:

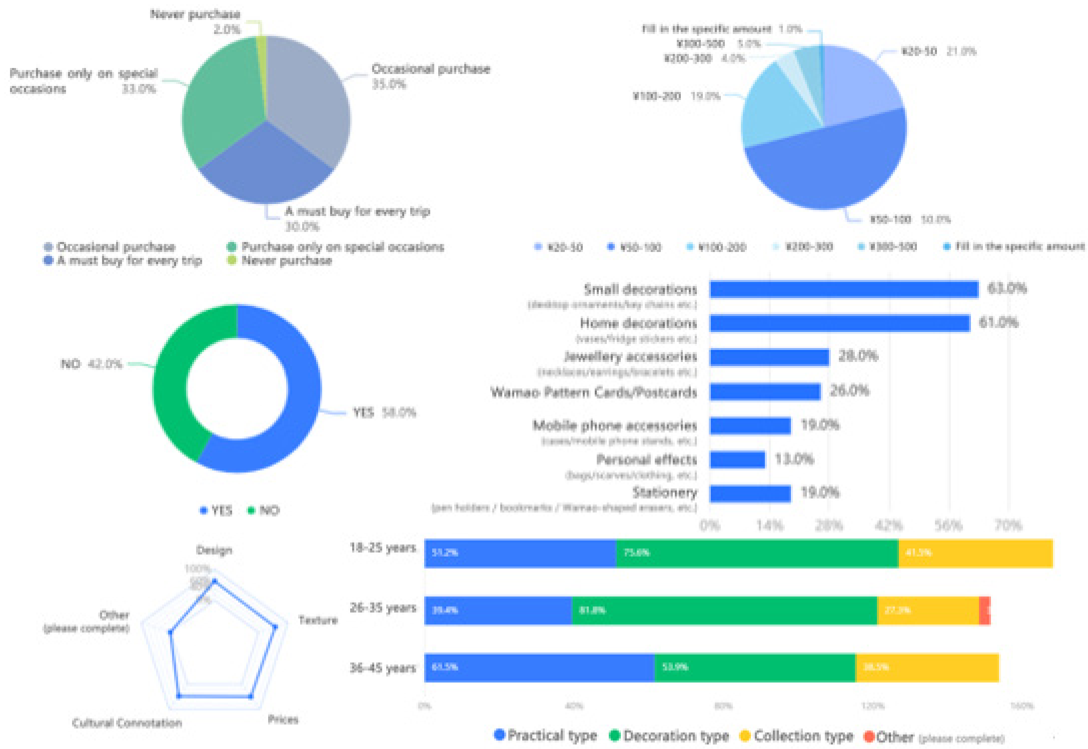


Figure 4 Questionnaire survey results

The survey showed that half of the respondents said they bought souvenirs to commemorate their travel experiences, which shows that tourists regard souvenirs not only as decorations but also as representatives of local culture. 58% of the respondents said they “know about Wamao culture”, and 42% “don’t know about Wamao culture”. The respondents generally accept the price range of Wamao souvenirs in the range of 50-100 yuan. Among them, tourists aged 26-35 give priority to decorative products (81.8%), which reflects the trend of young consumers buying aesthetic items as social media souvenirs (TravelDaily, 2024). 61% of the respondents prefer small decorations with local cultural elements, such as refrigerator magnets, postcards, bookmarks, etc.; 54% of the respondents prefer local handicrafts, which shows that combining Wamao’s traditional symbolism with functionality can enhance its appeal to tourists.

3. Study the image and product design of Wamao tourist souvenirs

3.1 Visual extraction of Wamao images

The production of the Wamao is to extract the meaning of tiger, and combine the concept of "break up first and then composed" into the elements of livestock and exaggerated styling techniques, making its shape more general and allegorical, so that the visual impact of the Wamao is more intense (Dong & Tian, 2015, pp. 91-94). The Wamao image is extracted through the following design method:

(1) Application of Wamao's visual characteristics

The visual characteristics of Wamao are its most distinctive features and an essential source of inspiration for souvenir design. The core visual symbols of Wamao, such as exaggerated facial expressions, pointed ears, decorative patterns, etc., are extracted and made suitable for modern souvenir design. By extracting and simplifying the animal form, ear-tip design, and facial expressions of Wamao, products can be endowed with a strong and recognizable Wamao identity.

Figure 5 Wamao's visual elements

(2) Modern integration of color usage

Traditional Wamao typically features plain colors, but modern designs can incorporate vibrant color schemes to infuse new energy and visual appeal into products. At the same time, the traditional colors of Yunnan's local ethnic minorities can be added, such as the bright color elements in ethnic minority embroidery and clothing, to make the products more local and culturally profound.

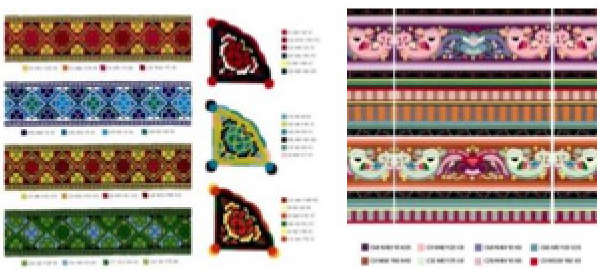


Figure 6 Colors in ethnic group embroidery patterns

(3) Wamao Element Symbol Reorganization

In the design, Wamao elements are simplified and symbolized, and complex patterns are transformed into simple lines or geometric shapes to adapt to the minimalist style of modern design. In the traditional Wamao image, the prominent big mouth, round eyes and slightly majestic expression are the most recognizable elements, symbolizing the traditional cultural significance of protection and exorcism. When designing, these elements are abstracted into geometric shapes, such as the arc of the big mouth and the dots of the eyes, and simplified into easily recognizable symbolic forms.

The traditional Wamao has a more majestic image, while the modern design tends to convey a more friendly and friendly emotion. Therefore, the Wamao's expression can be softened, such as making the eyes rounder and the corners of the mouth smiling, thus presenting a protective and warm image. This symbolized Wamao image is more likely to impress modern consumers and enhance the emotional appeal of the image. By symbolizing and extracting Wamao's elements for pattern evolution, the final Wamao image sketch is as follows:

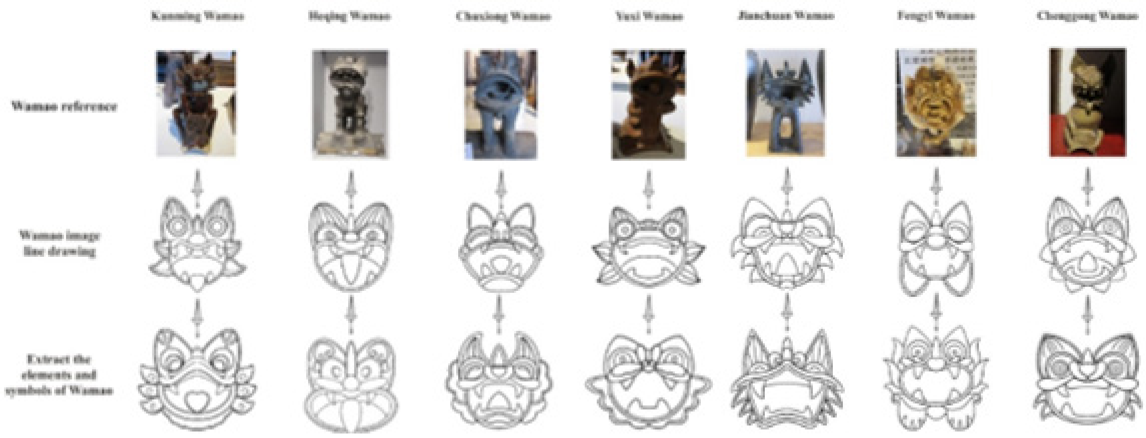


Figure 7 The final Wamao image sketch

3.2 Summary of designs for Wamao image

The symbolized Wamao image is used in multiple image designs to form a series of designs. By designing Wamao images with different shapes and expressions, a rich combination series is formed, allowing consumers to combine and collect in a variety of ways, while strengthening the recognition of Wamao elements. The author combined the basic shape of Wamao with the traditional patterns of ethnic minorities in Yunnan, and chose the embroidery patterns of the Yi people in the design. In terms of color, the bright colors of the embroidery of Yunnan Yi costumes were used, so that the product not only retains the traditional auspicious meaning, but also increases the visual appeal. The final Wamao image design is as follows:

Table 3 The design of the Wamao image and ethnic minority patterns

Kunming Wamao	Heqing Wamao	Chuxiong Wamao	Yuxi Wamao
			
Jianchuan Wamao	Fengyi Wamao	Chenggong Wamao	
			

Reference: Compiled by the author (2024).

3.3 Prototype finished product

The symbolized Wamao design is more adaptable and can be applied to various types of souvenirs, such as stickers, badges, fridge magnet, etc. These symbolic designs not only maintain the cultural connotations of Wamao, but also adapt to a variety of product forms and meet the needs of modern consumers for simplicity and practicality. The prototype of the cultural and creative souvenir design based on Wamao elements is as follows:

Figure 8 Small badge design model

Figure 9 Round mirror design model

Figure 10 Fridge magnets design model

Figure 11 Coaster design model

Figure 12 Memo clip and roof fridge magnet combination

Figure 13 Wamao image phone cases

Figure 14 Wamao image canvas bag

Figure 15 Wamao image stamp set design

Figure 16 Wamao commemorative sticker set design

Conclusion and Discussion

Conclusion

This study focuses on the visual characteristics analysis and tourist souvenir design of Wamao culture in Yunnan, and focuses on the historical culture, regional modeling characteristics and market and visitor analysis. Through systematic modeling research and design practice, this study draws the following main conclusions:

(1) Through a comparative analysis of Wamao forms from seven regions in Yunnan, this study examines key design characteristics, and combined with the development trend of the cultural and creative industries, a series of innovative design solutions are proposed. Innovation in souvenir design: Innovative design not only facilitates the modern adaptation of Wamao culture but also enhances its competitiveness in the cultural and creative market.

(2) The survey results show that tourists value cultural symbolism, so it is necessary to preserve the traditional symbolic characteristics of Wamao. In addition, tourists of different ages have different preferences for souvenir types, so product design should meet the needs of different consumers. Data-driven design method based on user needs makes the product more in line with the target market. A product design direction that incorporates user needs not only satisfies

the purchasing preferences of the target consumer group, but also enhances the market appeal of the souvenir.

(3) Preserving Core Cultural Elements in Visual Design: by extracting the most representative symbols (such as Wamao's large mouth and pointed ears), this study simplifies and modernizes these features to ensure that the designs maintain both traditional cultural significance and modern aesthetic appeal.

Discussion

The innovation of this study lies in integrating traditional cultural elements with the modern tourism souvenir market, exploring cultural and creative design can revitalize local traditional culture.

(1) Traditional cultural symbols (such as the Wamao head design and Bagua decorations) can be adapted to modern market demands through symbolic reconfiguration, geometric abstraction, and flat design techniques.

(2) Future research could expand Wamao's imagery into a character-based IP, incorporating cartoon and anthropomorphism to enhance its accessibility and commercial value.

(3) Future work could explore the incorporation of other Yunnan cultural symbols, such as Dongba script and ethnic embroidery, to establish a more systematic and diversified range of cultural souvenirs.

This study explores innovative applications of Wamao culture in tourism souvenir design. The research results provide a feasible solution for the modernization of Yunnan local culture and also contribute to the modernization of Yunnan local culture.

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Decoding the Intentions of Plant-Based Food Consumers in Chiang Mai, Thailand: Health Consciousness and Religious Beliefs

Aticha Kwaengsopha[1], Renus Sermboonsang[2], Pichayapak Laemkhom
[1,2]Faculty of Business Administration, Chiangmai University

Abstract

The growing global interest in plant-based diets has transformed consumer behavior, particularly among health-conscious individuals and those motivated by religious beliefs. This study explores the key drivers influencing consumer attitudes and purchase intentions toward plant-based food in Chiang Mai, Thailand, with a specific focus on the moderating roles of health consciousness and religious beliefs. Using quantitative research design, data were collected from 400 respondents through a structured survey, and Structural Equation Modeling (SEM) was employed to test the relationships between consumer knowledge, the marketing mix (4Ps), and purchase behavior. The findings confirm previous research that underscores health consciousness and religious beliefs as key factors influencing consumer decision-making. But they also reveal an important divergence: Health-conscious consumers are highly price-sensitive, but religious consumers are not. Multi-group analysis (MGA) confirms that consumer knowledge positively influences perceptions of product, price, place, and promotion, yet only price exerts a direct influence on purchase behavior. Environmental concerns play an unexpectedly minor role, with only 2% of respondents citing sustainability as a primary driver of plant-based food consumption. These insights have profound implications for marketing strategies and policy development: if businesses want to appeal to health-conscious consumers, they will need to highlight affordability and economic value, not only nutritional benefits, thereby positioning plant-based food as both a health-conscious and cost-effective alternative.

Keywords: 1) Plant-Based Food 2) Consumer Behavior 3) Health Consciousness 4) Religious Beliefs 5) Purchase Intention

Introduction

1.1 Current Trends in Food Consumption and the Rise of Plant-Based Food in Thailand

In recent years, global food consumption patterns have shifted significantly. Consumers are becoming more mindful of their dietary choices, particularly health-conscious individuals who prioritize plant-based diets, actively reducing their meat consumption. This shift has prompted the food industry, restaurants, and food manufacturers to adapt to evolving consumer preferences by developing plant-based food products.

These transformations are happening in Thailand as well. Market forecasts predict that the Thai plant-based food industry is expected to reach 45 billion baht in 2024, with an average annual growth rate of 10%, which is comparable to the global market growth rate (Patcharapoj Nantramas, Apinan Supaserm, & Pimchat Ekanchan, 2020). This growth is driven by a shift in consumer behavior, emphasizing health consciousness, environmental sustainability, and ethical concerns related to animal welfare.

Thailand has long embraced plant-based diets, especially during the annual Vegetarian Festival (Tesagan Gin Jay), rooted in Chinese religious traditions that honor deities through plant-based consumption. In 2024, spending on vegetarian food during the festival is estimated to reach 45 billion baht (Amarin TV Online, 2024). Many Thai consumers following vegetarian diets believe that abstaining from meat contributes to merit-making and prevents harm to living beings, aligning with Buddhist principles (Arunsaengsuree, P., 2015).

Flexitarians represent Another key consumer segment, individuals who aim to reduce meat consumption while maintaining dietary flexibility. This group adopts plant-based diets in varying degrees, either limiting certain meats or alternating between plant-based and animal-based meals. In Thailand, approximately one in four people (17-18 million individuals) identify as flexitarian (Rerai Janyeam, 2021), demonstrating a growing demand for plant-based alternatives.

1.2 Chiang Mai as a Hub for Plant-Based Consumption

Chiang Mai serves as the economic, trade, and investment center of Northern Thailand, with a population of approximately 1.8 million people, making it the fourth most populous province in the country (Wikipedia Online, 2025). The city's diverse demographic includes Thai locals, Thai Chinese communities, and expatriates, creating cultural and religious diversity. Furthermore, Chiang Mai has been recognized as the third most vegan-friendly city in the world, boasting one of the highest concentrations of vegan restaurants globally (The Vegan World, 2023).

Beyond its culinary landscape, Chiang Mai's unique cultural identity, spiritual significance, and traditional cuisine influence consumer choices, particularly in dietary preferences. Given these factors, plant-based food represents a particularly relevant emerging market opportunity in Chiang Mai.

While existing research has extensively examined the impact of health consciousness and environmental concerns on plant-based food consumption, there is limited understanding of the intersection between religious beliefs and purchase intentions for plant-based food in Thailand, particularly in Chiang Mai. Previous studies have largely focused on Western markets or broader national trends, neglecting the unique cultural, religious, and demographic factors shaping consumer behavior in this region.

Additionally, although health consciousness is widely recognized as a determinant of plant-based food consumption, research has yet to explore the extent to which price sensitivity moderates the purchasing decisions of health-conscious consumers compared to religious consumers. While prior studies suggest that environmental sustainability plays a crucial role in adoption of plant-based food, preliminary findings in this study indicate that environmental concerns may have a surprisingly minor impact on consumer behavior in Chiang Mai. This challenges conventional wisdom and calls for further investigation into why sustainability considerations are not a primary driver in this context.

Moreover, while previous literature has analyzed the role of consumer knowledge in shaping attitudes toward plant-based food, little attention has been given to how consumer knowledge influences perceptions of the marketing mix (4Ps) and purchase behavior in Thailand. The direct impact of price on purchase decisions, as identified in this study, suggests an underexplored dynamic that requires further examination.

Research Objectives

1. To examine the influence of health consciousness and religious beliefs on the intention to purchase plant-based food.
2. To assess how consumer knowledge and the marketing mix (4Ps) shape purchase decisions.
3. To provide insights for businesses to develop effective marketing strategies based on consumer preferences.

Literature Review

2.1 Concept of Consumer Attitudes and Their Influence on Behavior

The concept of attitude is widely used to explain consumer behavior and is fundamental to marketing theory and practice. Attitudes serve as dependent variables when assessing the impact of marketing promotions and as independent variables in predicting brand or product selection (Smith & Swinyard, 1983). Attitude is defined as "an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of our environment. It is a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object. Thus, attitude reflects how individuals think, feel, and behave toward an aspect of their environment, such as a retail store, television program, or product.

Attitudes consist of three primary components (Mothersbaugh, Hawkins, & Kleiser, 2020)

1. Cognitive component (knowledge) - consumer knowledge, perceptions, thoughts, and opinions about a particular object.

2. Affective component (feelings) – emotional responses or reactions toward an object.

3. Behavioral component (Response Tendencies) – a consumer's likelihood to act based on their attitudes.

Being inner phenomena shaped by personal experiences, these attitudes are not directly observable, yet they strongly influence consumer decision-making (Assael, 2001; Hanna & Wozniak, 2001; Schiffman & Kanuk, 2004; Solomon, 2018). While Attitudes are typically stable and resistant to change, they can evolve over time due to new experiences and environmental factors.

2.2 Consumer Attitudes Toward Plant-Based Food

Attitudes toward plant-based food are shaped by exposure to marketing communications and consumer education (Smith & Swinyard, 1983). Research indicates that greater familiarity with plant-based food leads to higher acceptance (Assael, 2001; Schiffman & Kanuk, 2004; Solomon, 2018). However, certain barriers exist, including food neophobia (fear of unfamiliar food), concerns over safety, and perceived artificiality (Elzerman et al., 2013; Wilks, 2017). Additionally, some consumers lack knowledge about alternative protein sources and the health and environmental benefits of plant-based diets (Lea et al., 2006; Hoek et al., 2011).

Research on alternative protein acceptance has identified facilitating factors such as health benefits—lower saturated fat, higher fiber content, and disease prevention (Lea et al., 2006)—and environmental consciousness (Nakanithi, 2020). The hindering factors include unfamiliar texture, lack of knowledge, and higher costs compared to traditional meat (Elzerman et al., 2013; Wilks, 2017; Lang, 2020).

2.3 The Role of the Marketing Mix in Consumer Decision-Making

The Marketing Mix (4Ps) framework is widely applied in business strategies to meet consumer needs and enhance satisfaction (Kotler & Keller, 2012), influencing consumer demand and purchase decisions. The four key components are

1. Product – The tangible or intangible offering that delivers value to consumers.

2. Price – The monetary value associated with the product, representing the total cost to consumers.

3. Place – The distribution channels and locations where the product is available, affecting accessibility and convenience.

4. Promotion – The communication tools used to inform, persuade, and influence consumer attitudes and purchasing behavior.

Leading plant-based food companies have actively employed marketing mix strategies to increase consumer awareness, educate the public, and boost product adoption.

2.4 Consumer Attitudes and Purchase Intentions Toward Plant-Based Food

Based on the literature review, the study proposes the following hypotheses.

H1: KnowledgeScore has a positive and significant effect on Product.

H2: KnowledgeScore has a positive and significant effect on Price.

H3: KnowledgeScore has a positive and significant effect on Place.

H4: KnowledgeScore has a positive and significant effect on Promotion.

2.5 The Context of Plant-Based Food Consumption in Thailand

Existing Studies indicate that the primary motivations for plant-based food consumption in Thailand stem from health benefits and religious beliefs (Suthin, 2012; Arunsaengsuree, 2015). According to Jilpattanakul (2021), religious motivation influences dietary choices more strongly than environmental or health concerns. These motivations include devotion to deities (e.g., Guan Yin) and adherence to Islamic dietary laws.

2.6 Health Consciousness and Plant-Based Food Consumption

Health consciousness is defined as “the degree to which individuals are aware of the impact of lifestyle choices on their health” (Lee et al., 2014, p.31). health-conscious consumers tend to exhibit positive attitudes toward organic, natural, and minimally processed food (Chen, 2009; Nagaraj, 2021; Talwar et al., 2021) and are more likely to adopt plant-based food (Hoek et al., 2004; Vainio et al., 2016; Siegrist & Hartmann, 2019). They often prioritize ingredient transparency, functional food components, and self-assessment of personal health (Bornkessel et al., 2014; Marsall et al., 2021).

2.7 Religious Belief and Plant-Based Food Consumption

Religiosity is defined as “the degree to which beliefs in specific religious values and ideals are held and practiced by an individual” (Delener, 1990, p. 27, as cited in Agarwala, Mishra, & Singh, 2019). Substantial evidence supports the notion that religious beliefs significantly influence consumers' attitudes, values, and actions, including food consumption behaviors, which are closely linked to moral, ethical, and cultural dimensions that shape behaviors reflecting values and perspectives on life (Arbit et al., 2017; Thomson, 2015; Santovito, Campo, Rosato, & Khuc, 2023).

