

# Factors Affecting Breakfast Consumption Behaviour of Bachelor Business Administration Degree Students in Thailand's Secondary Tourism Policy Province

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## ABSTRACT

Breakfast consumption among young adults in Thailand has shown a declining trend, particularly in the southern region, where a significant number of individuals aged 15 to 24 regularly skip breakfast (National Statistical Office of Thailand, 2018). This study explores the factors affecting breakfast consumption behaviour among Bachelor of Business Administration (BBA.) students at Rajamangala University of Technology Srivijaya, Nakhon Si Thammarat Campus-one of Thailand's secondary tourism policy provinces since 2019. With its agricultural richness and unique local culture, the region presents both opportunities and challenges to students' dietary habits. Employing descriptive research design, data collected in 2020 using structured questionnaires from students and thematic analysis. The results indicate that personal behaviour, especially sleep and wake patterns, significantly affects breakfast consumption. Despite awareness of the nutritional benefits of breakfast, students often prioritise convenience due to lifestyle and time management challenges, frequently opting for ready-to-eat or fast food, or skipping the meal altogether. Conversely, those who manage their time well are more likely to consume traditional, nutrient-rich local foods. Additionally, environmental factors, particularly weather conditions and food accessibility, were also found to influence breakfast consumption behaviour. In contrast, economic issues and the amount

of work assigned had only a minimal impact on breakfast consumption behaviour, which differs from other regions.

This research provides new insights into the understanding of breakfast consumption within the socio-cultural and geographical context of a secondary tourism area. It emphasises the need for integrated interventions at the university level, such as time-management education, healthy food accessibility programs, and health-promotion campaigns aligned with Sustainable Development Goal 3: Good Health and Well-being. While the study was conducted before the COVID-19 pandemic, which may have altered behavioural patterns, future research should investigate the long-term impact of the pandemic on students' dietary habits. Further investigations may also explore gender-specific behaviour, longitudinal health outcomes, and the role of institutional support systems.

**Keywords:** Breakfast Consumption, Personal Behaviour, Sustainable Development Goals, University Students, Secondary Tourism Province, Thailand, BBA. Students

# ปัจจัยที่ส่งผลต่อพฤติกรรมการรับประทานอาหารเช้า ของนักศึกษาปริญญาตรี ด้านบริหารธุรกิจ ในจังหวัดที่มีนโยบายการท่องเที่ยวเมืองรอง ของประเทศไทย

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## บทคัดย่อ

การรับประทานอาหารเช้าของผู้ใหญ่ตอนต้นมีแนวโน้มลดลง โดยเฉพาะอย่างยิ่งในภาคใต้ของประเทศไทย โดยส่วนใหญ่ผู้ไม่รับประทานอาหารเช้าจะมีอายุอยู่ในช่วง 15 - 24 ปี (National Statistical Office of Thailand, 2018) การศึกษาในครั้งนี้มีวัตถุประสงค์เพื่อสำรวจปัจจัยที่ส่งผลต่อพฤติกรรมการรับประทานอาหารเช้าของนักศึกษาปริญญาตรี ด้านบริหารธุรกิจ มหาวิทยาลัยเทคโนโลยีราชมงคลศรีวิชัย วิทยาเขตนครศรีธรรมราช ซึ่งเป็นหนึ่งในจังหวัดที่ได้รับเลือกให้ดำเนินนโยบายการท่องเที่ยวเมืองรองของประเทศไทย นับตั้งแต่ปี 2562 เป็นต้นมา นครศรีธรรมราชเมืองที่อุดมสมบูรณ์ด้านการเกษตร และวัฒนธรรมท้องถิ่นอันเป็นเอกลักษณ์ ภูมิภาคนี้จึงเป็นทั้งโอกาสและความท้าทายต่อพฤติกรรมการรับประทานอาหารเช้าของนักศึกษา งานวิจัยนี้เป็นงานวิจัยเชิงพรรณนา ทำการเก็บรวบรวมข้อมูลในปี 2563 โดยใช้แบบสอบถามที่มีโครงสร้างจากนักศึกษาและการวิเคราะห์เชิงวิชาการ ผลการศึกษาบ่งชี้ว่าพฤติกรรมส่วนบุคคล โดยเฉพาะรูปแบบการนอนและการตื่น ส่งผลต่อการรับประทานอาหารเช้าอย่างมีนัยสำคัญ แม้นักศึกษาจะตระหนักถึงประโยชน์ทางโภชนาการของอาหารเช้า แต่บ่อยครั้งที่นักศึกษาให้ความสำคัญกับความสะดวกสบาย เนื่องจากรูปแบบการดำเนินชีวิตและความท้าทายในการจัดการเวลา โดยมักจะเลือกรับประทานอาหารแบบพร้อมรับประทาน หรืออาหารจานด่วน หรือไม่รับประทานอาหารเช้า ในทางกลับกันนักศึกษาที่บริหารเวลาได้ดีมักจะรับประทานอาหารเช้าแบบดั้งเดิมที่มีคุณค่าทางโภชนาการสูง นอกจากนี้ ปัจจัยด้านสิ่งแวดล้อม โดยเฉพาะสภาพอากาศและการเข้าถึงอาหาร พบว่ามีอิทธิพลต่อพฤติกรรมการรับประทานอาหารเช้า

ในขณะที่ปัญหาทางเศรษฐกิจและจำนวนงานที่ได้รับมอบหมายมีผลต่อการพฤติกรรมการรับประทานอาหารเข้าเพียงเล็กน้อย ซึ่งตรงกันข้ามกับภูมิภาคอื่น ๆ

งานวิจัยนี้ให้ข้อมูลเชิงลึกใหม่ ๆ เกี่ยวกับความเข้าใจในการรับประทานอาหารเข้าในบริบททางสังคม วัฒนธรรม และภูมิศาสตร์ของพื้นที่ท่องเที่ยวเมืองรอง เน้นย้ำถึงความจำเป็นในการแทรกแซงแบบบูรณาการในระดับมหาวิทยาลัย เช่น การศึกษาเรื่องการบริหารเวลา โปรแกรมการเข้าถึงอาหารเพื่อสุขภาพ และการรณรงค์ส่งเสริมสุขภาพที่สอดคล้องกับเป้าหมายการพัฒนาที่ยั่งยืนข้อ 3 ในประเด็นการมีสุขภาพที่ดีและความเป็นอยู่ที่ดี ในขณะที่การศึกษาได้ดำเนินการก่อนการระบาดใหญ่ของโควิด 19 ซึ่งพฤติกรรมนักศึกษาอาจมีการเปลี่ยนแปลง ดังนั้นการวิจัยในอนาคตควรตรวจสอบผลกระทบในระยะยาวของการระบาดต่อพฤติกรรมการรับประทานอาหาร การสำรวจพฤติกรรมเฉพาะเพศ ผลลัพธ์ด้านสุขภาพในระยะยาว และบทบาทของระบบสนับสนุนของสถาบัน

**คำสำคัญ:** การรับประทานอาหารเข้า พฤติกรรมส่วนบุคคล เป้าหมายการพัฒนาที่ยั่งยืน นักศึกษา การท่องเที่ยวเมืองรอง ประเทศไทย นักศึกษาปริญญาตรี

## 1. INTRODUCTION

Breakfast is widely recognised as the most important meal of the day, providing essential energy to initiate daily activities and contributing to cognitive development, emotional regulation, and overall well-being (National Statistical Office of Thailand, 2018). Moreover, regular breakfast consumption may positively influence certain aspects of sleep health in healthy young adults (Gwin & Leidy, 2018). According to global public health frameworks, such as the United Nations' Sustainable Development Goals (SDGs), ensuring good health and well-being (Goal 3) is a critical target. Data from the National Statistical Office of Thailand (NSO) reveal those individuals aged 15–24 years consistently consume the fewest regular meals per day, with breakfast being the most frequently skipped meal. In 2017, breakfast skipping rates were particularly high in the southern region (5.9%), with Bangkok reporting the highest rate at 8.3% (NSO, 2017; Thai Statistical Forecasting Division, 2018). This demographic group largely comprises bachelor's degree students, as highlighted by the National Economic and Social Development Board (NESDB, 2018).

This study focuses on understanding the factors affecting breakfast consumption behaviour among Bachelor of Business Administration (BBA.) students at Rajamangala University of Technology Srivijaya (RMUT) in Nakhon Si Thammarat province. This province, identified by the Ministry of Tourism and Sports (MOTS) as a secondary tourism area which presents a rich cultural and agricultural environment, yet students' eating habits remain inconsistent with the local availability of nutritious food. This effort aligns with the United Nations Sustainable Development Goal 3, which advocates good health and well-being. By identifying individual, environmental, and cultural influences, the study contributes new insights into health-related behaviours among university students in non-metropolitan regions.