Yun et al. (2008) found that consumers prioritize purchasing products that do not contradict their religious beliefs, while Arifin et al. (2023) demonstrated a positive correlation between religious consciousness and purchasing behavior. Additionally, Muhamad & Mizerski (2010) identified five key factors that illustrate religion’s influence on consumer purchasing behavior: motivation, affiliation with a religious group, knowledge about religion, awareness of the social consequences of following a religion, and religious commitment.

In Thailand, where over 90% of the population adheres to Buddhism, there are no rigid dietary restrictions, but Buddhist teachings emphasize doing good, avoiding harm, and purifying the mind. This flexibility allows Thais to choose their diet based on personal preference. However, the concept of karmic retribution is referenced in both Buddhism and Hinduism, encapsulated in the idea that "one will reap what one sows" (Agarwala, Mishra, & Singh, 2019). Buddhism discourages harming living beings, leading devout Buddhists to abstain from meat consumption to attain merit and inner peace (Jilpattanakul, 2021). Consequently, plant-based food products align with religious values, fostering a positive consumer attitude toward such products.

However, the level of religiosity influences consumers’ sensitivity to perceived risks, particularly in new purchasing situations such as innovative food products, novel concepts, or unfamiliar brands (Agarwala, Mishra, & Singh, 2019). This may impact the acceptance of plant-based food innovations. Furthermore, consumers with strong religious values tend to exhibit frugal spending behavior, prioritizing price and opting for discounted products compared to those with weaker religious values (Agarwala, Mishra, & Singh, 2019). This factor also plays a role in consumers' purchasing decisions regarding plant-based food products.

2.8 Likelihood of Behavior Variables in Plant-Based Food Consumption

The likelihood of consumer behavior in plant-based food consumption is shaped by a complex interplay of health consciousness, religious beliefs, consumer knowledge, price sensitivity, environmental concerns, and strategic marketing interventions. Health-conscious consumers are more inclined to adopt plant-based diets, driven by their association with disease prevention and overall well-being, yet economic constraints often dictate purchase frequency and brand choices (Su et al., 2024; Jallinoja et al., 2024). Religious adherence, particularly within Buddhism and Hinduism, fosters a deep-rooted commitment to plant-based diets, wherein ethical and spiritual motivations override price sensitivity, making these consumers more consistent adopters (Arslan & Aydın, 2024; Donovan, 2018; Kwaengsopha et al., 2024). However, consumer knowledge plays a pivotal role, as those with greater awareness of nutritional benefits and sustainable advantages are significantly more likely to integrate plant-based foods into their diets, whereas misconceptions about protein deficiency and taste expectations hinder widespread acceptance (Hoek et al., 2011; Graça et al., 2015).

Studies indicate that health consciousness indirectly affects plant-based food consumption through product perception and attitudes (Romero & Ladwein, 2023). Therefore, the Influence of the 4Ps on Likely Behavior (LB) proposes the following hypotheses.

H5: Product affections positively influence Likely Behavior (LB).

H6: Price affections positively influence Likely Behavior (LB).

H7: Place affections positively influence Likely Behavior (LB).

H8: Promotion affections positively influence Likely Behavior (LB).

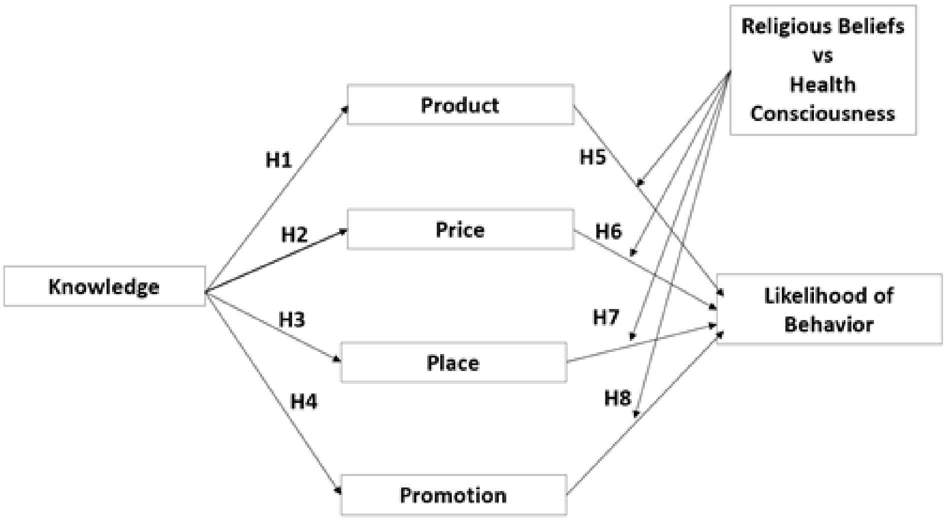

Figure 1 Conceptual Model

Methods

The population of this study comprises consumers in Chiang Mai Province who are potential buyers of plant-based food products. This includes various consumer segments, such as vegetarians, vegans, strict Buddhist vegetarians (Jae), flexitarians, health-conscious individuals, and those with specific medical conditions requiring dietary adjustments. As the exact population size is unknown, a sample size determination method was employed.

To ensure statistical rigor, the study adopts Seymour Sudman's (1976) guideline, which suggests that local-level sampling should range between 200 and 500 participants (cited in Wetchasarn, 2003:192). Accordingly, a total of 400 respondents were selected using convenience sampling, a non-probability sampling technique that allows for data collection from accessible and willing participants. This approach is appropriate given the exploratory nature of the study and the practical constraints in reaching a randomly selected sample of the target population.

This research follows a quantitative research design utilizing survey methodology to collect primary data from Thai consumers. The data collection instrument is a structured self-administered questionnaire, designed to capture relevant insights into consumer attitudes and behaviors toward plant-based food products. The questionnaire consists of five main sections as follows.

1. Demographic Information-Age, gender, education level, income, dietary preferences, and frequency of plant-based food consumption.

2. Health Consciousness and Religious Beliefs- Perceived importance of diet on personal health and motivations for consuming plant-based foods.

3. Consumer Knowledge- understanding of plant-based food options and their nutritional benefits.

4. Consumer Affections on Marketing Mix (4Ps)

5. Purchase Intention- Likelihood of purchasing plant-based products, factors influencing

decisions, and brand preferences. Responses are measured using a 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree), ensuring consistency in data analysis.

3.2 Data Analysis

To validate the reliability and accuracy of the research model, the study employs a Confirmatory Factor Analysis (CFA) to assess the construct validity of latent variables. This process ensures that the observed variables effectively represent the underlying theoretical constructs.

Following CFA, Structural Equation Modeling (SEM) is applied to test the hypothesized relationships between health consciousness, religious beliefs, consumer knowledge, and purchase intention. SEM enables the examination of direct and indirect effects among variables while controlling for measurement errors. The model fit is evaluated using standard goodness-of-fit indices, such as the Chi-square statistic (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR).

Results

4.1 Descriptive Analysis

4.1.1 Demographic Characteristics of Respondents

The demographic composition of the sample (400 Chiang Mai respondents, selected by convenience sampling) is as follows. Gender Distribution- Most respondents were male (59.80%), while females accounted for 40.30%. Age Distribution- The largest proportion of respondents (62.50%) fell within the 23–40 age range, followed by those aged 22 years or younger (25.50%). Educational Background- A significant proportion of participants had attained at least a bachelor's degree, suggesting a well-educated consumer base. Occupation- A considerable number of respondents were employed in private-sector companies. Income Level- Most participants reported an average monthly income ranging between 20,000 to 30,000 THB, indicating a middle-income consumer group.

4.1.2 Knowledge of Plant-Based Food Products

58% of respondents demonstrated a high level of knowledge and understanding of plant-based food products. Health consciousness and religious beliefs emerged as the two dominant factors influencing consumer attitudes toward plant-based diets.

Therefore, the researcher conducted the Structural Equation Modeling (SEM) Analysis to examine the direct and indirect relationships between knowledge levels, health consciousness, religious beliefs, the marketing mix (4Ps), and purchase intention of plant-based food products. The SEM approach allows for a comprehensive assessment of how these key factors interact, identifying the extent to which health and religious motivations mediate or moderate the influence of consumer knowledge on purchase behavior while also evaluating the effectiveness of marketing strategies in shaping consumer decisions.

4.2 Structural Equation Modeling (SEM) Analysis

4.2.1 Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) was performed using AMOS 26.0 to assess the reliability and validity of the measurement model. CFA is an essential step in structural equation modeling (SEM) to confirm whether the observed variables adequately represent the latent constructs. The analysis evaluates the goodness-of-fit (GOF) of the model by comparing empirical data with the hypothesized measurement framework.

Table 1 presents the standardized factor loadings, composite reliability (CR), average variance extracted (AVE), and Cronbach's alpha (α), which are essential indicators for assessing the reliability and validity of the measurement model. The findings offer an empirical evaluation of the structural robustness of the constructions used in this study.

The factor loadings indicate the strength of the relationship between observed variables and their respective latent constructions. Generally, a factor loading above 0.70 is considered acceptable, as it demonstrates a strong correlation with the underlying construction. In this study, certain items such as C52 (LB), Product27 (GPB), Price35 (GPI), Place40 (PCE), and Promo50 (GCI) (Product27 states that Plant-Based Food products are certified according to standards, Price35 is reasonable compared to taste, Place40 is online distribution channels (e.g., Facebook, Instagram, Line, Shopee, Lazada, TikTok), Promo50 is promotional campaigns during food festivals e.g., Vegetarian Festival, Vegan Fair, Health Expo, Northern Agricultural Fair).exhibit relatively high loadings, reinforcing their relevance in representing the respective constructs. However, the absence of factor loading values for several items suggests that further validation may be required to confirm their significance within the measurement model.

Composite reliability (CR) assesses the internal consistency of the constructs, with values above 0.70 indicating satisfactory reliability. The results confirm that most constructs exhibit strong reliability, particularly LB (0.911), GPB (0.875), GPI (0.871), and GCI (0.833), which surpass the recommended threshold. However, PCE (0.737) falls within a moderate reliability range, and some constructs lack reported CR values, necessitating additional scrutiny to ensure their measurement consistency.

The average variance extracted (AVE) measures the proportion of variance captured by the latent constructs about measurement error. A value exceeding 0.50 is commonly accepted as an indicator of convergent validity. The results reveal that LB (0.824) meets this criterion, suggesting a robust explanatory power for this construction. However, GPB (0.356), GPI (0.302), PCE (0.255), and GCI (0.240) exhibit AVE values below the acceptable threshold, indicating that these constructs may have limited ability to account for the variance in their respective indicators. In line with Fornell and Larcker (1981), convergent validity can still be considered adequate if AVE is below 0.50 but CR exceeds 0.60, suggesting that some constructs may still be valid despite their low AVE scores.

Cronbach's alpha (α) provides an additional measure of internal reliability, with values above 0.70 indicating strong consistency. The findings confirm that LB (0.895) demonstrates high reliability, while GPB (0.671), GPI (0.628), and GCI (0.609) fall within the moderate reliability range. However, PCE (0.507) exhibits weak reliability, suggesting that item refinement may be necessary to enhance its internal consistency.

Table 1 Standardized factor loadings, CR, AVE, and Cronbach's alpha

Items	Construct		Factor loadings	CR	AVE	α
C51	<---	LB				
C52	<---	LB	1.808	0.911	0.824	0.895
Product23	<---	AGP				
Product24	<---	AGP				
Product25	<---	GPB				
Product27	<---	GPB	2.355	0.875	0.356	0.671
Price32	<---	GPB				
Price33	<---	GPB				
Price34	<---	GPI				
Price35	<---	GPI	2.197	0.871	0.302	0.628
Place36	<---	GPI				
Place39	<---	GPI				
Place40	<---	PCE	1.501	0.737	0.255	0.507
Promo42	<---	PCE				
Promo47	<---	PCE				
Promo48	<---	PCE				
Promo49	<---	GCI				
Promo50	<---	GCI	1.956	0.833	0.240	0.609

Notes: CR: Composite reliability, AVE: Average variance extracted, α: Cronbach's alpha

Table 2 presents the results of the main hypothesis testing, examining the relationships between knowledge scores, the four marketing mix elements (4Ps), and their influence on likely behavior (LB).

The results confirm that knowledge score has a significant positive effect on all four marketing mix elements: product (H1: $\beta = 0.073$, $p < 0.001$), price (H2: $\beta = 0.058$, $p < 0.001$), place (H3: $\beta = 0.037$, $p < 0.001$), and promotion (H4: $\beta = 0.040$, $p < 0.001$). These findings suggest that consumers with higher knowledge scores exhibit greater awareness and consideration of product attributes, pricing strategies, distribution channels, and promotional efforts when engaging with plant-based food products. The significant results across all four dimensions support the hypothesis that consumer knowledge influences marketing perceptions in a meaningful way.

Table 2 Main hypothesis testing results

Path				Estimate	S.E.	C.R.	P-value	Result
H1	KnowledgeScore	→	Prod	0.073	0.013	5.507	***	Supported
H2	KnowledgeScore	→	Price	0.058	0.012	4.618	***	Supported
H3	KnowledgeScore	→	Place	0.037	0.01	3.578	***	Supported
H4	KnowledgeScore	→	Promo	0.04	0.01	4.01	***	Supported
H5	Product	→	LB	0.173	0.103	1.682	0.092	Not supported
H6	Price	→	LB	0.587	0.134	4.368	***	Supported
H7	Place	→	LB	0.059	0.206	0.285	0.776	Not supported
H8	Promotion	→	LB	0.272	0.174	1.567	0.117	Not supported

Notes: ***, * Significant at the .001 and .05 levels.

However, when examining the influence of the 4Ps on likely behavior (LB), the results reveal that price (PRI → LB: $\chi^2 = 3.967$, $p = 0.046$) exhibits a significant moderating effect. This suggests that religion and health consciousness moderate the relationship between price and likely behavior, so that consumer responses to pricing strategies vary based on wether they are motivated by religious or health concerns. In contrast, product (PROD → LB: $\chi^2 = 0.58$, $p = 0.446$), place (PLA → LB: $\chi^2 = 0.869$, $p = 0.351$), and promotion (PROM → LB: $\chi^2 = 0.029$, $p = 0.866$) do not show significant moderation effects, which indicates that these factors influence likely behavior consistently across groups.

The model fit indices, including the Normed Fit Index (NFI), Incremental Fit Index (IFI), Relative Fit Index (RFI), and Tucker-Lewis Index (TLI), remain stable across groups, further supporting the robustness of the findings. The results imply that price sensitivity is influenced by religious and health-conscious motivations, highlighting the importance of tailoring pricing strategies to align with ethical, spiritual, and wellness-driven consumer preferences.

However, when assessing the impact of the marketing mix elements on likely behavior (LB), the findings reveal mixed results. Among the four elements, only price (H6: $\beta = 0.587$, $p < 0.001$) significantly influences LB. In contrast, the effects of product (H5: $\beta = 0.173$, $p = 0.092$), place (H7: $\beta = 0.059$, $p = 0.776$), and promotion (H8: $\beta = 0.272$, $p = 0.117$) on LB are not statistically significant, suggesting that these factors may not be primary determinants of consumer purchase decisions in this context.

Multi-Group Analysis (MGA) -Moderating Effects of Religion and Health Consciousness

Table 3 presents the results of the multi-group analysis (MGA) using chi-square difference tests to examine the moderating effects of religion and health consciousness on the relationships between knowledge score (KLS), the 4Ps (product, price, place, promotion), and likely behavior (LB). The chi-square comparison assesses whether significant differences exist between groups in their structural paths, thereby identifying the extent to which these moderators influence consumer decision-making in plant-based food consumption.

The findings indicate that knowledge score (KLS) does not significantly differ across groups in its effect on product (PROD: $\chi^2 = 2.14$, $p = 0.144$), price (PRI: $\chi^2 = 0.00$, $p = 0.999$), place (PLA: $\chi^2 = 0.291$, $p = 0.590$), and promotion (PROM: $\chi^2 = 1.15$, $p = 0.284$). These results suggest that neither religion nor health consciousness significantly moderate the impact of knowledge on consumer perceptions of the marketing mix elements, implying that knowledge alone is a stable determinant of product, price, place, and promotional awareness regardless of religious or health-conscious motivations.

Table 3 Results of Multi-group Analysis (MGA) based on 4Ps influenced Religion by Knowledge Score and Likely Behavior (LB)

Path				Estimate	S.E.	C.R.	P-value	Result
H1a	KnowledgeScore	→	Prod	0.087	0.018	4.886	***	Supported
H2a	KnowledgeScore	→	Price	0.056	0.016	3.425	***	Supported
H3a	KnowledgeScore	→	Place	0.029	0.012	2.511	0.012	Supported
H4a	KnowledgeScore	→	Promo	0.027	0.01	2.605	0.009	Supported
H5a	Product	→	LB	0.116	0.114	1.016	0.31	Not supported
H6a	Price	→	LB	0.274	0.16	1.713	0.087	Not supported
H7a	Place	→	LB	0.454	0.38	1.193	0.233	Not supported
H8a	Promotion	→	LB	0.317	0.337	0.941	0.347	Not supported

Notes: ***, * Significant at the .001 and .05 levels.

However, when examining the influence of the 4Ps on likely behavior (LB), the results reveal that price (PRI → LB: $\chi^2 = 3.967$, $p = 0.046$) exhibits a significant moderating effect. This suggests that religion and health consciousness moderate the relationship between price and likely behavior, so that consumer responses to pricing strategies vary based on whether they are motivated by religious or health concerns. In contrast, product (PROD → LB: $\chi^2 = 0.58$, $p = 0.446$), place (PLA → LB: $\chi^2 = 0.869$, $p = 0.351$), and promotion (PROM → LB: $\chi^2 = 0.029$, $p = 0.866$) do not show significant moderation effects, which indicates that these factors influence likely behavior consistently across groups.

The model fit indices, including the Normed Fit Index (NFI), Incremental Fit Index (IFI), Relative Fit Index (RFI), and Tucker-Lewis Index (TLI), remain stable across groups, further supporting the robustness of the findings. The results imply that price sensitivity is influenced by religious and health-conscious motivations, highlighting the importance of tailoring pricing strategies to align with ethical, spiritual, and wellness-driven consumer preferences.

Conclusion and Discussion

Our findings suggest that health-conscious individuals consider price a key factor in their decision-making process, whereas religious consumers remain relatively insensitive to pricing when purchasing plant-based food.

These results align with the descriptive analysis, which shows that religious consumers generally possess a higher level of knowledge about plant-based diets compared to their health-conscious counterparts (Lea et al., 2006). The difference in price sensitivity can be explained by the fundamental motivations of each group: health-conscious consumers make rational economic decisions, whereas religious consumers base their dietary choices on faith-driven principles rather than financial considerations (Schiffman & Kanuk, 2004; Solomon, 2018).

5.1 Behavioral Insights and Theoretical Explanation

5.1.1 Religious Consumers

The purchasing behavior of religious consumers is primarily shaped by ethical, spiritual, and cultural values, making them largely unaffected by price fluctuations (Jilpattanakul, 2021). Their commitment to plant-based diets is deeply rooted in religious traditions, such as Buddhist and Jainist dietary principles, which emphasize non-violence and mindful eating (Assael, 2001). Additionally, their higher level of knowledge and familiarity with plant-based food suggests that they do not rely on price as a determining factor in their consumption decisions, as they are already accustomed to these dietary choices (Lang, 2020).

5.1.2 Health-Conscious Consumers

Unlike religious consumers, health-conscious individuals adopt a pragmatic approach when selecting plant-based food products, carefully weighing cost-effectiveness before making a purchase (Hanna & Wozniak, 2001; Hoek et al., 2011). Their price sensitivity stems from comparisons between plant-based and conventional food products, leading them to assess whether the perceived health benefits justify the higher costs often associated with plant-based alternatives (Elzerman et al., 2013). This economic rationality influences their willingness to adopt plant-based diets, making affordability a critical factor in driving purchase behavior (Mothersbaugh et al., 2020).

5.2 Health Consciousness and Religious Beliefs as Primary Motivators

The findings reaffirm that health consciousness and religious beliefs are the two dominant factors influencing consumer awareness and adoption of plant-based diets (Bornkessel et al., 2014; Talwar et al., 2021). Health-conscious consumers prioritize personal well-being, recognizing the nutritional advantages of plant-based diets in preventing chronic diseases and promoting overall health (Chen, 2009). Meanwhile, religious consumers adhere to ethical and spiritual dietary practices, following plant-based diets as an expression of faith and cultural values (Jilpattanakul, 2021).

5.3 Limited Environmental Concern

Despite the growing global emphasis on sustainability, environmental considerations seem to play a negligible role in shaping the attitudes of Thai consumers toward plant-based food choices. Only 2% of respondents cited environmental sustainability as their primary motivation for consuming plant-based food (Siegrist & Hartmann, 2019). The widely recognized ecological benefits of plant-based diets—such as reducing carbon footprints, lowering water consumption, and mitigating deforestation—have yet to significantly influence consumer behavior in Chiang Mai

(Nantramas et al., 2020).

5.4 Implications for Consumer Awareness and Marketing Strategies

Given that health consciousness and religious beliefs serve as the primary drivers of plant-based food consumption, businesses and policymakers should prioritize targeted marketing and educational initiatives for these two key consumer segments (Kotler & Keller, 2012). Marketing strategies should emphasize nutritional benefits and affordability for health-conscious consumers, while promoting ethical, spiritual, and cultural aspects for religiously motivated consumers (Romero & Ladwein, 2023).