The study employs a structured questionnaire divided into three parts: (1) sociodemographic characteristics, (2) breakfast consumption behaviour and attitudes, and (3) recommendations and additional insights. Ultimately, the findings aim to raise awareness among business students about the nutritional benefits and economic opportunities of the local food landscape in secondary cities. Furthermore, the insights can support the advancement of national health campaigns, beginning in the South and expanding nationwide. This aligns with broader efforts to integrate business education, public health objectives,

and tourism-based economic development, ensuring that students not only understand but embody the principles of sustainable well-being and strategic management.

## **2. LITERATURE REVIEW**

This section is divided into six main areas which are Theoretical Foundations, Breakfast Behaviour in the Thai Context, Nakhon Si Thammarat: Regional and Tourism Context in 2019, Related Research, Seminal and Recent Studies on Breakfast Consumption, and Academic Contribution.

### **2.1 Theoretical Foundations**

Theory of Planned Behaviour (TPB) – Ajzen (1991)

The Theory of Planned Behaviour is one of the most widely adopted frameworks for understanding health-related behaviours, including eating habits. TPB posits that behavioural intention is influenced by three constructs: attitude toward behaviour (e.g., belief that breakfast improves performance), subjective norms (e.g., perceived social expectations), and perceived behavioural control (e.g., access to food, time constraints). Numerous studies have validated TPB in the context of breakfast consumption. For example, Conner et al. (2002); Sun et al. (2013) found that students' intentions to consume breakfast were significantly influenced by their attitudes and perceived ease or difficulty in doing so.

Health Belief Model (HBM) – Rosenstock (1974)

The Health Belief Model suggests that individuals are likely to engage in health-promoting behaviours if they: perceive themselves at risk of health issues, believe the benefits of action outweigh the barriers, receive cues to action (e.g., campaigns), and feel self-efficacy in taking the action. HBM has been applied to understand why students skip breakfast despite knowing its benefits, with studies showing that time, cost, and convenience often act as significant perceived barriers (Sharma et al., 2018).

## **2.2 Breakfast Behaviour in the Thai Context**

Several government agencies, including the NSO and NESDB, have highlighted a persistent pattern of meal skipping among Thai youth aged 15-24. This trend is particularly acute for breakfast, with southern provinces like Nakhon Si Thammarat showing higher-than-average rates (NSO, 2017). Cultural norms, fast-paced student lifestyles, and the availability of convenient yet non-nutritious food options may all contribute. Although Thailand's secondary tourism policy promotes regional food culture as a development strategy, there is a lack of empirical research exploring whether local populations especially students benefit from this abundance in terms of healthier food behaviours.

## **2.3 Nakhon Si Thammarat: Regional and Tourism Context in 2019**

Nakhon Si Thammarat is located in the southern region of Thailand and features a tropical rainforest climate. It is the most populous province in the region, with a population of approximately 1.56 million. The province's economy is primarily based on agriculture, including rubber plantations and fruit orchards. However, in recent years, tourism has emerged as a strategic sector for regional economic growth. Nakhon Si Thammarat was officially designated as one of Thailand's 55 secondary tourism provinces under the Ministry of Tourism and Sports' national policy. The aim was to stimulate economic activity beyond traditional tourist hubs by promoting local experiences and cultural uniqueness. The province's promotional slogan emphasises its diverse competitive advantages. A study by Yuttitham et al. (2020) evaluated the impact of these tourism promotion policies in Nakhon Si Thammarat and nearby Phatthalung, concluding that tourism growth had increased employment opportunities and generated community-level income. However, the research also cautioned that without strong cooperation among stakeholders, such growth could lead to environmental degradation and over-exploitation of natural resources. Therefore, sustainable tourism should be implemented to generate greater social and economic benefits.

## **2.4 Related Research**

Breakfast consumption is globally acknowledged as essential for maintaining health, concentration, and metabolic function. However, various studies have highlighted declining trends in youth breakfast habits (Shaw, 1998; Rong et al., 2019). In the context of Thailand, despite the abundance of agricultural produce, breakfast skipping persists,

influenced by lifestyle patterns, urbanisation, and time constraints. Ishida et al. (1998) emphasised the link between circadian rhythms and eating habits. Similarly, studies in Japan and Egypt (Waseda University, 2017; Sofar & Hafeez, 2019) showed that institutional support can positively influence students' dietary routines. Meanwhile, Howden et al. (1993) and Watanasin (2020) noted that local food culture plays a key role in food selection, yet modern behaviour often diverges from traditional eating patterns.

## 2.5 Seminal and Recent Studies on Breakfast Consumption

**Table 1** Seminal and Recent Studies on Breakfast Consumption

Author(s)	Year	Focus	Key Findings
Ajzen	1991	Theory of Planned Behaviour	Attitudes, norms, and control predict behaviour intentions.
Conner et al.	2002	Breakfast behaviour in adolescents	Intentions linked with control and social norms.
Wadolowska et al.	2013	Meal patterns among university students (Poland)	Irregular eating, especially breakfast skipping was common.
Sun et al.	2013	TPB application in Chinese college students	Perceived behavioural control had the strongest effect on breakfast intention.
Sharma et al.	2018	HBM and breakfast skipping	Barriers like time and convenience outweighed perceived benefits.
Siriwan et al.	2020	Eating behaviours in Southern Thai universities	Cultural influences and convenience-driven habits affect student choices.



Author(s)	Year	Focus	Key Findings
UNESCO and NSO	2017	Youth behaviour in Southeast Asia	Breakfast skipping prevalent; correlated with urbanisation and student life.

## 2.6 Academic Contribution

This study addresses these gaps by highlighting the disconnect between local food abundance and actual consumption behaviour and offering practical insights for policy makers, university administrators, and tourism developers on how to align food, health, and educational strategies in secondary cities.

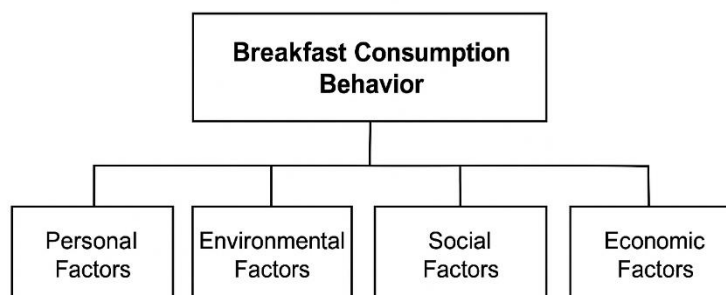
## 3. METHODOLOGY

This study employed a descriptive survey research design. The target population consisted of BBA. students from Rajamangala University of Technology Srivijaya, Nakhon Si Thammarat Campus. A structured questionnaire was used as the data collection instrument, administered in 2020 before the COVID-19 pandemic. The questionnaire included both closed and open-ended questions, covering demographics, breakfast consumption patterns, sleep-wake habits, food preferences, environmental factors, and social influences. The validity of the instrument was reviewed by experts, and reliability was ensured through a pilot test. The data were analysed using frequency distribution and percentage values, and the results were organised into seven sub-topics for clearer interpretation.

### 3.1 Research Design

This study employed a mixed-methods descriptive approach to explore the factors affecting breakfast consumption behaviour among Bachelor of Business Administration (BBA.) students in a secondary tourism province. Quantitative data was gathered through structured questionnaires, while qualitative insights were derived from open-ended responses and observations. This method was selected to comprehensively assess personal behaviours, environmental factors, social attitudes, and economic conditions that shape students' breakfast habits.

**Factors Affecting Breakfast Consumption Behavior  
of BB.A. Students in Thailand's Secondary  
Tourism Policy Provinces**



**Figure 1** Conceptual Framework of Breakfast Consumption Behaviour

### 3.2 Population and Sampling

The target population comprised fourth-year BBA. students enrolled in the academic year 2020 at RMUT. This institution was selected due to its relevance as the only public university in Thung Song District and its proximity to local tourism and food culture under the national tourism policy. A purposive sampling technique was employed to focus on senior students, as they are assumed to have more stable routines and accumulated experience of university life. The sample size was determined using the Taro Yamane formula (1973), which is commonly used for calculating sample sizes for finite populations. For this study, the total population of fourth-year BBA. students at RMUT were approximately 714 students. Thus, a sample size of 260 students was determined to provide a 95% confidence level with a 5% margin of error.