At the same time, efforts to raise awareness of the environmental benefits of plant-based diets should be reinforced through eco-labeling, sustainability campaigns, and strategic collaborations with environmental organizations (Lang, 2020). By integrating sustainability messaging into broader marketing narratives, businesses can gradually increase consumer concern for ecological impact, potentially expanding the reach of plant-based food consumption beyond its current health and religious appeal (Smith & Swinyard, 1983).

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Analyzing the Relationship Between Policy Awareness, Fulfillment of Expectations, Perceived Value and Customer Satisfaction in the Cambodia's Health Insurance Industry

MOROKATH LAO and Sunida Piriyapada

Abstract

Purpose: The main objective of the study is to analyze the relationship between Policy Awareness, Fulfillment of Expectations, Perceived Value and Customer Satisfaction in the Cambodia's Health Insurance Industry.

Design/Methodology/Approach: Data collection was conducted using the purposive sampling method. An online survey was contributed through social medias with people, who are familiar with health insurance policy or the health insured in Cambodia's insurance market.

Finding: The result demonstrated that fulfillment of expectation (FE) had the strongest effect on customers satisfaction (CS) followed by perceived value (PV) and policy awareness (PA). In addition, the author also found a significant correlation between customer satisfaction (CS) and complaint handling (CH) and trust (T).

Originality/Value: The finding of this study developed a hypothesized model and highlighted significant relationships between Policy Awareness, Fulfillment of Expectations, Perceived Value and Customer Satisfaction of health insurance product in Cambodia. Moreover, it provides useful implications for Government and Regulatory bodies, healthcare providers, insurance company and policy holders to not only foster health insurance product awareness, but also segment healthcare market, provide and design health insurance products according to the social needs.

Keywords: 1. Health Insurance 2. Policy Awareness 3. Fulfillment of Expectation 4. Perceived Value 5. Customer Satisfaction 6. Complaint Handling, Trust.

1. INTRODUCTION

1.1 Background of Study

Insurance functions as an essential tool that allows individuals to transfer risks to insurance providers, thereby alleviating financial strains in the event of unexpected incidents. Policyholders are compensated when designated risks, as outlined in the insurance agreements, occur. In Cambodia, the insurance industry is a key contributor to economic growth and the reinforcement of the social security system. The sector has seen notable growth, with 40 insurance companies operating in three segments: general insurance, life insurance, microinsurance.

In 2020, Cambodia's insurance industry demonstrated significant progress, although its market penetration remained below 1%, indicating substantial potential for future expansion (Insurance Association of Cambodia, 2021). The sector has undergone significant development in recent years, attracting the attention of both international and local competitors.

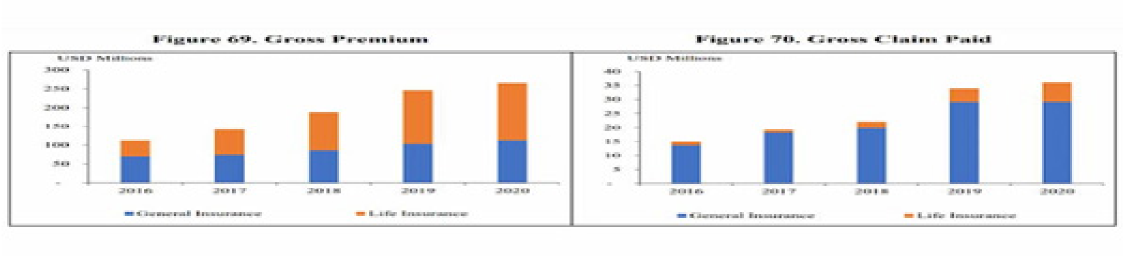


Figure 1 Gross premium and Gross Claim paid

Image Credit: Insurance Association Cambodia

A report by the Insurance Association of Cambodia in early 2021 indicated that total insurance premiums for 2020 grew by 7.3% compared to the previous year, reaching $271.5 million (Insurance Association of Cambodia, 2021). Life insurance contributed 56.1% of the total premiums, general insurance made up 41.9%, and microinsurance accounted for only 2%. In 2020, insurance companies paid out a total of $37 million in claims to their customers (Figure 1).

Despite the sector's growth, Cambodia's insurance penetration rate remains low at 1.1% of GDP in 2022, falling behind neighboring countries such as Vietnam and Thailand as of 2.8% and 5%, respectively (IRC, 2022). This disparity indicates a research gap in understanding the factors contributing to the low insurance uptake rates, especially in the context of health insurance. As the country develops, the demand for essential services and maintaining good health to ensure financial stability is increasing. Therefore, the need to examine the factors influencing customer satisfaction with health insurance in Cambodia is emphasized by the gap between insurance sales figures and the actual demand for health coverage. Despite the clear necessity for health insurance, it represented only 23% of total insurance premiums in 2022. Moreover, the substantial number of Complaint lodged by insured individuals—totaling 1,044 by the second semester of 2023—signals an urgent need to address issues of customer dissatisfaction within the industry.

Understanding the factors contributing to low health insurance adoption rates and dissatisfaction among policyholders is crucial for several reasons. First, it can guide efforts to improve public awareness and perceptions of health insurance. Many Cambodians may not fully grasp the benefits of health insurance or may view it as too costly or unnecessary. By identifying and addressing these misconceptions, there is an opportunity to increase health insurance uptake, thereby providing individuals and families with greater financial security.

Secondly, assessing customer satisfaction with health insurance can provide valuable insights into the quality of services offered by insurers. Complaint from policyholders may pinpoint areas needing enhancement, such as claims processing efficiency, customer service standards, or policy transparency. By resolving these issues, insurers can cultivate greater trust and confidence among customers, ultimately fostering a more supportive environment for increased insurance adoption.

The importance of examining the factors influencing customer satisfaction with health insurance extends beyond immediate benefits to individuals and families. A robust and efficient health insurance sector is essential for the broader stability and growth of the economy. It can attract foreign investment, enhance productivity, and create employment opportunities within the insurance industry and related sectors. Furthermore, a well-established health insurance system can strengthen social cohesion and reduce inequalities by ensuring equitable access to healthcare services for all segments of the population.

1.2 Research Objectives and Research Questions

1.2.1 Research Objectives

1. To evaluate the impact of policy awareness, fulfillment of expectations, and perceived value on customer satisfaction in Cambodia's health insurance industry.

2. To examine how customer satisfaction influences complaint handling effectiveness and customer trust within Cambodia’s health insurance industry.

3. To develop actionable recommendations based on the findings, aimed at improving customer satisfaction and trust in Cambodia’s health insurance sector.

1.2.2 Research Questions

1. How do policy awareness, fulfillment of expectations, and perceived value affect customer satisfaction among health insurance holders in Cambodia?

2. How does customer satisfaction influence complaint handling effectiveness and trust among health insurance holders in Cambodia?

3. What key factors identified in this study can inform a comprehensive approach to addressing practical issues in Cambodia's health insurance sector?

1.3 Benefit of Research

The goal of this study is to examine the factors influencing customer satisfaction with health insurance products in Cambodia, aiming to alleviate financial burdens on individuals. Furthermore, this study will support the efforts of the Insurance Regulator of Cambodia (IRC) in increasing awareness of insurance among Cambodians and achieving an insurance penetration rate of 5.5% of GDP by 2030.

Stakeholders in this research include various entities with vested interests in the health-care and insurance sectors:

Government and Regulatory Bodies: These entities are instrumental in shaping health-care policies and regulations. They are pivotal in ensuring that health insurance policies meet the needs of individuals and promote public health.

Healthcare Providers: Hospitals, clinics, and healthcare professionals rely on health insurance coverage to provide essential services to patients. They are directly impacted by insurance reimbursement policies.

Insurance Companies: These stakeholders are responsible for designing, selling, and administering health insurance policies. They have a vested interest in understanding customer satisfaction factors to enhance their offerings and improve market penetration.

Policyholders: Individuals and families purchasing health insurance policies, rely on insurance coverage to manage healthcare expenses and protect their financial well-being.

By doing so, the government can not only foster economic development but also alleviate poverty and elevate the country's international standing. Additionally, the results of this study will serve as foundational knowledge for future researchers interested in exploring the role of digital marketing in promoting customer satisfaction with health insurance in Cambodia.

1.4 Definition of terms

Health Insurance

Health insurance is an insurance policy that covers the cost of treatment for injuries, illnesses or other expenses, such as the cost of long-term care for an insured person who is physically injured or affected by an illness (IRC, 2023). (Wagstaff, 2007) stated that to be able to protect themselves monetarily through insurance, people who prioritize their health can also lead very healthy lives. Thus, this study will center its investigation on health insurance coverage.

2. LITERATURE REVIEW

In this chapter, a comprehensive review of related articles and studies pertaining to factors influencing customer satisfaction in the realm of health insurance is presented. The literature review is structured into six key components, each shedding light on distinct facets of the subject matter. The introductory section sets the stage for this exploration by providing a holistic overview of the significance and relevance of understanding these factors.

2.1 Variables used in the study

Policy Awareness

Insurance policy is a legally binding document issued by an insurance company that sets out the essential contents and detailed conditions agreed between the insurance company and the insured person in the insurance contract. The insurance policy is issued together with a certificate of insurance or another relevant document (IRC, 2023). Prior research has underscored the pivotal role of policy awareness in shaping customer perceptions, behaviors, and ultimately, satisfaction with their insurance plans (Smith et al., 2018; Johnson & Nguyen, 2019). By elucidating the relationship between policy awareness and customer satisfaction, scholars have contributed valuable insights into strategies for enhancing consumer empowerment and engagement in health-care decision-making.

Fulfillment of Expectation

Consumer expectations are internal benchmarks that consumers employ to judge the caliber of a service encountered. Expectations can be defined as "a prediction of future events based on past performance, present conditions, or other sources of information (Kamaruddin et al., 2012). Fulfillment of expectation represents another crucial dimension in the assessment of customer satisfaction with health insurance. When these expectations are met or exceeded, individuals are more likely to perceive their insurance plans positively and report higher levels of satisfaction (Brown & Lee, 2020; Chen et al., 2021).

Perceived Value

Perceived value is the consumer's overall appreciation of the consumption of products or services, as determined by the consumer's perception of the products or services received. It is also defined as value, like quality, is a factor that contributes to customer happiness which was argued by (Rust and Oliver, 1993). Perceived value emerges as a fundamental determinant of customer satisfaction in the health insurance context. Customers evaluate the benefits received from their insurance plans relative to the costs incurred, weighing factors such as premiums, de-ductibles, copayments, and coverage limitations (Wang & Kim, 2022). Research suggests that cus-tomers who perceive their insurance plans as offering favorable value propositions are more likely to express satisfaction with their overall insurance experience and remain loyal to their providers.

Complaint Handling

A consumer may experience negative emotions like rage and despair if they believe that a difficult and unsatisfactory experience at the store would negatively impact their own wellbeing. When a consumer is unhappy, they will first file a complaint about the service provider, so that they will feel at ease (Oliver 1997). Complaint handling represents a critical aspect of customer satisfaction management in health insurance. When customers encounter challenges or grievances related to their coverage, prompt and effective resolution of Complaint is essential for maintaining trust and satisfaction (Johnson & Nguyen, 2019; Chen et al., 2021). Studies have highlighted the importance of transparent communication, responsive customer service, and fair claims processing in mitigating dissatisfaction and fostering positive customer experiences.

Customer Satisfaction

Customer satisfaction mostly defined as a state to match between products performance and customer's expectation (Kotler & Keller, 2012). Customer satisfaction serves as the ultimate measure of success for health insurance providers. It encompasses customers' overall evaluations of their insurance plans, including satisfaction with coverage, service quality, affordability, and perceived value (Smith et al., 2018; Brown & Lee, 2020). By understanding the determinants of customer satisfaction, insurers can identify opportunities for improvement and tailor their offerings to better meet the evolving needs and preferences of their customers.

Trust

Trust is a consumer's expectation that a service provider can be trusted or accepted to fulfill its promises (Chen & Dhillon, 2003). Trust builds long-term commercial partnerships and that it is a highly valuable instrument for improving corporate connections (Alrubaiee 2012). Trust forms the bedrock of the insurer-customer relationship and significantly influences customer satisfaction in health insurance (Wang & Kim, 2022). Research has demonstrated that high levels of trust are associated with greater satisfaction, loyalty, and positive word-of-mouth referrals, underscoring the importance of fostering trust-based relationships in the insurance industry

2.2 Previous Study & Related Literature Review

2.2.1 Policy awareness and customers satisfaction

Several studies have highlighted the crucial role of policy awareness in shaping client satisfaction within the domain of health insurance. Shafiu Mohammed, Sambo, and Dong (2011) investigated the factors contributing to satisfaction with health insurance in Nigeria, emphasizing the significance of awareness in enhancing client satisfaction. Their findings indicated that heightened policy awareness positively influenced client satisfaction by enabling individuals to better understand their coverage and benefits.

Smith et al. (2018) found that policyholders who comprehensively understood the terms and conditions of their health insurance were more satisfied with their coverage. This suggests that clarity and understanding of policy details play a crucial role in fostering satisfaction and confidence in utilizing insurance benefits effectively.

Lastly, Chen et al. (2021) further supported these findings by demonstrating that clients who received comprehensive information about their health insurance policies reported higher satisfaction levels with the adequacy of coverage for their healthcare needs. This underscores the importance of informed decision-making in ensuring satisfaction with insurance plans.

2.2.2 Fulfillment of Expectation and Customers satisfaction

In digital channels, Kujala et al. (2017) assert that customers' expectations regarding technology's capabilities shape their experience, influencing satisfaction levels (Bilgihan et al., 2015). Moreover, Martinus Tukiran (2021) emphasizes the positive impact of customer expectations on satisfaction, particularly concerning perceived quality and value.

Oliver (1980) highlights that meeting or surpassing consumers' expectations increases their likelihood of satisfaction with the product or service. Similarly, Anderson and Sullivan (1993) stress the importance of meeting customer expectations to enhance satisfaction levels, particularly in service quality contexts.

In the insurance sector, Han et al. (2016) found that policyholders' satisfaction hinges significantly on whether the insurance company meets their expectations regarding coverage, claims processing, and customer service. Mittal et al. (1998) further elaborate on the "expectancy-disconfirmation theory," suggesting that satisfaction is evaluated based on the disconfirmation between prior expectations and actual experiences. Thus, fulfilling promises and meeting or exceeding policyholders' expectations regarding coverage, service quality, and claims processing can enhance overall customer satisfaction.

2.2.3 Perceived Value and Customers Satisfaction

Several studies have emphasized the significance of perceived value in shaping customer satisfaction across various industries. Martinus Tukiran (2021) posited that attentive listening, efforts to meet and exceed customer expectations, and delivering enhanced value contribute to heightened customer satisfaction. Furthermore, Liu Li's study in 2022 underscored the pivotal role of perceived value in influencing patient satisfaction within health tourism contexts, particularly emphasizing its impact on the satisfaction of Chinese exchange students in Malaysia.

In the hospitality industry, Sweeney and Soutar (2001) found that perceived value significantly influenced guest satisfaction with hotel services. Likewise, Varki and Wong's study (2003) in the retail sector demonstrated a positive correlation between customers' perceptions of value and satisfaction with their shopping experiences.

2.2.4 Customers satisfaction and Complaint handling

Numerous studies underscore the pivotal role of effectively managing and resolving customer Complaint in ensuring client satisfaction across diverse industries. Supriaddin et al. (2015) highlighted the essentiality of addressing Complaint correctly, noting its significance in enhancing satisfaction levels and positively altering customer perceptions. They observed that customers previously dissatisfied with a company could transition to satisfaction upon developing trust in the company's capacity to address and resolve issues competently.

Similarly, Rohaizah Abd. Latif's investigation (2023) into life insurance services in Klang Valley, Malaysia, illuminated the manifold influences of service quality, perceived value, corporate image, complaint behavior, and agent role on customer satisfaction. This study underscored the complex interplay of various factors contributing to satisfaction within the life insurance sector.

In the realm of insurance, customer Complaint wield significant influence over overall satisfaction with insurance providers. Liu and Zhao (2020) revealed that customers encountering issues with insurance policies or claims processing were prone to expressing dissatisfaction with the company. Additionally, Zhou et al. (2018) emphasized the indispensable nature of prompt and efficient complaint resolution in ameliorating adverse impacts on customer satisfaction and retention within the insurance sector.

2.2.5 Customers satisfaction and Trust

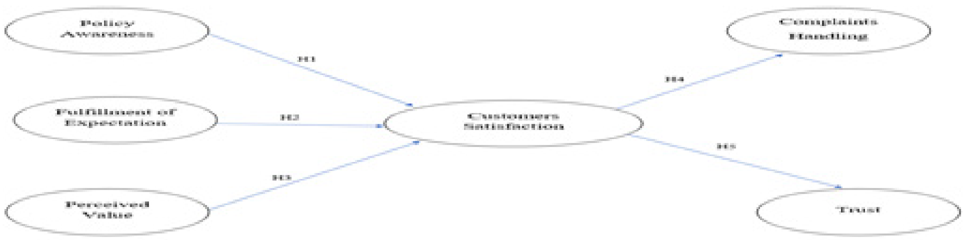
(Tang, 2011) examined the impact of patient trust in medical services and attitude towards health policy on overall satisfaction and sub-satisfaction in the medical experience in China, indicating a significant influence of patient trust on both overall satisfaction and sub-satisfaction.

Moreover, Wendel (2011) explored how customer trust in a company is influenced by satisfaction, particularly in the Dutch health insurance market.

In the insurance industry, Bartikowski and Llosa (2015) highlighted the pivotal role of trust in shaping customer satisfaction and loyalty, indicating that policyholders who trust their insurance providers are more likely to be satisfied with their overall experience. Furthermore, Chakrabarty and Yildirim (2018) demonstrated that trust was a critical determinant of customer loyalty and positive word-of-mouth in the insurance sector.

2.3 Conceptual Framework

Based on the previous researches, the relationship between the variables of policy awareness, fulfillment of expectation, perceived value, complaint handling, trust with customers satisfaction can be formulated within the conceptual framework of the research as shown in figure below.



Adopted from a study of "Assessment of the satisfaction with public health insurance programs by patients with chronic diseases in China: a structural equation modeling approach" (Geng et al. 2021)

2.4 Research Hypotheses

This research had five hypothesis that derived from literature review and conceptual framework.

H1: Policy awareness affects customer satisfaction.

H2: Fulfillment of expectation affects customer satisfaction.

H3: Perceived Value affects customer satisfaction.

H4: Customers satisfaction affects Complaint handling.

H5: Customers satisfaction affects trust.

3. METHODS

In this chapter, the researcher delineated the various research methodologies employed. The initial section outlined the methods utilized to gather data from respondents. Subsequently, the second section elaborated on respondents and sampling procedures, comprising four sub-sections: population and sample, sampling size, sampling techniques, and data entry. Moving forward, the third section expounded on the research instruments and questionnaire devised for this study. The subsequent sections, spanning from the fourth to the sixth, delved into discussions pertaining to pretests, data collection processes, and finally, the statistical treatment of data.

3.1 Population, Sampling Size and sampling techniques

This study aims to gather data from individuals familiar with health insurance products, encompassing both genders and residing in urban or rural regions of Cambodia. The target population comprised Cambodian insurance holders, specifically those who have purchased health insurance and fall within the age range of 18 to 60 years old.

To calculate a sample size, Cochran's formula was a method used to determine the sample size needed for estimating proportions within a population with a specified level of confidence and precision. The formula was typically used when the population size was large or unknown. According to Cochran (1977) was expressed as:

$$n = \frac{Z^2 \times p \times (1-p)}{E^2}$$

Where:

n = desired sample size

Z = Z-score corresponding to the desired level of confidence (e.g., 1.96 for a 95% confidence level)

p = estimated proportion of the population with a particular characteristic or outcome (if unknown, p can be set to 0.5 for maximum variability, resulting in the largest sample size)

E = desired margin of error or precision (the maximum allowable difference between the sample estimate and the true population parameter)

To use Cochran’s formula when the population size is unknown. The formula becomes:

$$n = \frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2}$$

$$n = \frac{3.8416 \times 0.5 \times 0.5}{0.0025}$$

$$n = \frac{0.9604}{0.0025}$$

$$n \approx 384.16$$

A sample size of roughly 385 Cambodian consumers was required to estimate the proportion of individuals obtaining health insurance among this demographic, with a 95% confidence level and a margin of error of 5%, assuming maximum variability. In anticipation of potential errors in response feedback, a sample of 400 health-insured individuals would be required to participate in questionnaire surveys, facilitating data collection for the research. In this study, purposive sampling was employed to select participants who had firsthand experience with health insurance products in Cambodia. Participants were chosen based on their status as health insurance policyholders, ensuring that the sample group comprised individuals who have actively engaged with health insurance services within the Cambodian market. This approach allows for the targeted selection of participants who possessed the specific knowledge and experiences relevant to the research objectives, facilitating a focused exploration of factors influencing customer satisfaction with health insurance (Trochim, W. M. K., 2006).

3.2 Research instrument

This study was designed to thoroughly investigate the factors contributing to customer satisfaction with health insurance in Cambodia. Utilizing a meticulously crafted survey questionnaire comprising 40 questions—ranging from open-ended and multiple-choice to Likert scale inquiries—the researcher aimed to explore the connections between various variables related to health insurance satisfaction in depth.

Utilizing a descriptive research methodology, this study aimed to explore the experiences and perceptions of health insurance customers in Cambodia who reported satisfaction with their policies. The researcher employed a survey as the primary tool for data collection, intending to capture both verbal and nonverbal responses regarding insurance awareness, opinions, experiences, and satisfaction levels.

The questionnaire was structured into four distinct sections, designed to facilitate a comprehensive examination of the topic. The first section acted as a screening tool, ensuring that subsequent sections targeted individuals with relevant experiences and insights about health insurance.

The second section focused on collecting basic demographic information from respondents, including variables such as age, gender, education level, occupation, income, and geographic location. This information provided essential context for the subsequent analysis of the collected data.

The core component of the questionnaire lay in the third section, where the researcher delved deeply into eliciting respondents' thoughts and perceptions as health insurance policyholders. Constructs identified by various authors were employed and assessed using a 5-point Likert scale. These constructs included, but were not limited to, policy awareness, fulfillment of expectations, perceived value, complaint handling, and trust. By systematically evaluating these factors, the study aimed to gain insights into the drivers of customer satisfaction within the Cambodian health insurance market.

Furthermore, the questionnaire incorporated a final section dedicated to capturing qualitative feedback, suggestions, and ideas from participants. This qualitative data served to complement the quantitative analysis, providing rich insights into the nuanced aspects of health insurance satisfaction.

In the commitment to inclusivity and accessibility, each questionnaire item was meticulously prepared in both Khmer and English languages. This approach ensured that respondents could comfortably communicate in their preferred language, thereby enhancing sample participation and representativeness. The questionnaire was distributed through online channels, ensuring interaction between the researcher and respondents. This approach offered numerous advantages, including feedback and rapport-building, all of which enhanced both response rates and data quality.

Summary of the measurement of constructs

Variable	Items	Sources
Policy Awareness	- I understand the benefit of health insurance coverage. - Insurance is the ideal risk management instrument when the probability of loss is low and the severity of loss is high.	(Abdullah Al Mamun, 2021)
Fulfillment of expectation	- My experience as health insurance policy holder was better than what I expected. - Overall, most of all my expectations with health insurance was confirmed.	(Bhattacherjee, 2001)
Perceived Valued	- Insurance reduces losses hidden in life's uncertainty. - I feel secured with health insurance policy in hand.	(Weedige Sanjeewa, 2019)
Customers Satisfaction	- I am satisfied with my decision as being a health insurance policy holder. - I believe I did the right thing when I decided to buy health insurance.	(Ko & Pastore, 2007)
Complaint handling	- Insurance claim process is clear and undeceivable. - I am happy with the process of claims settling.	(Nicholas Oppong Mensah, 2023)
Trust	- I think insurance is honest and trustworthy. - An insurer cares about the insured.	(Al-Maroof et al., 2021)

3.3 Data Analysis

The data analysis process involved three main steps: first, descriptive statistics (e.g., frequency, percentage, mean, and median) were used to describe the respondents' profile; second, reliability analysis assessed the internal consistency of each variable; and finally, a correlation matrix and multiple regression analysis were conducted to examine relationships among variables and test the hypotheses, providing a robust approach for this study.

4. RESULTS

This chapter focuses on the findings and results from data analysis as follows: demographic characteristics, reliability analysis, descriptive statistics and correlation analysis, and multiple regression analysis.

4.1 Socio-demographic Characteristics

A total of 400 respondents participated in the survey, and their responses were fully utilized for the analysis. The questionnaire included sections designed to gather demographic information, such as residential area, gender, age group, employment status, educational background, monthly income, experience as a health insurance policyholder, and the duration of holding a health policy in Cambodia.

The info-graphic explanation and the demographic interpretation are provided as below.

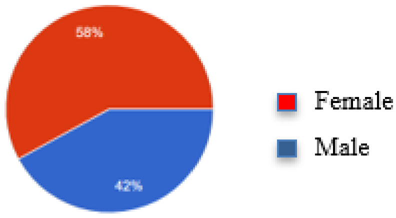


Figure 4.1a Gender of respondents

Figure 4.1a illustrates the distribution of respondents' genders regarding their views on health insurance in Cambodia, revealing a higher representation of females compared to males (58% vs. 42%). This suggests that females may be more interested in and likely to hold health insurance policies than their male counterparts in Cambodia.

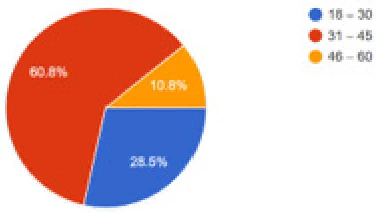


Figure 4.1b Age Group

Figure 4.1b presents the distribution of Cambodian respondents categorized by age ranges, expressed in percentages. It clearly shows that the majority of respondents fall within the age group of 31-45 years, accounting for 60.8%. This is significantly higher than the 28.5% represented by the 18-30 age group and the 10.8% from the 46-60 age group.

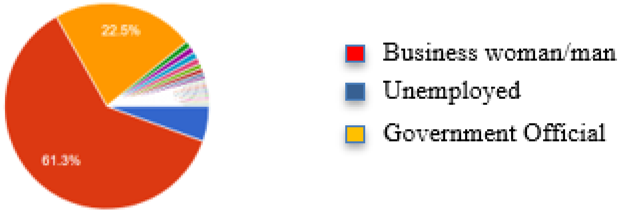


Figure 4.1c Employment Status

Figure 4.1c illustrates the employment status of respondents who participated in the survey, presented in percentages. It indicates that businesswomen and businessmen constitute the highest percentage, with 61.3% actively engaging with health insurance policies in Cambodia, surpassing other employment statuses.

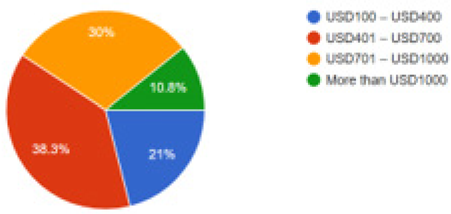


Figure 4.1d Monthly income

The pie chart in Figure 4.1d highlights that the majority of respondents earn a monthly income between USD 401 and USD 700, accounting for 38.3% of the total responses. This income range is significantly higher than that of the other categories represented in the survey.

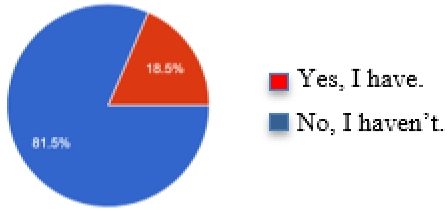


Figure 4.1e Health Insurance policy holding

Figure 4.1e displays the percentage of respondents who hold health insurance policies, with 81.5% indicating that they do possess such coverage, compared to just 18.5% of respondents who do not have health insurance policies.

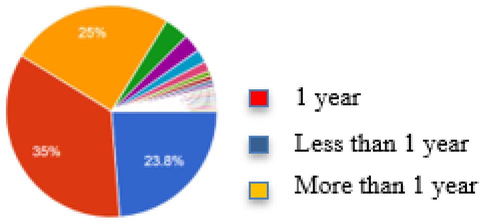


Figure 4.1f Length of health insurance policy holding

Figure 4.1f reveals the duration of health insurance policy holding among respondents. It indicates that policyholders who have held a health insurance policy for less than one year comprise a smaller percentage compared to those who have maintained their coverage for one year, with percentages of 23.8%, 25%, and 35% for the respective groups. The other colors in the chart represent respondents who do not currently hold any health insurance policy or have shown no interest in purchasing one yet.

4.2 Reliability Analysis

4.2.1: Reliability Statistics

The reliability of the constructs was assessed using Cronbach's alpha, with all values exceeding the commonly accepted threshold of 0.80, indicating strong internal consistency across the variables in both pilot and valid tests. Policy awareness (PA) exhibited the highest reliability with a Cronbach's alpha of 0.859, followed by perceived value (PV) at 0.841, Complaint Handling (CH) at 0.839, trust (T) at 0.837, customer satisfaction (CS) at 0.836, and Fulfillment of expectation (FE) at 0.831. These results suggest that the items used to measure each construct were highly consistent, confirming the reliability of the scales employed in the study. As shown in Table 4.2.1, the Cronbach's alpha values for the main study of respondents in Cambodia on health insurance policy also demonstrated strong reliability. The scale for all six items achieved an alpha of 0.864, which exceeds the preferable threshold of 0.70, with the acceptable lower limit for reliability being 0.60 (Cronbach, 1951). Therefore, all scale items in this study are deemed valid and reliable for analysis.

Table 4.2 Reliability Statistics

Items	Pilot test	Valid test
PA	.958	.859
FE	.934	.831
PV	.939	.841
CS	.937	.836
CH	.939	.839
T	.949	.837

4.2.2: Pearson Correlation Matrix

In the context of multicollinearity, the correlation matrix is a valuable tool for identifying potential issues between predictor variables. Multicollinearity arises when two or more predictor variables in a regression model are highly correlated, which can distort the model's results and make it challenging to assess the individual effect of each predictor. A correlation coefficient above 0.8 or 0.9 between two variables typically indicates a potential multicollinearity problem, suggesting that these variables are highly related and may need to be addressed. However, in this model, no significant multicollinearity issues were found, as the correlation coefficients between predictor variables did not exceed the threshold for concern.

Table 4.2.2 Pearson Correlation Matrix

		PA	FE	PV	CS	CH	T
PA	Pearson Correlation	1	.476**	.448**	.446**	.372**	.452**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	400	400	400	400	400	400
FE	Pearson Correlation	.476**	1	.604**	.579**	.557**	.520**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	400	400	400	400	400	400
PV	Pearson Correlation	.448**	.604**	1	.497**	.527**	.492**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	400	400	400	400	400	400
CS	Pearson Correlation	.446**	.579**	.497**	1	.552**	.586**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	400	400	400	400	400	400
CH	Pearson Correlation	.372**	.557**	.527**	.552**	1	.591**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	400	400	400	400	400	400

		PA	FE	PV	CS	CH	T
T	Pearson Correlation	.452**	.520**	.492**	.586**	.591**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	400	400	400	400	400	400

**. Correlation is significant at the 0.01 level (2-tailed).

4.3 Multiple Regression Analysis result

4.3.1 Multiple Regression Analysis: customer satisfaction (CS) is the dependent variable

Construct	Unstandardized Coefficients	Standardized Coefficients		t	Sig.
	B	Std. Error	Beta		
(Constant)	.704	.222		3.167**	.002
PA	.222	.056	.182	3.985***	.000
FE	.412	.056	.380	7.417***	.000
PV	.192	.052	.186	3.699***	.000

Notes: ***p < 0.001, **p < 0.01, R Square=0.394, Adjusted R Square =.390

The multiple regression analysis in Table 4.3.1 offers valuable insights into how different predictors—Policy Awareness (PA), Fulfillment of Expectations (FE), and Perceived Value (PV)—each contribute to the outcome variable, customer satisfaction (CS), which serves as the dependent variable in this model. R-Square = 0.394 suggests that approximately 39.4% of the variance in customer satisfaction can be explained by the model, indicating a moderate explanatory power. While Adjusted R-Square equals 0.390 slightly adjusts for the number of predictors in the model, reinforcing the robustness of the findings.

Among the predictors, Fulfillment of Expectation (FE) exhibits the strongest positive effect on CS (B = 0.412, Beta = 0.380, p < 0.001), suggesting that meeting or exceeding customer expectations significantly enhances satisfaction. When customers' expectations are met or exceeded, they are more likely to feel positive about their experience, leading to higher satisfaction levels.

Policy Awareness (PA) (B = 0.222, Beta = 0.182, p < 0.001) indicates that as customers become more aware of a company's policies, there is a corresponding positive effect on their overall satisfaction. When customers are aware of a company's policies, it reduces ambiguity and uncertainty, enhancing their trust and comfort with the brand. This transparency likely leads to higher satisfaction because customers feel more confident in their interactions with the company, knowing what to expect from the business.

Perceived Value (PV) (B = 0.192, Beta = 0.186, p < 0.001) also have significant positive influences on CS, implying that higher perceptions of value, whether in terms of product quality, price, or overall worth, contribute to an increase in customer satisfaction by 0.192 units per one-unit increase in PV. When customers perceive greater value, whether through high quality, competitive pricing, or overall satisfaction with the product's utility, they are more likely to feel content and satisfied with their purchase. This positive perception enhances their overall experience and leads to greater customer satisfaction. Although their effects are comparatively smaller than that of FE. These results suggest that improving fulfillment of expectations, raising awareness of policies, and delivering perceived value are critical factors in enhancing customer satisfaction (CS), with fulfillment of expectation (FE) being the most influential.

4.3.2 Multiple Regression Analysis: Complaint Handling is the dependent variable

Construct	Unstandardized Coefficients	Standardized Coefficients		t	Sig.
	B	Std. Error	Beta		
(Constant)	1.768	.171		10.320***	.000
CS	.553	.042	.552	13.222***	.000

Notes: ***p < 0.001, R Square=.305, Adjusted R Square =.303

The multiple regression analysis in Table 4.3.2 explores the relationship between Customer Satisfaction (CS) as an independent variable and Complaint Handling (CH) as the dependent variable. R-Square = 0.305 indicates that approximately 30.5% of the variance in Complaint Handling (CH) can be explained by Customer Satisfaction (CS). This suggests a moderate level of explanatory power, implying that while Customer Satisfaction is an important factor influencing complaint handling, other variables not included in the model also play a role in shaping complaint-handling outcomes. Adjusted R-Square = 0.303 is slightly lower, adjusting for the number of predictors in the model. Customer Satisfaction (CS) has a strong positive effect on Complaint Handling (CH), (B = 0.553, t = 13.222, p < 0.001) meaning that when customers are more satisfied, companies are more likely to handle Complaint effectively. This could be due to satisfied customers being more likely to report issues, or companies with higher levels of satisfaction may be better at responding to Complaint. Additionally, companies may view high satisfaction levels as an indicator of success and may prioritize improving complaint handling in response to maintaining or enhancing their positive reputation.

4.3.3 Multiple Regression Analysis: Trust is the dependent variable

The multiple regression analysis in Table 4.4 examines the relationship between Customer Satisfaction (CS) and Trust (T), with Trust as the dependent variable. R-Square = 0.343 means that approximately 34.3% of the variance in Trust (T) can be explained by Customer Satisfaction (CS). This suggests that while CS is an important predictor of trust, other factors not included in this model likely also play a role in determining trust. Adjusted R-Square = 0.341 slightly adjusts the R-Square for the number of predictors in the model. This minor adjustment reaffirms that CS is a key variable in explaining Trust, though other unmeasured variables may further explain the remaining variance.

Customer Satisfaction (CS) (B =0.516, t =14.415, p<0. 00) has a significantly positive relationship with trust, suggesting that when customers are satisfied with a company, they are more likely to trust that company. A satisfied customer is more likely to perceive the company as reliable, honest, and consistent, which builds trust. Trust is a key driver of customer loyalty and long-term relationships with a brand. By ensuring high levels of Customer Satisfaction (CS), companies can foster greater Trust (T), which can lead to repeat business, positive word-of-mouth, and stronger customer retention.

Construct	Unstandardized Coefficients	Standardized Coefficients		t	Sig.
	B	Std. Error	Beta		
(Constant)	1.983	.147		13.519	.000
CS	.516	.036	.586	14.415	.000

Notes: ***$p < 0.001$, R Square=.343, Adjusted R Square =.341

Table 4.3 Mean and Standard Deviation– Health Insurance in Cambodia

Variables	Mean	St.dev
PA	4.18	0.46
FE	4.04	0.52
PV	3.97	0.55
CS	4.06	0.56
CH	4.01	0.56
T	4.08	0.50

PA shows the greatest on average among other variables. PA has an average of 4.18, while FE, PV, CS, CH and T stands at 4.04, 3.97, 4.06, 4.01 and 4.08, respectively. On the other hand, the standard deviation expresses the least on PA, meaning that PA data is the also least spread out and closer grouping to the mean.

Table 4.4 Summary of Hypothesis Evaluation – Health Insurance in Cambodia

Hypothesized Path		β	t	Sig.	Result
H_1	PA → CS	0.182	3.985	0.000	Accepted
H_2	FE → CS	0.38	7.417	0.000	Accepted
H_3	PV → CS	0.186	3.699	0.000	Accepted
H_4	CS → CH	0.552	13.222	0.000	Accepted
H_5	CS → T	0.586	14.415	0.000	Accepted

The hypothesis testing results reveal that all proposed relationships were significant and accepted. Policy Awareness (PA), Fulfillment of Expectation (FE), and Perceived Value (PV) all have a positive impact on Customer Satisfaction (CS), with coefficients of 0.182, 0.380, and 0.186, respectively. Additionally, Customer Satisfaction (CS) significantly enhances both Complaint Handling (CH) (β = 0.552) and Trust (T) (β = 0.586).

All five hypotheses were supported, indicating strong and statistically significant relationships among the variables. These findings underscore the critical role of Policy Awareness (PA), Fulfillment of Expectation (FE), and Perceived Value (PV) in boosting Customer Satisfaction (CS). In turn, higher levels of customer satisfaction led to improved Complaint Handling (CH) and increased Trust (T). These results highlight the interdependence of these factors and suggest that organizations should focus on enhancing policy awareness, meeting customer expectations, and improving perceived value to drive customer satisfaction, which will, in turn, enhance complaint handling and foster greater trust.

5. CONCLUSION AND DISCUSSION

The previous chapter analyzed the outcomes of the study. In this chapter, author will discuss and summarize the research finding by giving out conclusion, discussion and suggestion, limitation and recommendation for future study.

5.1 Conclusion and Discussion

As the insurance market in Cambodia continues to grow, it remains significantly smaller than in neighboring countries. Persuading every individual in Cambodia to purchase an insurance policy is a considerable challenge. This study developed a hypothesized model to examine customer satisfaction with health insurance products among Cambodian respondents. The analysis confirmed the crucial role of several key factors—policy awareness, fulfillment of expectations, perceived value, complaint handling, and trust—in influencing customer satisfaction.

The findings highlighted significant relationships between these variables, providing valuable insights into customer satisfaction with health insurance products in Cambodia. The study offers both a proposed hypothesis model and empirical evidence on the factors that impact customer satisfaction. The results demonstrate that policy awareness, fulfillment of expectations, perceived value, complaint handling, and trust all have a positive effect on customer satisfaction within the Cambodian insurance industry. These findings emphasize the importance of these factors in improving customer experiences and satisfaction with health insurance products in Cambodia.

5.1.1 Variables used and Relationships

This study contributes to the literature by extending the understanding of key factors influencing customer satisfaction within the emerging health insurance market in Cambodia. The findings highlight the critical roles of Policy Awareness, Fulfillment of Expectations, Perceived Value, Complaint Handling, and Trust in shaping customer satisfaction, while also acknowledging the unique socio-economic and cultural challenges specific to the Cambodian context.

1. Policy Awareness and Customer Satisfaction: While previous research has universally emphasized the importance of Policy Awareness (Smith et al., 2018; Johnson & Nguyen, 2019), this study provides a new perspective by exploring how the nascent stage of Cambodia's health insurance market, limited consumer education, and unequal access to information may influence the relationship between Policy Awareness and Customer Satisfaction. This highlights the need for tailored strategies to enhance Policy Awareness and improve customer engagement in emerging markets.

2. Fulfillment of Expectations and Customer Satisfaction: Consistent with theories like the Expectancy-Disconfirmation Theory (Mittal et al., 1998) and earlier studies (Oliver, 1980; Anderson & Sullivan, 1993), this research reaffirms that meeting or exceeding customer expectations is a key determinant of satisfaction. However, the study also contributes to the literature by showing how Cambodia's unique socio-economic environment and evolving market conditions shape customer expectations, necessitating further exploration of local factors in fulfilling those expectations.

3. Perceived Value and Customer Satisfaction: This study aligns with existing literature on the positive relationship between Perceived Value and customer satisfaction across industries (Sweeney & Soutar, 2001; Varki & Wong, 2003), while further emphasizing the importance of value perceptions in the health insurance sector. The results suggest that in Cambodia, where the health insurance market is still developing, offering value that aligns with consumer expectations is critical to driving satisfaction.

4. Customer Satisfaction and Complaint Handling: Building on existing research (Supriaddin et al., 2015; Liu & Zhao, 2020), this study highlights the importance of customers satisfaction effects complaint handling and fostering trust. It contributes to the literature by demonstrating that in Cambodia's emerging insurance market, where trust is still being established, efficient complaint resolution plays a particularly significant role in retaining customers and building long-term relationships.

5. Customer Satisfaction and Trust: This research extends findings from industries such as medical services (Tang, 2011), banking, and insurance by confirming that customer satisfaction directly influences trust in the health insurance sector. In the Cambodian context, where trust-building is a critical challenge due to the emerging nature of the industry, the study shows that customer satisfaction has a heightened effect on trust, further emphasizing the need for health insurance providers to focus on cultivating trust through positive service experiences.

In sum, this study not only reaffirms established theoretical frameworks but also provides valuable insights into how these frameworks operate within an emerging market like Cambodia. The findings highlight the need for future research to consider the specific dynamics of developing insurance markets, particularly in regions with low levels of market penetration and consumer knowledge, where trust-building and customer education are key to enhancing satisfaction and fostering loyalty.

5.2 Implication

5.2.1 Managerial Implication

Based on the findings of this study, the following managerial implications are offered:

1. health insurance providers in Cambodia's emerging market should focus on enhancing policy awareness through targeted education campaigns and simplified communication to ensure consumers are well-informed, which will empower them to make better decisions and improve satisfaction.