### 3.3 Instrumentation

The research instrument was a structured questionnaire developed based on relevant literature and theoretical models, such as Theory of Planned Behaviour (TPB), the Health Belief Model (HBM), Biological Rhythm Theory from Traditional Chinese Medicine (TCM) for sleep-wake behaviour, Health Behaviour Frameworks from previous breakfast consumption studies in Asia and Western contexts and validated by experts in health behaviour and consumer research.

The questionnaire consisted of three main parts; Part 1: Sociodemographic Characteristics, Part 2: Breakfast Consumption Behaviour and Attitudes, Part 3: Open-Ended Recommendations and Additional Feedback. A pilot test was conducted with a sample of 38 students from RMUT (not part of the final sample) to assess the clarity and relevance of the questionnaire items. Based on feedback, some items were modified to improve clarity and ensure alignment with the study's theoretical framework. Reliability was assessed using Cronbach's alpha, which yielded a coefficient of 0.753, indicating the strong relationship between each item and total score. The scales had an excellent level of reliability scores ( $\alpha = 0.961$  for the attitude scale). Additionally, the Cronbach's alpha based on standardised items was 0.963, further confirming the strong internal consistency of the scale.

### 3.4 Data Collection Procedures

Data was collected through on-site surveys and informal interviews, conducted during a non-examination period to avoid undue stress-related bias from May to December 2020. Questionnaires were distributed in classrooms and collected immediately upon completion to ensure a high response rate and control for survey environment.

### 3.5 Data Analysis

Quantitative data were analysed using descriptive statistics (frequencies and percentages) to identify trends and patterns in breakfast consumption behaviour. To aid clarity and comparison, results were categorised into seven thematic sub-topics, each representing a cluster of factors influencing breakfast habits. This thematic organisation allowed for clearer interpretation of findings and better integration with the discussion and conclusion sections.

## 4. RESULTS AND DISCUSSION

Table 2 Statistical Results for Hypothesis Testing

Statistical Test	Variable	Test Result	p-value	Conclusion
T-Test	Gender and Breakfast Consumption	t = 2.43	p = 0.016	Significant difference between genders in breakfast consumption.

Statistical Test	Variable	Test Result	p-value	Conclusion
ANOVA	Age and Breakfast Consumption	F = 4.67	p = 0.034	Significant difference in breakfast consumption across age groups.
ANOVA	Accommodation and Breakfast Consumption	F = 5.92	p < 0.001	Significant difference based on accommodation type.
Chi-Square Test	Attitudes and Breakfast Consumption	$\chi^2 = 12.55$	p < 0.001	Significant association between attitudes and breakfast consumption behaviour.
Pearson Correlation	Time Management and Breakfast Consumption	r = 0.42	p < 0.001	Moderate positive correlation between time management and breakfast consumption.

Statistical Analysis: to assess the relationships between various factors and breakfast consumption behaviour among the BBA. students, a range of descriptive and inferential statistical analyses were employed. Specifically, descriptive statistics (mean, standard deviation, frequency distributions) were used to summarise the sociodemographic characteristics of the sample and the main behaviours surrounding breakfast consumption. The primary focus was to identify the factors that significantly influence breakfast consumption. The t-tests, ANOVA, and Chi-square tests were conducted to assess these relationships. To test hypotheses and explore the relationships between the variables, several advanced inferential statistical tests were applied (table 2). The findings have been organised into seven sub-topics, each addressing specific aspects of breakfast consumption among BBA. students at RMUT in Nakhon Si Thammarat, based on the data gathered and the hypotheses tested.

#### **4.1 General Background and Academic Performance**

The results indicate that the majority of students surveyed were female and aged between 22-23 years, which is consistent with the demographics of fourth-year students in the Bachelor of Business Administration (BBA.) program. Most students had an average weight of 50-59 kg and a height between 160-169 cm, typical for students of this age group. GPA distribution was also typical, with a significant portion of students having a GPA between 2.51 and 3.00. The fact that most students had never been hospitalised for illnesses related to irregular eating habits further indicates that breakfast consumption and general health may not be strongly linked, suggesting other influencing factors like time management, personal behaviour, and convenience.