2. Additionally, insurers must fulfill customer expectations by providing clear, transparent communication regarding policy terms and services, and by consistently exceeding expectations in service delivery and claims processing.

3. A strong emphasis on perceived value is essential, with insurers clearly communicating their value proposition and offering competitive pricing alongside added benefits, such as wellness programs, to strengthen consumer satisfaction.

4. Customers satisfaction is critical for complaint handling, with quick and efficient resolution of issues and building trust, particularly in a market where trust is still being established.

5. Insurers should also adopt trust-building strategies, focusing on transparency, reliability, and a customer-centric approach to foster long-term loyalty.

6. Finally, tailored marketing strategies, considering customer demographics and cultural nuances, will help insurers better engage the Cambodian market, ensuring their offerings align with local needs and expectations.

5.3 Limitation, Recommendations for Future Research

Although this research improves understanding of customer satisfaction of health insurance products with policy awareness, fulfillment of expectation, perceived value, complaint handling, and trust, it does not explain the perception of the relation of variables in other countries besides Cambodia. Moreover, the sample studying was conducted randomly and the data were collected via online channel only, which was bias to the respondents who were not access to the internet. Also, the respondents might not find any other convenient ways to get further explanation on the questionnaires provided. Plus, there may be factors that have been overlooked, and this research model is regarded as an overview of the most widespread correlates of customers satisfaction. Other research proposes assessment of the satisfaction with public health insurance programs by patients with chronic diseases in China (Jinsong Geng, X. C., 2021), this research could not impact on understanding of other insurance products.

There are a lot of research topics relating interaction among factors to impact customers satisfaction. This will promote a better understanding of customers satisfaction with health insurance product. The author also specifically boosts general knowledge of roles of each variable and health insurance situation in Cambodia. There are many more moderator factors that need to be looked into in the proposed study topics concerning insurance influencing customers satisfaction or customers loyalty. The following author is recommended to add on with more critical evaluation of conflicting and contrasting studies as well as utilize a mixed-method methodology approach including interview or focus groups to improve the study result and enhance representativeness, which is a suggestion for future study of the following author.

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Online Reviews and Ratings in Consumer Decision-making

Phechkla Nakaew, Jinpatee Upan, Naphassorn Thabmanoch, Thanpischa Sutthisak, Sutana Boonlua, Benchamaphorn Sombatthira, Adam Bates, Byungho Yu, Eakapoom Wongsahai
Mahasarakham Business School, Mahasarakham University

ABSTRACT

Customer evaluations are essential to the success of online shopping platforms. Regardless, there is a significant gap in research regarding the specific factors that influence consumer decision-making during the purchasing process. These factors are multifaceted, encompassing comment length, emotional sentiment, perceived reliability, and visual elements. Each of these dimensions requires a thorough investigation to fully understand the impact of consumer feedback. This study aims to elucidate consumer perspectives on online product ratings, offering valuable insights for product sellers to refine and enhance their products and services effectively. This research has collected data from students in Mahasarakham University area for 400 respondents to analyze the data with correlation analysis and multiple regression analysis. The research determined all hypotheses are supported. The online reviews is positively correlated with rating in consumer decision-making in Mahasarakham province and the variables that rating in consumer decision-making for overall are Social Influence Theory, Heuristic-Systematic Model, and Consumer Behavior Theory as shown in equation: TY = 2.234 + 0.127 SIT + 0.172 HSM + 0.169 CBT.

The results provide consumers with access to a multitude of information and real-time feedback during the information search and alternatives evaluation stage, allowing them to make more informed and rational decisions; it influences post-purchase behaviour through user feedback, brand interactions, and community building; and it encourages consumers to start the decision-making process for purchases by creating demand and problem awareness. Future research should focus on using new technologies like artificial intelligence and virtual reality in order to better understand social media marketing mechanisms and explore the potential for application in new fields like cross-platform integration, content innovation, and social responsibility.

Keywords: Online reviews, Consumer behavior, Social Influence Theory, Heuristic-Systematic Model, Consumer Behavior Theory, Generation Z

Overview

In contemporary society, technological advancements are a major influence on consumer behavior. Online reviews and ratings are powerful tools that influence purchasing decisions. Consumers use reviews and opinions of other consumers as guidelines for shopping. Especially in the online product industry. To view product validation reviews, it is a decision before buying. Online reviews and ratings are like evidence of correct delivery to consumers. Increase brand credibility and reduce the risk of receiving untrue products. Because consumers trust the reviews of other buyers rather than the advertisements of sellers, other consumers' opinions are considered an important element of the decision-making process of new consumers. In the consumer decision-making process, several elements such as socio-cultural, emotional, rational, and psychological factors impact and determine the ultimate purchase decision. Besides these influences, online customer reviews and ratings (OCR & R) may influence the consumer decision-making process and shape the choice of the final purchase decision (Kumar, 2020). Positive reviews can help increase buyers' confidence that they will receive products that meet their needs to help drive sales and increase the number of repeat users/re-purchase purchases in the future. Negative reviews influence consumer search and purchasing decisions. Leveraging exogenous variation created by the display of online reviews sorted by recently, the authors find that negative reviews significantly reduce a product’s purchase probability because they contrast with the often high average product rating (Varga & Albuquerque, 2019). This cause’s consumer confidence in the product to decrease and the consumer's decision to buy will be less likely. Which has a big impact on products. E-commerce refers to the utilization of the Internet for conducting business transactions. It is currently widely used for online purchases and sales. The growing usage of intermediary websites for commerce facilitates the purchasing and selling process by providing a platform to bring together items, buyers, and sellers in one location. Businesses benefit from e-commerce because it enables them to connect with a wide range of clients, both domestically in Thailand and internationally. Unlike traditional shops, supporting these clients is not constrained by a physical area, and it also lowers the expenses associated with paying permanent employees and renting physical locations. The e-commerce business is currently worth watching because, In 2023, the valuation of the e-commerce sector in Thailand will reach 634 billion baht. In the first quarter of 2024, it has grown continuously by more than 67% and is expected to reach 700 billion baht. The main factor is the change in consumer behavior, especially the Gen Z group of teenagers who are more interested in convenience. Currently, Thailand has Gen Z, or those born between 1997 and 2012, approximately 7,600,00,0 or approximately 8.6% of the total Thai population. The future of the e-commerce business in Thailand looks bright, particularly in light of the swift technological progress and evolving customer preferences (Chen et al., 2022). The value of e-commerce in Thailand expanded by over 80% since 2020 and is expected to increase to 750 billion baht by 2025, with 45% of this growth coming from e-commerce. In the current study, this research applies eye-tracking methodologies to improve our understanding of these processes by investigating the relation of attention to consumer ratings and individuals' valuation of goods. Specifically, we measure the distribution of attention to consumer ratings in the context of an online marketplace to predicate consumers' willingness to pay (WTP) and willingness to accept (WTA) supports this (J.S. Ashby et al., 2015). Additionally, the heuristic-systematic model of persuasion (Chaiken, 1980) has been applied to this research for the determinants of consumer perception of review helpfulness and purchase intention in recent years in the online marketing context (Lee & Lin, 2021).

Customer evaluations are essential to the success of online shopping platforms. Regardless, there is a significant gap in research regarding the specific factors that influence consumer decision-making during the purchasing process. To identify current research gaps and establish the rationale for this study, a thorough literature review was conducted on key themes, such as online reviews, the influence of online reviews on purchasing decisions, and underlying processes, such as the quality and reliability of product review information and processing speed/effectiveness to influence customer perceptions on online reviews. These factors are multifaceted, encompassing comment length, emotional sentiment, perceived reliability, and visual elements. Each of these dimensions requires a thorough investigation to fully understand the impact of consumer feedback. This study aims to elucidate consumer perspectives on online product ratings, offering valuable insights for product sellers to refine and enhance their products and services effectively. In order to ascertain whether the fixation dwell time and fixation count for negative comment areas are greater than those for positive comment areas, as well as the degree to which consumers are suspicious of false comments, this study simulated a network shopping scenario and carried out an eye movement experiment to capture how product reviews affect consumers' purchasing behaviour, which also serves as the foundation for accommodating deeper processes.

Research Questions

1. How much do you think giving star ratings in online product reviews influences purchase decisions?

2. How important are the images and videos from product review comments to your purchasing decision?

3. How much does the seller's response to your questions affect your purchase decision?

4. How often do you survey the ratings and read reviews before making a purchase decision?

5. How much does the difference between products with many and few reviews affect your purchasing decision?

Research Objectives

1. To examine the influence on consumers' decision-making to buy products from previous consumer ratings and reviews.

2. To analyze the influence on consumers' decision-making to buy products, whether

images and videos help in decision-making.

3. To investigate the influence on consumers' decision-making to buy products, and whether seller responses affect consumers' decision-making.

4. To determine the influence on consumers' decision-making to buy products, whether they give importance to product review scores in making decisions.

5. To examine the influence of consumers' purchasing decisions on how many and a few reviewers affect different purchasing decisions.

6. To suggest or contribute the research results to the e-commerce Industry.

Scope of the Research

This research examines Thai Generation Z consumers who intentionally value internet usage and online platforms to purchase products or services. The researchers have conducted a survey considering a sample of 400 students currently reading at Mahasarakham University to use as appropriate data collection.

Literature review

Social Influence Theory

Social Influence Theory (SIT) was originally formulated by Herbert Kelman (1953) in the early 1950s as the framework explaining the conditions under which social influence induces attitude or behavior change (Davlembayeva & Papagiannidis, 2024). Taken collectively, the theory of social influence acknowledges that humans, unlike animals, possess volitional control (Lim & Weissmann, 2022). The proliferation of e-commerce platforms has rendered online reviews a significant factor in shaping consumer perceptions and influencing purchasing decisions. Humans, as individuals, live in a society, and thus, they are inherently situated in a position where they may contribute to social influence or be socially influenced themselves. In essence, social influence is a reflection of how the society impacts the individual, comprising of the ways in which the society attempts to shape the beliefs, perceptions, values, attitudes, intentions, and behaviors of the individual. In this regard, this article argues that social influence is unlikely to manifest only as a single variable but rather as several variables, which can be logically explained and organized (Lim, 2022). Consumers often rely on online reviews to make purchase decisions. Influence internalization is an act of adopting behavior because it is construed as being congruent with personal values and views (Kelman, 1958; Pelinka & Suedfeld, 2017; O'Keefe, 2016)

Aspects of social influence theory apply to consumer behavior.

1. Online Social Network: This kind of social influence is of particular interest in the subfield of social networks and online purchasing as it links the structure and composition of networks and the individual behaviors and outcomes of actors embedded in them (Filieri et al., 2018; Perry & Ciciurkaite, 2019). The direction of influence theoretically depends on the attitude, attribute, or behavior of the participants in the network (Bartal et al., 2019) and the relationship between participants in social networks and the extent of the influence (Argo & Dahl, 2020).

The impact of online social networks on consumer purchase decisions will be more pronounced for products with high social visibility, such as fashion and electronics, compared to products with low social visibility, like groceries and household supplies.

2. E-WOM Readership: Reviewer online (e-WOM readership) refers to any positive or negative statement about a product or company made by a potential, actual, or former customer that can be made available to the people over the Internet and is considered trustworthy (Alsoud et al., 2022). The reliable and trustworthy source of information that provides referential and diagnostic for the potential buyer, who can overcome purchase uncertainty (Al-Adwan et al., 2022; Putri Utami et al., 2020), and avoid the punishment caused by making a wrong decision (Singh & Matsui, 2017; Bastos & Moore, 2021).

Consumers who actively read and interact with online reviews from reputable sources, such as verified purchasers and expert reviewers, will demonstrate greater purchase intention and satisfaction than those who depend exclusively on product descriptions or marketing materials.

3. The trustworthiness of internet reviews appears to be important when making purchasing decisions based on them. Given the significance of credibility in the context of online reviews and subsequent purchase decisions, it is understandable that review credibility is of tremendous interest to both consumers and marketers.

Consumers will be more likely to be influenced by online reviews from sources perceived as credible (e.g., independent reviewers, experts) compared to reviews from unknown or potentially biased sources (e.g., company employees, competitors).

The Heuristic-Systematic Model (HSM)

The Heuristic-Systematic Model (HSM), originally developed by Chaiken and her colleagues (Axsom, Yates, & Chaiken, 1987), is a fundamental framework that analyzes how individuals build attitudes in response to persuasive messages. The model fundamentally distinguishes between two modes of information processing: the systematic and the heuristic modes. In the systematic mode, individuals engage in effortful processing of information, where they critically evaluate the arguments presented, scrutinize the credibility of the sources, and consider the relevance and coherence of the information. This mode is characterized by a high level of cognitive effort, as individuals are motivated by a desire for accuracy or deeper understanding. (HSM) describes two cognitive processing modes: the systematic mode, which requires significant cognitive effort and thorough information.

Heuristic-Systematic Model of Information Processing:

1. Heuristic Processing: Heuristic processing uses learned judgmental rules stored in memory, requiring minimal cognitive effort from the recipient. It is guided by availability, accessibility, and applicability. Availability refers to the knowledge structure stored for future use, accessibility is about retrieving that memory, and applicability concerns its relevance to the task. Heuristic processors are more likely to agree with expert messages or endorsed information without deeply

analyzing the content. They rely on accessible information, such as the source of a message, which can influence persuasion more than the message itself. This approach emphasizes simple cognitive rules over detailed information processing in persuasion.

Consumers with limited time or experiencing cognitive overload will be more likely to rely on heuristics to quickly assess the quality of a product or service based on online reviews.

2. Systematic Processing: Systematic processing entails the analytical assessment of judgment-relevant information, prioritizing source credibility and message substance, which profoundly affects persuasion. Attitudes formed through this approach require considerable cognitive effort as recipients actively analyze and assess the message's arguments and validity. This method highlights the importance of detailed message processing and how message-based cognitions can mediate opinion change. While systematic processors focus on content, source characteristics and other factors can also aid in assessing the message's validity.

The presence of detailed and informative reviews with well-supported arguments will increase the likelihood of consumers engaging in systematic processing.

3. Choosing Systematic or heuristic processing: Heuristic and systematic processes may function separately or in conjunction, affecting one another's results. The Heuristic-Systematic Model suggests that attitudes formed through heuristic processing are generally less stable and less predictive of behavior compared to those formed through systematic processing. Recipients may accept conclusions they would typically reject if they do not invest time to analyze the message. When economic concerns dominate, heuristic processing is likely, while high reliability concerns lead to systematic processing. Effective persuasion is influenced by source credibility, especially under conditions of low issue or response involvement.

Heuristic cues (e.g., high star ratings) can influence the direction and strength of systematic processing by priming consumers to expect positive or negative information.

Online reviews and ratings can attract both heuristic and systematic processors depending on their presentation and context. By understanding how consumers process information, businesses can effectively design their review systems to influence decision-making and build trust with potential buyers (Yang, 2024).

Consumer Behavior Theory

According to Blackwell, ‘consumer behavior is the actions and decision processes of people who purchase goods and services for personal consumption’ (Blackwell et al., 2006). Solomon states that consumer buying behavior is a process of choosing, purchasing, using and disposing of goods and services by the individuals and groups in order to satisfy their needs and wants (Solomon, 1995). Consumer buying behavior research attempts to reveal the buying decision-making process. It researches consumer characteristics such as behavioral variables and demographics in an attempt to understand people’s wants and needs. Thus, such research allows forecasting concerning not only the subject of purchases but also its motives and purchase frequency (Wu et al., 2021).

To understand the relationship between the environment that influences decision-making, the process is divided into three steps:

1. Input is the stage where external factors influence the consumer's decision-making process. These include the company's marketing activities, which consist of the marketing mix, and social environmental factors. These factors surround the consumer and influence the shaping of various individual behaviors, such as family, reference groups, social class, and culture. Both external factors collectively influence the consumer's purchasing decision.

Enhanced marketing initiatives, such as advertising and promotions, will result in heightened consumer awareness and evaluation of a product.

2. The process is the stage of the consumer's decision-making process influenced by psychological factors such as motivation, needs, understanding, learning, personality, values, and attitudes of the consumer. These factors will affect the awareness of needs, information search before purchase, and evaluation of alternatives before purchase by the consumer.

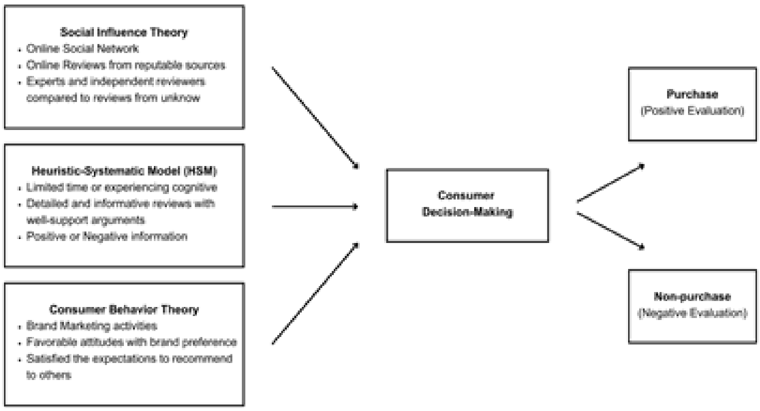
Favorable attitudes towards a brand will enhance the probability of consumers selecting that brand in preference to its competitors.

3. Output is the final step of the process, which involves post-purchase behavior and post-consumption evaluation. The outcome of consumption may be satisfaction or dissatisfaction with the product or service. This outcome will be remembered as a consumption experience and will influence the psychological factors of the consumer in subsequent instances (Sukcharoen, 2012; Mahaputra, 2022).

Consumers who perceive a product as having satisfied their expectations are more inclined to recommend it to others.

Similarly, in group conformity, individuals purchase products to follow group norms and match the tastes of other group members (Beran, Kaba, Caird, & McLaughlin, 2014; Cialdini & Goldstein, 2004; Grotts & Johnson, 2013). Multiple studies on reference group influences have shown a connection between group membership and brand choices (Bearden & Etzel, 1982; Bearden et al., 1989; Bettman & Escalas, 2005; Burnkrant & Cousineau, 1975; Childers & Rao, 1992). Researchers have identified a clear link between the need to belong and purchasing behavior in group settings (Algesheimer, Dholakia, & Herrmann, 2005; Mahaputra, 2022). This pattern emerges when people buy products to fit in with group standards or when they choose items—such as specific product models or brands—that align with group preferences (Griskevicius, Goldstein, et al. 2006; Park & Feinberg, 2010)

Research Framework



RESEARCH METHOD

In the research of "online reviews and rating in consumer decision-making", the researchers used research methods as finding Population and Sample, then following with Data Collection Instrument, Instrument Design and Development, Data Collection Procedure, Data Preparation and Analysis and Statistics Used for Data Analysis.

Population and Sample Population:

Population: The population of this research contains all students in Mahasarakham University (MSU). According to official university information, there are 45,399 students, the population in the Thakonyang, Mahasarakham area is 2,281 people, and the population in the Kham Riang, Mahasarakham area is 10,872 people (www.msu.ac.th, 2025).

Sample: 400 MSU students (Krejcie & Morgan, 1970: 608) by simple random sampling.

Data Collection Instrument

This research was divided into 3 sections as follows:

Section 1: General information of respondents consists of five questions. The questions in this section used the checklist and covered information such as gender, age, status, faculty and average monthly income.

Section 2: Opinions on The marketing mix of Amazon Café consist of five variables. The questions in this section used the rating scale.

Section 3: Opinions on customer satisfaction consist of nine questions. The questions in this section used the rating scale.

Data Collection Procedure

In this research, the researcher collected data through the following steps:

1. Prepared the number of complete questionnaires according to sample size of the research,

2. Requested Masaharakham Business School of Mahasarakham University a cover letter which was attached with the questionnaire in order to ask permission from the sample to complete the questionnaire confidentially,

3. Collected the questionnaires and checked the completeness of questionnaires which received from the sample of the research, and

4. Prepared data for analyzing in computerized system

Reliability

According to Hair et al. (2010), reliability is the extent to which the measurement is accurate and dependable. The internal consistency of each concept was examined in this study using the Cronbach's alpha coefficient. One method for assessing the consistency or dependability of a set of several items that comprise the scale is internal consistency (Andersson, Boateng, & Abos, 2024). The reliability was estimated using Cronbach's alpha or coefficient alpha. To guarantee internal consistency, Cronbach's alpha should therefore be higher than 0.70 (Nunnally & Bernstein, 1994). The findings of Cronbach’s alpha coefficients were between 0.715 and 0.757 which exceeds the acceptable cut-off score.

Data Analysis

Data analysis was divided into 4 sections as follows:

1. Data analysis on general information of respondents was done by descriptive statistics method to find statistics values such as frequency and percentage.

2. Data analysis on online reviews and rating in consumer decision was done by descriptive statistics method to find statistics values such as mean and standard deviation. Data presentation was made through tabular format along with explanation and summary. The questionnaire answers of the research are determined by following points (Srisaart, 2002: 43) Strongly agree (5 points) to Strongly disagree (1 point). With five-level Likert scales, it means that the scores failing between the following ranges could be considered generally the level of opinion as: Mean: 4.51 – 5.00 strongly agree, 3.51 – 4.50 agree, 2.51 – 3.50 Neutral, 1.51 – 2.50 disagree, and 1.00 – 1.50 strongly disagree.

3. Comparison between variables on mean differences of sample which consists of two variables was done by t-test and of more than 2 variables was done by One Way Analysis of Variance (ANOVA).

4. Investigation on the online reviews and rating in consumer decision was done by Correlation Analysis and Multiple Regression Analysis.

RESEARCH FINDINGS

The general information of respondents consists of Gender, Age, Educational Level, Field of Study, and Average Monthly Income as presented in the Table 1.

Table 1 General Information of Respondents

General Information	Frequency	Percentage
1. Gender		
1.1 Male	115	28.80
1.2 Female	268	67.00
1.3 Other	17	4.20
Total	400	100.00
2. Age		
2.1 Under 18 years old	20	5.00
2.2 18-22 years old	316	79.00
2.3 23-30 years old	62	15.50
2.4 31 50 years old and above	2	0.50
Total	400	100.00
3. Educational Level		
3.1 High School	3	0.80
3.2 Freshman	74	18.50
3.3 Sophomore	59	14.80
3.4 Junior	98	24.40
3.5 Senior	98	24.40
3.6 Super Senior	59	14.80
3.7 Master/Doctoral	9	2.30
Total	400	100.00
4. Field of Study		
4.1 Business Administration and Accounting	166	41.50
4.2 Humanities and Social Sciences	133	33.30
4.3 Science and Technology	63	15.70
4.4 Others	38	9.50
Total	400	100.00
5. Average Monthly Income		
5.1 Below 3,000 Baht	37	9.30
5.2 3,001-6,000 Baht	136	34.00
5.3 6,001-8,000 Baht	86	21.50
5.4 8,001-10,000 Baht	91	22.70
5.5 More than 10,000 Baht	50	12.50
Total	400	100.00

According to the Table 1, most of respondents are female (67.00%), age is between 18-22 years old (79.00%) and 23-30 years old (15.50%), junior and senior MSU students (49.00%), business administration and accounting field of studying (41.50%) and humanities and social sciences (33.30%), and monthly average income between 53,001-6,000 Baht (34.00%) and 8,001-10,000 Baht (22.70%).

Level of agreement on online reviews of respondents as presented in the Table 2.

Table 2 Level of agreement on online reviews of respondents

Online Reviews	$\bar{x}$	S.D.	Level of Agreement
1. Social Influence Theory (SIT)	4.339	0.579	Agree
2. Heuristic-Systematic Model (HSM)	4.435	0.520	Agree
3. Consumer Behavior Theory (CBT)	4.392	0.755	Agree
Overall	4.389	0.478	Agree

According to the Table 2, the respondents have level of agreement on online reviews for overall at agree level ($\bar{x}$ = 4.389) and for every variable at mostly agree level which the ranked from high to low mean are Heuristic-Systematic Model ($\bar{x}$ = 4.435), Consumer Behavior Theory ($\bar{x}$ = 4.392), and Social Influence Theory ($\bar{x}$ = 4.339), respectively.

Level of agreement on consumer decision-making of respondents as presented in the Table 3.

Table 3 Level of agreement on consumer decision-making of respondents

Online Reviews	$\bar{x}$	S.D.	Level of Agreement
1. Purchase Intention Behavior	4.358	0.717	Agree
2. Brand Perception and Attitudes	4.277	0.538	Agree
3. Social Influence and Information Seeking	4.229	0.637	Agree
Overall	4.288	0.473	Agree

According to the Table 3, the respondents have level of agreement on consumer decision-making for overall at agree level (= 4.288) and for every variable at mostly agree level which the ranked from high to low mean are Purchase Intention Behavior (= 4.358), Brand Perception and Attitudes (= 4.277), and Social Influence and Information Seeking (= 4.229), respectively.

Investigating the connections between variables is the primary goal. Verifying the multicollinearity issue, which arises when the inter-correlation between independent variables is more than 0.80, is the second goal (Hair et al., 2010). Table 4 displays the findings of correlation analyses for every variable used in this research.

Table 4 shows the results from correlation metric. The correlation of the dimensions online reviews and rating in consumer decision-making including that is 1.000 ($p < 0.01$). The value of variance inflation factor (VIF) is between 1.223 and 1.351, which is lower than the cut-off score of

10 as suggested by Hair et al. (2010). For regression analysis, the VIF and correlations both ensure that multicollinearity issues do not arise.

Table 4 The Results of the Correlations

Variables	TY	SIT	HSM	CBT	VIF
Mean	4.288	4.339	4.435	4.392	
SD	0.473	0.579	0.520	0.755	
TY	1				
SIT	0.342**	1			1.351
HSM	0.357**	0.459**	1		1.337
CBT	0.395**	0.370**	0.358**	1	1.223

N = 400

**Correlation is significant at the 0.01 level (2-tailed)

The Ordinary Least Squares (OLS) regression analysis is employed to investigate the hypothesized relationships. The regression equation is a linear combination of the independent variables that are considered to best explain and predict the dependent variable. The results of OLS regression analysis for H1-H3 are presented in Table 5.

Table 5 The Results of the Regression Analysis

Independent Variables	Coefficients
Constant	2.234** (0.203)
SIT	0.127** (0.042)
HSM	0.172** (0.046)
CBT	0.169** (0.0.31)
No. of Obs.	400
R^2	0.227
Adj. R^2	0.221
F-Statistic	38.715**
Durbin-Watson	1.739

** represent statistical significance at 1% standard errors in paratheses

The model from Table 5 is supported by a one-way error component technique to estimate data. Palasak, Boonlua, & Jirawuttinunt (2021) suggest that whether F-test is rejected the null hypothesis of a common intercept, that dataset is reliability to analyse. Most of the estimated coefficients are statistically significant. Moreover, the relationship rate is 22.10% and the F-test for model is strong significant at the 1% level. The Adj. R2 represents the percentage of variance in the dependent variable that can be accounted for by the independent variable or variables, is a metric used to assess how well a statistical model predicts an outcome. And this shows 22.10% of the variation in the dependent variable is explained by the independent variable(s) in the model. The value of Durbin-Watson found that 1.739. It confirms that values of all variables are accepted and trustworthy range from 1.50 to 2.50 (Gujarati, 2006). The results determine Hypotheses 1-3 are supported.

The online reviews is positively correlated with rating in consumer decision-making in Mahasarakham province and the variables that rating in consumer decision-making for overall (TY) are Social Influence Theory (SIT), Heuristic-Systematic Model (HSM), and Consumer Behavior Theory (CBT) as shown in the following equation:

$$TY = 2.234 + 0.127\ SIT + 0.172\ HSM + 0.169\ CBT$$

The results show that the social or socioeconomic factors—which include impacts from friends, family, socioeconomic class, culture, and reference groups—have a big impact on consumer decision-making. They shape attitudes, preferences, and eventually purchasing behaviour. This is consistent with Yang (2024), following a customer's purchase, social media continues to have a big influence on their post-buy behaviour, which usually includes sharing product experiences, fostering brand loyalty, and influencing word-of-mouth marketing. The internet shopping is untouchable, customers specifically employ user comments to mitigate potential hazards from knowledge asymmetry. These results present the data processing proof that consumers are likely to seek out further information for more in-depth analysis and to compare when unfavourable remarks arise, since this may lead them to decide not to purchase the product in order to lower their risk. Furthermore, customers are used to leaving favourable reviews when they shop online, provided that any complaints are within their acceptable bounds. Moreover, it's possible that some online retailers are fabricating positive reviews (Wu et al., 2021). The internal power that propels customers to act is known as motivation. Purchase decisions are influenced by a variety of factors, including physiological, safety, social, esteem, and self-actualization demands. Purchase decisions are influenced by a consumer's perceptions, which include opinions about commercials, brand image, and product attributes. Customers may perceive the same thing differently depending on their individual perceptual experiences (Krisyanti & Indrajaya, 2024).

CONTRBUTIONS AND SUGGESTIONS

This study offers a summary of the complex influence of online review (implies as a social media) on consumer purchase decisions. This study obtain a thorough grasp of how social media can play a significant role in influencing the purchasing decisions of consumers by reviewing the definitions, categories, and primary purposes of social media. Through the transmission of information, social authentication, and immediate contact at different phases of the consumer purchase decision process, social media greatly influences the attitudes and behavioural choices of customers. Social media, in particular, encourages consumers to begin the decision-making process for purchases by creating demand and problem awareness during the problem identification stage; it gives them access to a wealth of information and real-time feedback during the information search and alternatives evaluation stage, enabling them to make more informed and logical decisions; and it influences post-purchase behaviour through user feedback, brand interactions, and community building. Through user feedback, brand involvement, and community building, social media further enhances consumers' brand loyalty and word-of-mouth communication during the post-purchase behaviour stage.

Brands must continue to innovate and enhance their marketing strategies in order to overcome the numerous obstacles that social media marketing encounters, such as information overload, content quality, social trust, and data privacy.

In order to better understand social media marketing mechanisms and investigate the potential for application in new fields like cross-platform integration, content innovation, and social responsibility, future research should concentrate on utilising new technologies like artificial intelligence and virtual reality.

ACKNOWLEDGMENT

This research is financially supported by Mahasarakham Business School, Mahasarakham University, Thailand.

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Factors Affecting Re-purchased by Overall Satisfaction of Amazon Café in Mahasarakham

Thanawat Wongpaisan, Alissara Ahosi, Chanissara Naichit, Mancuree Woramarit, Parita Namhat, Sutana Boonlua, Pankom Sriboonlue, Pornpiya Muangkhiew, Pongsathorn Tantrabundit, Andrew Cottam, Duangrat Tandamrong
Mahasarakhm Business School, Mahasarakham University

Abstract

This research aims to analyze factors affecting repeat purchases at Amazon Café in the Mahasarakham University to measure the level of satisfaction after using Amazon Café services. The research question is what factors affect re-purchased at Amazon Café in Mahasarakham University? Considering that Amazon café's services are used by 301 household heads of people who live in this area by simple random sampling. The correlation analysis and simple regression analysis were employed to investigate the effects of factors affecting re-purchased by overall satisfaction of Amazon café in Mahasarakham. The findings show hypotheses 2 and 5 are supported. The hypothesis proposes that price and staff variables are positively affected to customer satisfaction and re-purchased behaviour. According to the research, the degree of staff service mentality and attitude promotes customer happiness and repurchase behaviour. As a result, it pushes businesses to improve their customer service and creates a positive environment for both employees and customers. The attitude of the employees may also stimulate the development of eco-friendly alternatives to boost business revenue. By using these strategies, businesses can anticipate better performance results, which will boost their market competitiveness and profitability. Customers may stop paying attention to the price until they get what they desire.

Keywords: re-purchased, satisfaction, Amazon café, Mahasarakham

Introduction

Due to the fact that Amazon café produces the best coffee beans in Thailand, coffee drinking has historically been a habit among Indonesians. For a while now, Thai coffee has been developing at a rather quick pace. Coffee drinking is more than simply a pastime; it has been ingrained in the way of life for practically every age group in society, including teens and adults. Coffee is still a dependable companion when socializing or working, and it's no longer only used to combat drowsiness (Filimonau, Krivcova, & Pettit, 2019).

There is a lack of research on customer perceptions of re-purchased at Amazon in Mahasarakham University. Since Amazon café have three branches in the Mahasarakham University area. Since it has three branches in Mahasarakham University. Consequently, an unprecedented number of consumers are accessing the service, but we are unsure whether these consumers will return in the future.

Customer satisfaction is a critical metric that assesses how well products or services meet or exceed customer expectations. Repeat purchase intention, shaped by previous experiences, reflects a customer's likelihood to buy again. Key elements such as service quality, brand image, and perceived value play pivotal roles in shaping customer satisfaction and fostering loyalty.

Elevated levels of customer satisfaction drive repeat purchases, boosting revenue and profitability. Positive experiences enhance market share through word-of-mouth referrals. However, investments in improving service quality and customer experience may increase operational costs, requiring strategic resource management.

Eco-friendly practices, such as using sustainable materials and reducing waste, enhance brand perception, particularly among environmentally conscious consumers. However, the environmental footprint of café operations, including energy and water consumption, may affect both customer satisfaction and operational efficiency.

Cafés that actively engage with their communities build stronger relationships and foster customer loyalty. Supporting local events and initiatives strengthens customer connections. Furthermore, motivated and satisfied employees deliver better service, directly influencing overall satisfaction and repeat purchase behavior.

Cafés like Amazon contribute to local economies by creating jobs and sourcing products from local suppliers. Additionally, they serve as social hubs, fostering connections and enhancing community cohesion, which influences repeat visits.

There is limited research on how cultural factors specific to Thailand influence customer satisfaction and repurchase intentions at Amazon Café. The impact of digital engagement, such as social media interactions, on customer loyalty is underexplored. Additionally, more studies are needed on how environmental practices and comparative analyses with other coffee chains affect repurchase behavior. Addressing these gaps will provide deeper insights into the factors driving customer satisfaction and loyalty. The goal of this research is to identify the elements that affect coffee shop customers in Mahasarakham and Thailand because the prospects for coffee shops in Mahasarakham are excellent and there are opportunities to continue developing other coffee shops.

Objectives of the Research

1. To analyze factors affecting repeat purchases at Amazon Café, New Campus, Mahasarakham University.
2. To measure the level of satisfaction after using Amazon Café services.
3. To identify service flaws from the customers' perspective.
4. To examine the volume of users at Amazon Café.
5. To evaluate the impact of independent variables (product, promotion, staff, and place) on overall satisfaction.
6. To study the demographic profile of customers.
7. To gather customer suggestions for improving Amazon Café's services.

Research Questions

1. What factors affect repeat purchases at Amazon Café, New Campus, Mahasarakham University?
2. What is the level of satisfaction after using Amazon Café services?
3. How can service flaws from customers' perspectives be studied?
4. How can the user volume at Amazon Café be assessed?
5. How do independent variables (product, promotion, staff, and place) influence overall satisfaction?
6. How can customers' demographic profiles be analyzed?
7. What recommendations do customers provide for improving Amazon Café's services?

Main Hypotheses.

This research posits that various factors significantly impact customer satisfaction and repeat purchases at Amazon Café. Product and service quality are primary drivers of repeat purchases, while reasonable pricing is hypothesized to influence the decision to return. A positive store atmosphere is predicted to enhance customer satisfaction and drive loyalty. Sub-hypotheses explore how factors like good beverage taste, consistent quality, quick service, friendly staff, and attractive pricing strategies (including promotions and discounts) contribute to satisfaction and repeat visits. Additional hypotheses suggest that store accessibility and environmentally-friendly packaging bolster customer loyalty.

Scope of Research.

This research focuses on students and staff at Mahasarakham University who use Amazon Café services. The sample size will include 100–200 participants. The research will cover Amazon Café operations within the Mahasarakham University area, with data collected between January and March 2024.

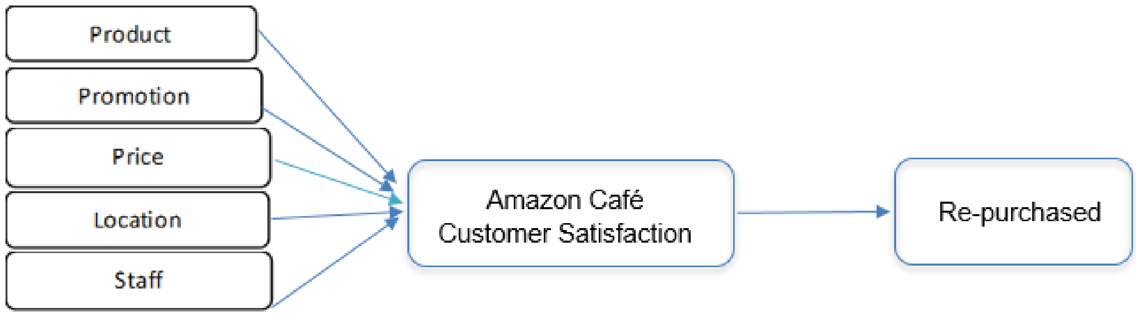

Figure 1 Conceptual framework

Significance of the research

1. Get acquainted with the target population.
2. Examine the purchasing habits of your customers.
3. Examine how customers see mediating and independent variables (e.g., personnel, location, promotions, and items). The general contentment and re-purchased act as the dependent variable.
4. Examine how the population's judgments of independent, dependent, and mediating variables compare.
5. Research on mediating variables concerning independent variables.
6. Examining how the mediating variable affects the dependent variable
7. Examine customer feedback on how to make Watson's goods and services better.

Literature Review

According to this research study, the researcher researched factors influencing re-patronage at Amazon Café using data based on concepts, theories, and related research results. The following is a summary of the topic.

1. Amazon Café Profile
2. Variables of the study
   - independent variable
   - moderator variables
   - Dependent Variables
4. Related research

Amazon Café Profile

Amazon Café is a visionary concept that merges the traditional café experience with Amazon's technological expertise to create a unique, customer-centric environment. The café offers premium coffee, artisanal beverages, and a curated menu of light meals and snacks, all sourced sustainably to meet diverse dietary preferences. Leveraging Amazon's "Just Walk Out" technology, the café ensures a seamless cashier-less checkout experience, while its integration with the Amazon app allows for pre-ordering and personalized recommendations based on customer preferences and Prime membership history. The space is designed to be more than just a café, featuring interactive Kindle lounges, Audible listening stations, and opportunities to explore Amazon devices like Echo and Fire tablets. Targeted at tech-savvy professionals, urban millennials, and loyal Amazon Prime members, Amazon Café aims to redefine the coffee shop experience by offering a high-tech, community-driven space that combines productivity, relaxation, and innovation. With a strong emphasis on technology, sustainability, and customer engagement, Amazon Café positions itself as a trailblazer in the emerging hybrid café-retail market.

Case 1: Amazon's 4P Strategy for Market Expansion Research Topic: "The Role of 4P Strategies in Expanding Amazon's E-commerce Market in Southeast Asia". This can conclude as:

• Product: Amazon adapts its product offerings in each country, such as including local products in Asian countries.

• Price: Competing through Dynamic Pricing and offering discounts during Prime Day.

• Place: Establishing Fulfillment Centers in Thailand and Singapore to reduce delivery times.

• Promotion: Utilizing local influencers to promote the brand. Findings:

• Customers in the region responded positively due to faster delivery times and competitive pricing.

Case 2: Customer Mix and Personalization Research Topic: "The Use of AI and Big Data to Create Personalization on Amazon's Platform". This can conclude as:

• Customer Behavior Analysis: Amazon uses AI to collect data such as search and purchase history to recommend products.

• Personalization: Sending personalized emails suggesting products based on user behavior.

Results:

• Customers receiving personalized recommendations were 35% more likely to make a purchase.

• Cart abandonment rates decreased.

Case 3: RIC and Long-Term Customer Relationships Research Topic: "The Role of Amazon Prime in Building Long-Term Customer Relationships". This can conclude as:

• Relationship: Amazon Prime members receive exclusive benefits, such as free delivery and access to Prime Video.

• Interaction: Amazon uses multiple channels, such as app notifications and emails, to interact with customers.

• Commitment: Customers feel more committed due to the perceived value of the benefits. Findings:

• Prime members purchase 4 times more annually compared to regular customers.

• Customer loyalty increased by 50%.

Case 4: Customer Satisfaction with Product Returns Research Topic: “Factors Influencing Customer Satisfaction with Amazon’s Product Return Process”. This can conclude as:

• Return System: Amazon provides a convenient and free product return process.

• Customer Support: Quick responses via online systems and Chatbots. Results:

• 90% of customers using the return system rated their satisfaction as high.

• Satisfied customers were more likely to make repeat purchases on Amazon.

Marketing Mix (4Ps: Product, Price, Place, and Promotion)

In the book "Basic Marketing: A Managerial Approach," marketing professor and author E. Jerome McCarthy first proposed the categorisation of the four Ps for developing a successful marketing plan in 1960. The four main elements of a marketing mix are product, pricing, placement, and promotion, or the "4Ps." This framework aims to develop a thorough strategy that distinguishes a good or service from its rivals while also benefiting the consumer. Marketing managers may handle each of the 4Ps differently depending on the target market and sector. Although each component can be assessed separately, in reality, they frequently depend on one another (Chana et al., 2021).

The marketing mix of Amazon Café can be:

1. Product

Amazon Café offers a premium selection of specialty coffees, teas, and handcrafted beverages, alongside a variety of artisanal pastries, snacks, and light meal options tailored to diverse dietary needs. The café integrates Amazon's technological innovations, such as "Just Walk Out" technology for cashier-less checkout and AI-driven personalized recommendations. Additional features include Kindle lounges, Audible listening stations, and displays of Amazon gadgets, creating a hybrid space for relaxation, productivity, and hands-on product exploration.

2. Price

The amount of money given or set as consideration for the sale of a specified thing.

3. Location

Strategically located in high-traffic urban areas, co-working spaces, and near Amazon Go/ Fresh stores, Amazon Café aims to capture a diverse customer base. Its modern and tech-friendly ambiance is designed to encourage extended visits, with features such as ample seating, charging stations, and quiet zones for work or study. The café also integrates seamlessly with Amazon’s online ecosystem, offering options like app-based pre-ordering, pick-up lockers, and returns for Amazon packages, bridging the gap between physical and digital retail.

4. Promotion

Amazon Café leverages Amazon’s extensive digital ecosystem for promotion, including targeted campaigns on the Amazon app, website, and social media platforms. Exclusive offers for Prime members, such as first-visit discounts or loyalty rewards, incentivize engagement. The café also partners with influencers and hosts events, such as book signings or community gatherings, to build a strong local presence. Collaborations with brands and content creators from Amazon Prime Video or Audible further enhance promotional efforts, creating a dynamic and engaging brand image.

5. Staff

Amazon Café's staff structure is designed to balance exceptional customer service with seamless technological integration. Key roles include Café Managers to oversee operations and ensure customer satisfaction, Baristas to prepare and serve high-quality beverages and food, and Technology Support Specialists to maintain systems like cashier-less payment and app integration. Customer Engagement Specialists enhance the café experience through events and loyalty program promotions, while Cleaning and Maintenance Staff ensure a clean and inviting environment. With cross-training on both café operations and Amazon's technology, the team focuses on delivering a personalized and efficient experience, aligning with Amazon's customer-first philosophy.

Amazon Café's customer satisfaction

Customer satisfaction is a measure of how well a company's products, services, and overall customer experience meet customer expectations. It reflects your business's health by showing how well your products or services resonate with buyers. Nowadays, firms are adapting a market-oriented strategy to create satisfaction for customers.

Re-purchase

The habit of making multiple purchases from the same brand is known as repeat purchasing. Given that customers have made the decision to patronize a business once more and purchase their goods, it is typically interpreted as a sign of increasing consumer satisfaction and loyalty.

Customer Satisfaction

Customer satisfaction defines as a person's feelings of pleasure or discontentment that result from contrasting their expectations with the apparent performance of a product or service are referred to as satisfaction (Limma et al., 2023). Customer satisfaction can be a subjective emotional reaction to buying, shopping, or the process of buying and acquiring a product. It is also a criterion for evaluating the customer experience that is used to evaluate the desired and real qualities of a product. Maintaining corporate success over the long term depends heavily on customer pleasure. To preserve or increase their market share, businesses must work to outperform their rivals by providing higher-quality goods or services that satisfy consumer demands (Limma et al., 2023).

Amazon is renowned for its focus on customer satisfaction, which has been a cornerstone of its success. The company achieves this through several strategies and practices designed to meet and exceed customer expectations.

How Amazon Ensures Customer Satisfaction:

1. Customer-Centric Approach:

• "Customer Obsession" Philosophy: Amazon prioritizes customer needs above all else.

• Jeff Bezos famously emphasized listening to customers and innovating on their behalf.

2. Seamless Shopping Experience:

• User-Friendly Website and App: Intuitive navigation, detailed product descriptions, and personalized recommendations.

• 1-Click Purchasing: Simplifies the checkout process, reducing friction.

3. Competitive Pricing:

• Constant monitoring of prices to offer competitive rates.

• Regular discounts, deals, and promotions.

4. Fast and Reliable Delivery:

• Prime Membership: Free two-day, one-day, and even same-day delivery options.

• Expanding logistics networks for faster fulfillment.

5. Exceptional Customer Service:

• 24/7 customer support through phone, chat, and email.

• Hassle-free return and refund policies.

6. Personalization and Recommendations:

• Uses AI to recommend products based on browsing and purchase history.

• Personalized shopping experience tailored to individual preferences.

7. Wide Product Selection:

• Offers a vast range of products, from essentials to niche items.

• Supports third-party sellers to expand inventory and choices.

8. Customer Feedback and Reviews:

• Encourages honest reviews to build trust.

• Actively uses feedback to improve products and services.

9. Innovation:

• Regularly launches new features like Alexa voice shopping, cashier-less Amazon Go stores, and drone delivery tests.

• Adapts quickly to customer demands and market trends.

RESEARCH METHOD

In the research of “Factors affecting re-purchased by overall satisfaction of Amazon café in Mahasarakham”, the researcher used research methods as finding Population and Sample, then following with Data Collection Instrument, Instrument Design and Development, Data Collection Procedure, Data Preparation and Analysis and Statistics Used for Data Analysis.

Population and Sample Population:

Population: The population of this research contains all the Mahasarakham University students. According to official university information, there are 45,399 students, the population in the Thakonyang, Mahasarakham area is 2,281 people, and the population in the Kham Riang, Mahasarakham area is 10,872 people (www.msu.ac.th, 2025). Those numbers are defined as our population, which is an unknown population.

Sample: Considering that Amazon café's services are used by a large number of people. As a result, the population sampling method was selected. For unbiased information, the study will be based on a sample population of Mahasrakham University, which will include both the general public and students at Mahasarakham University. From a formula:

n = N/(1+N(e)2)

= 58,552/(1+58,552(0.05)2) = 398 persons

There are 400 household heads of people who live in Tah Khon Yang and Khamrieng Sub-districts (Krejcie & Morgan, 1970: 608) by simple random sampling. However, only 301 respondents were completed questionnaires and this could be 75.25% of the response rate which is high enough to go through the analysis section (Krejcie & Morgan, 1970).

Data Collection Instrument

This research was divided into 3 sections as follows:

Section 1: General information of respondents consists of five questions. The questions in this section used the checklist and covered information such as gender, age, status, faculty and average monthly income.

Section 2: Opinions on The marketing mix of Amazon Café consist of five variables. The questions in this section used the rating scale.

Section 3: Opinions on customer satisfaction consist of nine questions. The questions in this section used the rating scale.

Data Collection Procedure

In this research, the researcher collected data through the following steps:

1. Prepared the number of complete questionnaires according to sample size of the research,
2. Requested Masaharakham Business School of Mahasarakham University a cover letter which was attached with the questionnaire in order to ask permission from the sample to complete the questionnaire confidentially,
3. Collected the questionnaires and checked the completeness of questionnaires which received from the sample of the research, and
4. Prepared data for analyzing in computerized system

Data Preparation and Analysis

Data analysis was done through computerized system and was divided into 4 sections as follows:

1. Data analysis on general information of respondents was done by descriptive statistics method in order to find statistics values such as frequency and percentage.
2. Data analysis on implementing of marketing mix and customer satisfaction was done by descriptive statistics method to find statistics values such as mean and standard deviation.

Data presentation was made through tabular format along with explanation and summary. The questionnaire answers of the research are determined by following points: (Srisaart, 2002: 43) Very Satisfied (5 points) to Strongly Disagree (1 point). With five-level Likert scales, it means that the scores failing between the following ranges could be considered generally the level of satisfaction as: Mean: 4.51 – 5.00 Very Satisfied, 3.51 – 4.50 Satisfied, 2.51 – 3.50 Neutral, 1.51 – 2.50 Dissatisfied, and 1.00 – 1.50 Very Dissatisfied.

3. Comparison between variables on mean differences of sample which consists of two variables was done by t-test and of more than 2 variables was done by One Way Analysis of Variance (ANOVA).

4. Investigation on the effects of factors affecting re-purchased by overall satisfaction of Amazon café in Mahasarakham was done by Correlation Analysis and Simple Regression Analysis.

RESEARCH FINDINGS

The general information of respondents consists of Gender, Age, Status, Faculty/Department, and Average Monthly Income as presented in the Table 1.

Table 1 General Information of Respondents

General Information	Frequency	Percentage
1. Gender		
1.1 Male	109	36.20
1.2 Female	188	62.50
1.3 Other	4	1.30
Total	301	100.00
2. Age		
2.1 Under 18 years old	13	4.30
2.2 18-22 years old	234	77.70
2.3 23-30 years old	41	13.70
2.4 31 50 years old and above	13	4.30
Total	301	100.00
3. Educational Level		
3.1 Undergraduate Student	246	81.80
3.2 Master Students	18	6.00
3.3 Faculty Members/Staff	17	5.60
3.4 Other	20	6.60
Total	301	100.00
4. Faculty/Department		

General Information	Frequency	Percentage
4.1 General Science	74	24.60
4.2 Healthcare Science	68	22.60
4.3 Human and Social Science	85	28.20
4.4 Other	74	24.60
Total	301	100.00
5. Average Monthly Income		
5.1 Below 5,000 Baht	20	6.60
5.2 5,001-10,000 Baht	111	36.90
5.3 10,001-20,000 Baht	98	32.60
5.4 20,001-30,000 Baht	47	15.60
5.5 More than 30,000 Baht	25	8.30
Total	206	100.00

According to the Table 1, most of respondents are female (62.50%), age is between 18-22 year old (77.70%) and 23-30 years old (13.603%), undergraduate students (81.70%), human and social science field of studying (28.20) and general science and other (24.60%), and monthly average income between 5,001 and 10,000 Baht (36.90%) and 10,001-20,0000 Baht (32.60%).

Opinions on implementing of marketing mix and customer satisfaction of respondents as presented in the Table 2.

Table 2 Opinions on implementing of marketing mix and customer satisfaction of respondents

Implementing of Marketing Mix	$\bar{x}$	S.D.	Level of Satisfaction
1. Product	2.571	1.354	Neutral
2. Price	3.060	1.060	Neutral
3. Location	2.389	0.999	Dissatisfied
4. Promotion	2.047	1.110	Dissatisfied
5. Staff	1.904	0.845	Dissatisfied
Overall	2.394	0.498	Dissatisfied

According to the Table 2, the respondents have expressed their opinions on implementing marketing mix and customer satisfaction for overall at dissatisfied level ($\bar{x}$ = 2.394) and for every variable at mostly dissatisfied level which the 3 variables and neutral level for two factors ranked from high to low mean are price ($\bar{x}$ = 3.060) and product ($\bar{x}$ = 2.571), respectively.

Investigating the connections between variables is the primary goal. Verifying the multicollinearity issue, which arises when the inter-correlation between independent variables is more than

0.80, is the second goal (Hair et al., 2010). Table 3 displays the findings of correlation analyses for every variable used in this research.

Table 3 shows the results from correlation metric. The correlation of the dimensions implementing of marketing mix and customer satisfaction including that is 1.000 ($p < 0.01$). All the five dimensions of implementing of marketing mix is related positively significant to customer satisfaction and re-purchased decision of the customers. The value of variance inflation factor (VIF) is between 1.480 and 1.809, which is lower than the cut-off score of 10 as suggested by Hair et al. (2010). For regression analysis, the VIF and correlations both ensure that multicollinearity issues do not arise.

Table 3 The Results of the Correlations

Variables	TY	PRD	PRI	LOC	PRM	STA	VIF
Mean	3.908	2.571	3.060	2.389	2.047	1.904	
SD	0.550	1.354	1.060	0.999	1.110	0.845	
TY	1						
PRD	0.035	1					
PRI	0.261**	0.057	1				1.772
LOC	0.084	-0.051	0.035	1			1.480
PRM	-0.045	0.058	0.029	0.098	1		1.809
STA	0.112	0.072	-0.165**	-0.019	-0.049	1	1.542

N = 301

**Correlation is significant at the 0.01 level (2-tailed)

The Ordinary Least Squares (OLS) regression analysis is employed to investigate the hypothesized relationships. The regression equation is a linear combination of the independent variables that are considered to best explain and predict the dependent variable. The results of OLS regression analysis for H1-H6 are presented in Table 4.

Table 4 The Results of the Regression Analysis

Independent Variables	Coefficients
Constant	3.194** (0.159)
PRD	0.006 (0.023)
PRI	0.141** (0.038)
LOC	0.040 (0.037)

Independent Variables	Coefficients
PRM	-0.033 (0.037)
STA	0.102** (0.037)
No. of Obs.	301
R^2	0.102
F-Statistic	6.669**
Durbin-Watson	1.597

* represent statistical significance at 1% standard errors in paratheses

The model from Table 4 is supported by a one-way error component technique to estimate data. Palasak, Boonlua, & Jirawuttinunt (2021) suggest that whether F-test is rejected the null hypothesis of a common intercept, that dataset is reliability to analyse. Most of the estimated coefficients are statistically significant. Moreover, the relationship rate is 10.20% and the F-test for model is strong significant at the 1% level. The value of Durbin-Watson found that 1.597. It confirms that values of all variables are accepted and trustworthy range from 1.50 to 2.50 (Gujarati, 2006). The results determine Hypotheses 2 and 5 are supported. The hypothesis proposes that price and staff variables are positively affected to customer satisfaction and re-purchased behaviour. According to the findings, customer satisfaction and re-purchased behaviour increases with their level of staff service mind and attitude (Souto, 2021). According to earlier studies, the organisation of human resource encourages ongoing service mind in serving products and services, which leads businesses and industries to shift from production practices that harm the environment to the creation of friendly industries. Consequently, it encourages businesses to upgrade to service practices and establishes a favourable climate for the staff and customer together. The result is consistent with Wang, Zhu, & Luo's study (2023), who state that the business transition to human-intensive environment is made possible by its friendly climate, which is the integration of production and service factors. The research findings also show a re-purchased link between marketing mix with the staff factors and customer satisfaction. This is to approve the Ma, Lin, & Xiao's study (2022) that the effect of staff attitude may encourage the establishment of environmentally friendly alternatives, increasing the firm income.

CONCLUSION AND SUGGESTION

For those working in beverage business management, this research offers significant managerial insights. Research indicates that price and staff attitude significantly affects the customer satisfaction and re-purchased behaviour. It is essential for corporate managers to concentrate on planning, organising, and leading among other facets of price. Business must first decide what the objectives of price and staff factors are and what steps are necessary to reach them. To obtain a competitive edge, this is an essential step. Second, arrange the connections between the employees, tasks, and materials required to accomplish the objectives to enhance the effectiveness of the work. To accomplish financial and non-financial goals, managers need therefore exhibit excellent management abilities, inspire employees to work together productively, and make the most of customer satisfaction.

The study's practical implications are significant since the findings give marketers, coffee shop owners, and other businesses valuable information to develop effective strategies that focus on the elements that affect consumer loyalty and happiness. Businesses should expect improved performance outcomes by putting these methods into practice, which will increase their profitability and competitiveness in the market. Until customers have what they want, the customers might not merely pay attention to the price (Lima et al., 2023).

ACKNOWLEDGMENT

This research is financially supported by Mahasarakham Business School, Mahasarakham University, Thailand.

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Unveiling India's Fiscal Journey: An In-depth Exploration of Central Government Finances Across the COVID-19 Timeline

Prashanth Kumar, MAHE Bengaluru and MuKund Sharma
Research Scholar, Visvesvaraya Technological University.
Professor and HOD, BNMIT

Abstract

This research offers a thorough analysis of India's evolving fiscal framework, emphasizing the intricate relationship between effective economic policies and persistent fiscal challenges. It acknowledges consistent growth in revenue receipts but highlights the significant fiscal pressure arising from increasing interest obligations on accumulated debt. India's fiscal landscape underwent substantial shifts in 2020-21, primarily driven by elevated borrowings and expanded subsidies due to the COVID-19 pandemic. While tax revenues continue as the central source of government income, opportunities clearly exist for diversification into non-tax revenue streams. Additionally, the study underscores the contrasting growth patterns of primary and fiscal deficits, indicating underlying fiscal imbalances. Given these findings, it is crucial for policymakers to carefully address the considerable fiscal gap and escalating debt burden in the forthcoming budget formulation. Ultimately, the analysis underscores the necessity of adopting balanced and strategically planned economic policies to safeguard India's fiscal stability.

Keywords: 1) Fiscal Deficit 2) Primary Deficit 3) Revenue Expenditure 4) Interest Payments
5) Govt. Borrowings.

1 Introduction

Fiscal policy fundamentally involves the government's strategic management of revenue collection and public expenditure to direct a nation's economic trajectory. It includes thoughtful adjustments in taxation, spending, and borrowing aimed at achieving key macroeconomic objectives such as sustained growth, economic stability, and equitable wealth distribution. Within India's diverse and complex economic structure, the Central Government assumes a pivotal role, formulating and continuously refining fiscal policies that significantly influence the nation's economic landscape.

Over recent years, India has embarked on substantial fiscal reforms. The introduction of the Goods and Services Tax (GST) in July 2017 marked a significant reform in India's indirect taxation, creating a unified national market and significantly improving tax compliance and revenue efficiency[1]. The Insolvency and Bankruptcy Code (IBC), initiated in 2016, has expedited the resolution of non-performing assets, strengthening the financial health of the banking sector[2]. Despite these measures, the COVID-19 pandemic dramatically shifted India's fiscal strategy. The Central Government's fiscal deficit sharply escalated to 9.2% of GDP in 2020-21, driven by increased expenditures for healthcare, social protection, and economic recovery measures[3].

Post-pandemic (2021-2024), the fiscal strategy pivoted towards balancing deficit reduction and strategic capital investments. The government successfully reduced the deficit to 6.7% of GDP in 2021-22, further decreasing to 5.6% by 2023-24[3]. This research delves comprehensively into these fiscal intricacies, analyzing patterns in government revenues, expenditure priorities, and resultant fiscal outcomes. Using authoritative sources, the study aims to provide policymakers with essential insights for informed fiscal planning.

2 Literature Review

In "A Role of Fiscal Policy Impact on Indian Economy: An Overview with Case Study," Srinidhi R. and Ragu Balan P. (2018) extensively review India's fiscal environment, emphasizing fiscal policy's stabilization function during economic downturns. They elaborate on historical fiscal policy effectiveness and the Indian government's continuous struggle to balance ambitious growth targets with fiscal responsibility, providing a detailed case study of past fiscal responses[4].

"Union Budget 2022-23: Fiscal-Monetary" presents an insightful analysis of the recent budget, discussing how fiscal measures interact with monetary policies. It particularly focuses on infrastructure investments' ability to "crowd in" private investment. It further emphasizes recalibrating the balance between fiscal austerity and growth-supportive measures, arguing that overly conservative fiscal approaches may negatively impact economic recovery and stability[5].

"Fiscal Federalism in India," authored by N K Singh, Chairman of the 15th Finance Commission, provides an in-depth exploration of fiscal interactions between India's central and state governments. Singh critically assesses fiscal decentralization, the complexities of intergovernmental transfers, and the imperative for maintaining fiscal discipline amidst competing demands and political dynamics[6].

The RBI's working paper "Subnational Government Debt Sustainability in India: An Empirical Analysis" (2020) delves into subnational debt dynamics, emphasizing that continuous fiscal deficits are a major driver of unsustainable debt levels at state levels. It offers empirical evidence highlighting key factors that influence debt sustainability, reinforcing the need for stringent fiscal discipline at all governmental tiers[7].

Supriyo De (2012), in "Fiscal Policy in India: Trends and Trajectory," alongside the ADBI Working Paper "Debt Dynamics, Fiscal Deficit, and Stability in Government Borrowing in India: A Dynamic Panel Analysis," extensively discusses India's historical fiscal policy landscape. These studies highlight that sustainable debt management necessitates aligning government consumption with actual revenue receipts, advocating for borrowings to be strictly directed towards productive investments[8].

"The Indian Fiscal Response to COVID-19" by Chakraborty and Thomas (2020) provides a critical evaluation of India's fiscal stimulus packages during the pandemic. It assesses the scale and effectiveness of the fiscal interventions, their immediate impacts, and potential long-term implications for fiscal health and overall economic stability[9].

"Public Debt Management in India" by Rao and Kumar (2018) offers a comprehensive review of public debt management strategies in India. They discuss the importance of adopting structured, transparent frameworks for debt management to effectively manage fiscal risks and ensure macroeconomic stability[10].

Patel and Sharma (2019), in their work "Evaluating the Impact of Fiscal Deficit on Economic Growth in India," examine the complex relationship between fiscal deficits and economic growth. They argue for a carefully balanced approach to deficit management, emphasizing that controlled fiscal deficits can support growth without compromising fiscal health[11].

The IMF report "Assessing India's Fiscal Reforms" (2021) critically evaluates India's recent fiscal policy reforms, notably GST implementation and changes in public spending patterns. It acknowledges improvements in revenue efficiency while identifying persistent challenges in optimizing expenditure effectiveness and ensuring fiscal discipline[12].

Lastly, "Fiscal Discipline and Economic Growth: An Empirical Investigation in the Indian Context" by Agarwal et al. (2021) empirically investigates the relationship between fiscal discipline and economic growth in India. The study presents robust evidence demonstrating that stringent fiscal discipline supports sustained economic expansion, offering valuable insights for policymakers in designing effective fiscal policies[13].

3 Methods

3.1 Objectives

1. To unveil the trajectory of central government expenditure, with special emphasis on key components such as interest payments, major subsidies, and defence spending, and their evolving share within total revenue expenditure before and after COVID-19, from FY 2016-17 to FY 2024-25

2. To explore and highlight the changing trends in central government revenue, distinctly categorizing them into tax and non-tax revenues across the pre- and post-pandemic periods during the period FY 2016-17 to FY 2024-25.

3. To provide an in-depth analysis of the fiscal and primary deficit trends, assessing their progression and impact on India's fiscal stability throughout the COVID-19 timeline (FY17 to FY25)

3.2 Sources of Data

The research relies exclusively on secondary data collected from the Ministry of Statistics, Ministry of Finance, Reserve Bank of India (RBI), and various financial news sources.

3.3 Data Processing and Analysis plan

The data was analyzed specifically using statistical measures like growth rates, percentages, ratios, and trend analysis, including Compound Annual Growth Rate (CAGR).

3.4 Limitation of the study

• The actual data is not available for the FY 23-24 and FY 24-25. The study uses Revised Estimates (RE) for the FY 23-24 and Budgeted Estimates (FY 2024-25 and FY 2024-25), which might introduce minor discrepancies.

• The analysis exclusively focuses on Central Government fiscal data, excluding State Government financial details.

• The study restricts to a period of three years before COVID (FY 2016-17 to FY 2019-20), during COVID (FY 2020-21), and three years after COVID (FY 2021-22 to FY 2024-25)

4 Results

The table below analyzes trends in major expenses, revenues, and fiscal deficit of India's Central Government across the pre-COVID (FY 2017-2020) and post-COVID periods (FY 2020-2025) (Amount in Crores, INR)

Table 1 Major Expenses, Incomes and Fiscal Deficit FY 2017 to FY 2025

Sl No	Particulars	Year									CAGR (%)
		2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24(RE)	2024-25 (BE)	
1	Revenue Receipts (a+b)	13,74,203	14,35,233	15,52,916	16,84,059	16,33,920	21,69,905	23,83,206	26,99,713	31,29,200	10.83%
	(a)Tax Revenue (net of States' share)	11,01,372	12,42,488	13,17,211	13,56,902	14,26,287	18,04,793	20,97,786	23,23,918	25,83,499	11.25%
	(b)Non-tax Revenue	2,72,831	1,92,745	2,35,704	3,27,157	2,07,633	3,65,112	2,85,421	3,75,795	5,45,701	9.05%
2	Revenue Expenditure	16,90,584	18,78,833	20,07,399	23,50,604	30,83,519	32,00,926	34,53,132	35,40,239	37,09,401	10.32%
	Interest Payments	4,80,714	5,28,952	5,82,648	6,12,070	6,79,869	8,05,499	9,28,517	10,55,427	11,62,940	11.68%
	Major Subsidies	2,34,809	2,24,455	2,22,954	2,62,304	7,58,165	5,03,907	5,77,916	4,40,536	4,28,423	7.81%
	Defence Expenditure	1,65,410	1,86,127	1,95,572	2,07,572	2,05,789	2,28,559	2,56,183	2,98,669	2,82,773	6.93%
3	Revenue Deficit (2-1)	3,16,381	4,43,600	4,54,483	6,66,545	14,49,599	10,31,021	10,69,926	8,40,527	5,80,201	7.88%
4	Capital Receipts (non-debt) (a+b)	83,369	1,23,609	1,18,298	77,303	1,27,806	74,511	1,09,320	80,832	93,952	1.51%
	(a) Recovery of loans	17,630	15,633	18,052	18,316	19,729	24,737	26,161	26,000	28,000	5.95%
	(b)Other receipt (mainly PSU disinvestment)	47,743	1,00,045	94,727	50,304	37,897	13,627	46,035	30,000	50,000	0.58%
	(c) External loans (net)	17,997	7,931	5,519	8,682	70,180	36,147	37,124	24,832	15,952	-1.50%
5	Capital expenditure	2,84,610	2,63,140	3,07,714	3,35,726	4,26,317	5,92,874	7,40,025	9,50,246	11,11,111	18.56%
6	Non-Debt Receipts [1+4(a)+4(b)]	14,39,576	15,50,911	16,65,695	17,52,679	16,91,546	22,08,269	24,55,403	27,55,713	32,07,200	10.53%
7	Total Expenditure [2+5]	19,75,194	21,41,973	23,15,113	26,86,330	35,09,836	37,93,800	41,93,157	44,90,486	48,20,512	11.80%
8	Fiscal Deficit [7-1-4(a)-4(b)]	5,35,619	5,91,062	6,49,418	9,33,651	18,18,290	15,85,531	17,37,755	17,34,773	16,13,312	14.78%
9	Primary Deficit [8-2(a)]	54,905	62,110	66,770	3,21,581	11,38,421	7,80,032	8,09,238	6,79,346	4,50,372	30.09%
10	Borrowings and other liabilities	5,35,619	5,91,062	6,49,418	9,33,651	18,18,290	15,85,531	17,37,755	17,34,773	16,13,312	14.78%

The table below presents an analysis of major expenses compared to incomes and their impact in terms of percentages on the Central Government's finances, spanning FY 2017 to FY 2025, including periods before, during, and after the COVID-19 pandemic.\

Table 2 Major expenses are analyzed in comparison to incomes and their impact in percentage terms, spanning the fiscal years FY 2017 to FY 2025

Sl No	Particulars	Year								
		2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24(RE)	2024-25 (BE)
1	(Interest Payments / Total Revenue)%	35%	37%	38%	36%	42%	37%	39%	39%	37%
2	(Interest Payments / Capital Expenditure)%	169%	201%	189%	182%	159%	136%	125%	111%	105%
3	(Interest Payments / Total Expenditure)	24%	25%	25%	23%	19%	21%	22%	24%	24%
4	(Capital Expenditure/Total Expenditure)%	14%	12%	13%	12%	12%	16%	18%	21%	23%
5	(Revenue Expenditure/Total Expenditure)%	86%	88%	87%	88%	88%	84%	82%	79%	77%
6	(Borrowings/Total Revenue)%	37%	38%	39%	53%	103%	71%	70%	62%	50%
7	(Tax Revenue/Total Revenue)%	80%	87%	85%	81%	87%	83%	88%	86%	83%
8	(Non-Tax Revenue/Total Revenue)%	20%	13%	15%	19%	13%	17%	12%	14%	17%

4.1 Major Revenue Expenditure

The graph analyzes the major revenue expenditures of India's Central Government for fiscal years FY 2017 to FY 2025, covering periods before, during, and after the COVID-19 pandemic.

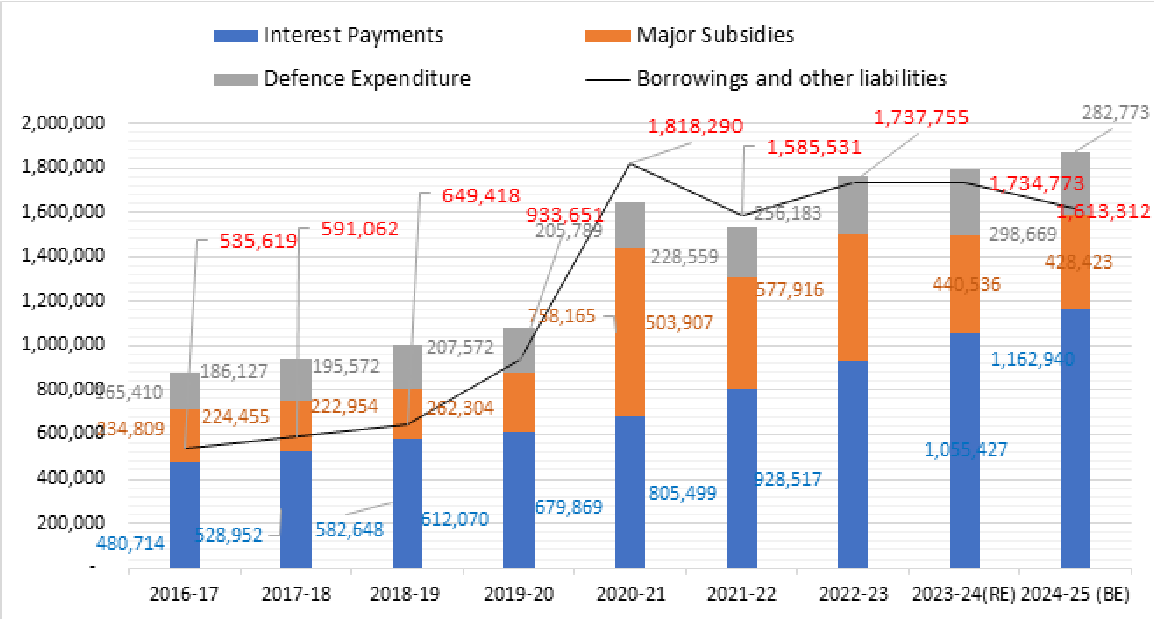

Figure 1 Major Revenue Expenditures (Amount in Crores, INR)

The trajectory of India's central government expenditures from FY 2017 to FY 2025 reflects a complex interplay of fiscal strategies, significantly influenced by the COVID-19 pandemic. Interest payments have consistently been the largest and most rapidly expanding expenditure component, escalating from ₹4,80,714 crores in FY 2016-17 to a projected ₹11,62,940 crores by FY 2024-25. This substantial increase underscores the growing debt-servicing obligations resulting from persistent borrowings. The strong correlation of 0.9 between interest payments and total revenue expenditure demonstrates the significant impact of debt obligations on India's broader expenditure patterns. Notably, in FY 2020-21, interest payments surged to represent 42% of total revenue, highlighting severe fiscal pressure and heightened vulnerability during economic crises.

The fiscal year 2020-21 marked a pivotal disruption, characterized by a drastic surge in borrowings by 94.75% and an extraordinary expansion of subsidies by 209.93%. These extensive fiscal measures were necessitated by the COVID-19 pandemic to safeguard socio-economic stability. Although subsidies reduced post-pandemic—indicating an intentional shift towards fiscal consolidation—the sustained Compound Annual Growth Rate (CAGR) of 7.67% suggests enduring challenges in balancing welfare responsibilities against fiscal discipline.

Defence expenditure has also seen a steady increase, reflecting the government's commitment to national security. The budget estimates for the Ministry of Defence stood at ₹6,81,210 crores for FY 2025-26, an increase of 9.5% from the previous year's estimates. This consistent investment underscores the priority placed on national security without causing abrupt fiscal pressures.

Interestingly, revenue expenditure consistently remained dominant yet declined from 86% of total expenditure in FY 2016-17 to 77% by FY 2024-25, signaling a deliberate policy reorientation towards increased capital spending to stimulate economic recovery. Meanwhile, borrowings, peaking dramatically at 103% of total revenue during FY 2020-21, starkly reveal fiscal stress and underlying structural weaknesses. Collectively, these trends illuminate the complex dynamics and inherent tensions within India's fiscal management, balancing growth, welfare commitments, debt sustainability, and long-term economic resilience

4.2 Revenue Receipts

The graph illustrates the trends in revenue receipts for the Central Government of India, highlighting levels before the pandemic, during COVID-19, and in the subsequent recovery period.

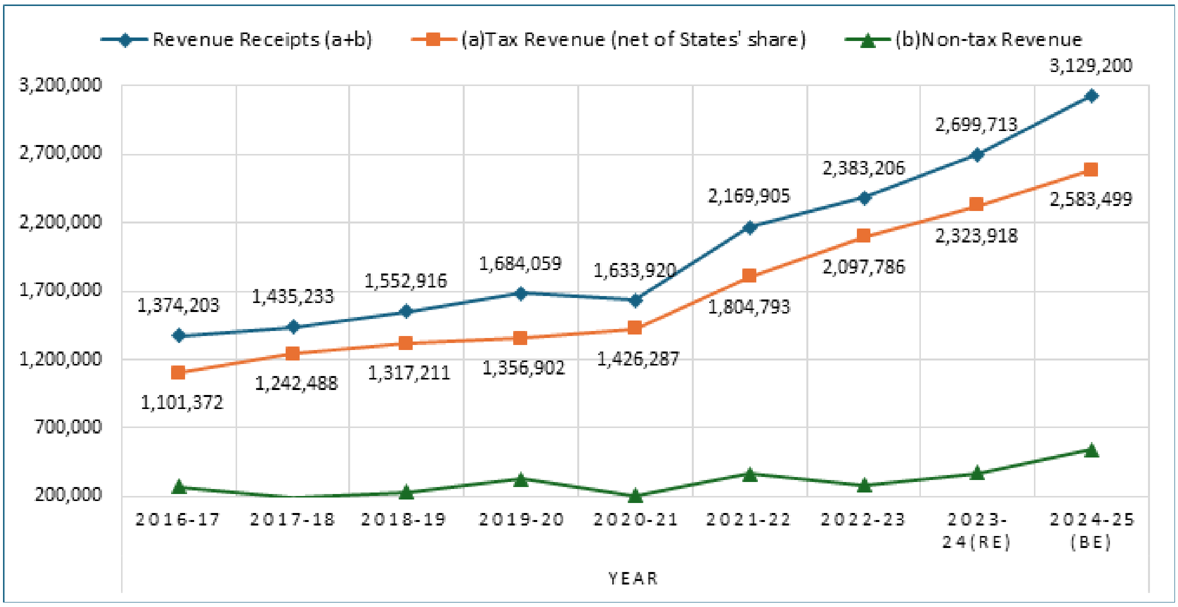

Figure 2 Pattern of Revenue Receipts (Amount in Crores, INR)

The evolution of central government revenues from FY 2017 to FY 2025 highlights a dynamic shift in fiscal policy, shaped by tax reforms, economic fluctuations, and the COVID-19 pandemic. Tax revenue, the primary contributor, exhibited steady pre-pandemic growth, driven by GST implementation (2017), improved compliance, and economic formalization. Net tax revenue increased from ₹11,01,372 crores (FY 2016-17) to ₹13,96,902 crores (FY 2019-20), before pandemic-induced stagnation in FY 2020-21 (₹14,26,287 crores). The pandemic slowed revenue growth significantly, but post-pandemic, tax revenues rebounded sharply, projected at ₹25,83,499 crores by FY 2024-25 (CAGR: 11.25%). Direct taxes (corporate and personal income tax) now account for a larger share, indicating a shift towards a progressive tax structure, while GST collections surpassed ₹10.62 lakh crores by FY 2024-25, reflecting enhanced compliance and recovery in consumer demand. Additionally, the tax-to-GDP ratio improved from 11.6% (FY 2019-20) to 12% (FY 2024-25), signaling a more sustainable revenue base.

Non-tax revenue, historically a smaller share, witnessed significant fluctuations. Before COVID-19, it remained stable at ₹1.88 lakh crores annually. However, the pandemic caused a decline in FY 2020-21 (₹2,07,633 crores) due to lower dividend payouts and reduced economic activity. Post-pandemic, non-tax revenue surged, projected at ₹5,45,701 crores by FY 2024-25, largely fueled by higher RBI and PSU dividends, telecom spectrum auctions, and asset monetization. Notably, dividends and profit transfers now account for nearly 55.7% of total non-tax revenue, reflecting greater reliance on government-controlled surpluses.

Overall, post-pandemic fiscal recovery has been robust, with tax revenues stabilizing and non-tax revenues gaining strategic importance. The revenue trajectory indicates stronger compliance, economic formalization, and enhanced revenue mobilization. However, sustaining fiscal discipline requires continued tax base expansion, improved disinvestment execution, and diversification of non-tax revenue sources to reduce reliance on borrowings and ensure long-term fiscal resilience.

4.3 Fiscal and Primary Deficit

The graph elucidates the evolving trends in fiscal deficit and primary deficit for the Central Government of India, encompassing the periods preceding, during, and following the COVID-19 pandemic.

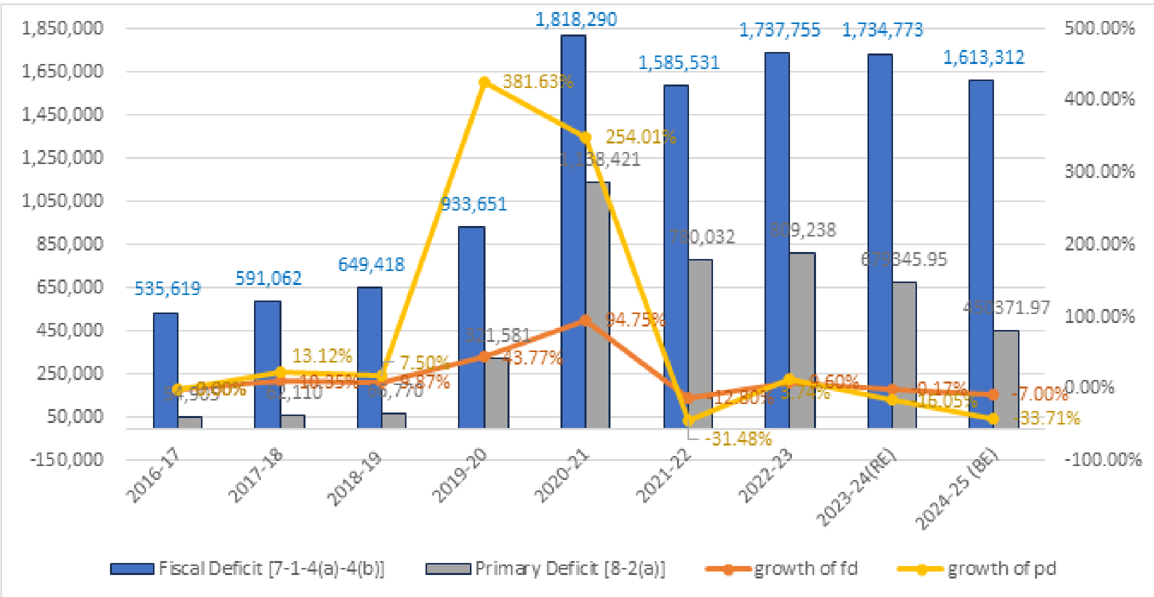

Figure 3 Pattern of Primary and Fiscal Deficit (Amount in Crores, INR)

From FY 2017 to 2025, India's fiscal and primary deficits underwent notable variations, reflecting the nation's evolving economic strategies and the challenges posed, particularly during the COVID-19 pandemic.

Pre-Pandemic Fiscal Discipline (FY 2017–FY 2019): Prior to the pandemic, India's fiscal deficit remained within a manageable range, increasing from ₹5,35,619 crores in FY 2016-17 to ₹6,49,418 crores in FY 2018-19, with an average deficit-to-GDP ratio of 3.5%–4%, aligning with fiscal consolidation targets. The primary deficit, excluding interest payments, was also contained, averaging 0.5%–1.5% of GDP, suggesting prudent fiscal management.

Pandemic-Induced Fiscal Shock (FY 2020–FY 2021): The onset of COVID-19 in FY 2020-21 led to an unprecedented surge in the fiscal deficit, ballooning to ₹18,18,290 crores, accounting for 9.5% of GDP. This massive increase was due to a 94.75% rise in borrowings to sustain welfare schemes, healthcare expenses, and economic relief measures, coupled with a 209.93% escalation in subsidies to support food security, direct transfers, and rural employment programs. Stagnant revenues and a drastic decline in economic activity further exacerbated the fiscal imbalance, leading to a tax revenue shortfall. Consequently, the primary deficit soared to ₹11,38,421 crores, reflecting unprecedented government spending beyond regular commitments—a 381.63% increase from FY 2019-20.

Post-Pandemic Fiscal Consolidation (FY 2022–FY 2025): In the aftermath of the pandemic, the government focused on fiscal consolidation. The fiscal deficit is expected to decline to ₹16,13,312 crores by FY 2024-25, estimated at 5.8% of GDP, demonstrating a gradual return to stability. Similarly, as revenues improved and emergency expenditures reduced, the primary deficit is projected to decrease to ₹4,50,372 crores in FY 2024-25, reflecting enhanced fiscal discipline. Despite this recovery, the deficit remains higher than pre-pandemic levels, largely due to persistent interest payments and slower-than-expected disinvestment proceeds.

While the fiscal deficit is on a declining trajectory, its reduction is slower than revenue growth, indicating persistent spending pressures. Interest payments now account for over 42% of revenue receipts as of FY 2020-21, highlighting the challenge of managing public debt. This restricts the government's ability to allocate funds toward productive capital investment and growth-oriented policies. Borrowings peaked at 103% of revenue in FY 2020-21, exposing vulnerabilities in revenue-expenditure alignment. Post-pandemic, borrowing dependence remains high, necessitating a stronger focus on tax compliance, non-tax revenue enhancement, and disinvestment efficiency. Revenue expenditure dominance declined from 86% in FY 2016-17 to 77% by FY 2024-25, indicating a shift towards higher capital investments for long-term economic growth. India's commitment to fiscal consolidation aligns with its target of reducing the fiscal deficit to below 4.5% of GDP by FY 2025-26. However, this requires sustained revenue growth, expenditure efficiency, and better debt management to ensure fiscal sustainability.

In conclusion, while India has managed to navigate the pandemic-induced fiscal shock, the trajectory of fiscal and primary deficits indicates that interest payments and borrowings continue to pose long-term fiscal risks. Post-pandemic revenue recovery has been strong, but sustaining fiscal health will require tighter control over expenditure, reducing reliance on debt, and ensuring a more balanced approach to welfare and growth investments. The government's commitment to fiscal consolidation is evident, but sustained execution of revenue-enhancing reforms and debt control measures is critical to achieving long-term fiscal stability.

6 Summary & Conclusion

India's fiscal landscape from FY 2017 to FY 2025 reveals a narrative shaped by prudent management, pandemic-induced challenges, and a strategic pivot towards fiscal consolidation. Preceding the COVID-19 pandemic, the fiscal deficit was contained within 3.5%–4% of GDP, reflecting disciplined fiscal policies. However, the pandemic precipitated an unprecedented fiscal expansion, with the deficit peaking at 9.5% of GDP in FY 2020-21, driven by a 94.75% surge in borrowings and a 209.93% increase in subsidies to mitigate the crisis's socio-economic impact. This period also saw the primary deficit escalate by 381.63% from the previous fiscal year, underscoring the extensive fiscal interventions employed.

In the subsequent years, the government's commitment to fiscal prudence is evident, with the fiscal deficit projected to decline to 5.8% of GDP by FY 2024-25. Despite this positive trajectory, challenges persist. Interest payments have grown substantially, comprising over 42% of revenue receipts in FY 2020-21, thereby constraining fiscal flexibility. Additionally, the reliance on borrowings, which peaked at 103% of total revenue in FY 2020-21, highlights underlying structural vulnerabilities in revenue-expenditure alignment. The shift in expenditure composition, with revenue expenditure's share decreasing from 86% in FY 2016-17 to a projected 77% by FY 2024-25, indicates a strategic emphasis on capital investments to bolster long-term economic growth.

In conclusion, while India's fiscal metrics are on a path to stabilization post-pandemic, enduring high interest obligations and dependency on borrowings necessitate continued reforms. Achieving sustainable fiscal health requires enhancing revenue streams, such as broadening the tax base and accelerating disinvestment initiatives; optimizing expenditure by rationalizing subsidies and prioritizing capital spending; and implementing effective debt management strategies, including diversifying debt instruments and extending maturities to mitigate refinancing risks.

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