#### **4.2 Money and Transaction Patterns**

The financial findings reveal that most students earned over 5,500 Baht per month. The majority of students spent 31- 40 Baht on breakfast, which is not considered excessive, suggesting that money is not a significant barrier to having breakfast. Interestingly, all respondents paid for their breakfast in cash, and most bought breakfast near the campus. This aligns with the idea that financial constraints do not appear to deter breakfast consumption, as students find affordable options nearby.

#### **4.3 Travel and Accommodation**

Despite living mostly in their own homes with parents, the students often choose to eat breakfast at restaurants or shops near the university, demonstrating a preference for convenience over home - prepared meals. The distance from the residence to the university did not significantly affect breakfast consumption, indicating that the choice to skip breakfast may be more strongly influenced by time management and personal behaviour than geographical factors.

#### **4.4 Social and Family Relationships**

The influence of family relationships and social group unity on breakfast consumption was found to be minimal. While family relationships did not significantly affect the decision to consume breakfast, the students' personal behaviours and attitudes appeared more impactful. This highlights that factors like personal autonomy and time management

(such as sleep and wake times) are more influential than cultural or familial pressures in determining breakfast habits.

#### **4.5 Academic Pressures and Attitudes**

The students showed a mixed response to the influence of lecturers and academic workload on breakfast consumption. While some students indicated that the amount of academic work did not affect their breakfast habits, others did not perceive their lecturers as influential in deciding whether to eat breakfast. This suggests that, while academic pressure may indirectly affect breakfast consumption (e.g., by leading students to prioritise study time), it is not a major determinant in this context.

#### **4.6 Personal Behavioural Routines**

The most significant influence on whether students ate breakfast was personal behaviour, particularly related to sleep patterns and wake-up times. The study found that most students woke up between 7:01 a.m. and 9:00 a.m., which often left them with little time to eat before their classes. Additionally, the fact that most students went to bed between 9:01 p.m. and 11:00 p.m. highlights a gap in sleep habits that impacts breakfast consumption. Students who could adjust their sleep-wake cycles were more likely to eat breakfast, supporting the idea that time management plays a critical role in determining breakfast consumption. Furthermore, breakfast time was found to be short, with many students spending only 15 - 30 minutes on their morning meal. The typical breakfast frequency was 3 - 4 days per week, which points to a tendency to skip breakfast, especially when personal behaviour (e.g., waking up late) limits available time.

#### **4.7 Environmental and Regional Influences**

In addition to personal behaviour and convenience, the study highlighted the influence of the local food culture in Nakhon Si Thammarat. Despite the region's rich food culture and availability of nutritious options, the students often preferred convenient foods, such as steamed dumplings (table 4) and sticky rice with grilled pork or fried chicken, rather than focusing on nutritional value. This aligns with the findings from the National Statistical Office (2017), which suggested that convenience often trumps nutritional value for young people in Thailand. Moreover, the study found that the climate of Nakhon Si Thammarat, with its tropical rainforest weather, influenced breakfast consumption. The frequent rain and

heat likely discouraged students from consuming breakfast outdoors or engaging in meal preparation at home. This environmental factor was confirmed by the strong agreement that weather affected breakfast choices, especially given the region's role in Thailand's secondary tourism promotion.

This study provides new insights into breakfast consumption patterns among BBA students at RMUT, particularly regarding the roles of personal behaviour, convenience, and local food culture. The findings suggest that time-related factors, such as sleep-wake cycles, are the primary determinants of whether students eat breakfast, rather than academic pressures or familial influences. This finding aligns with research conducted by Deejuthamane et al. (2022), which reported that 22.6% of secondary school students in Bangkok skipped breakfast due to a lack of time. Similarly, Sirichakwal et al. (2015) identified lack of time as one of the key barriers to breakfast consumption among elementary school children in Bangkok.

#### New Insights and Academic Contributions

A key contribution of this study is the integration of personal behaviour and time management with breakfast consumption habits, a factor less explored in previous research. While previous studies have emphasised the role of convenience and nutrition, this study shows that students' ability to manage sleep directly influences their ability to consume breakfast. Specifically, the findings suggest that waking up late, often due to late bedtimes, is a major barrier to breakfast consumption, which is consistent with Biological Rhythm Theories (Ishida et al., 1998). This aligns with findings from Traditional Chinese Medicine (Zhang et al., 2016), which suggests that early waking between 3-5 a.m. optimises health, while most students wake up later 7-9 a.m., limiting their breakfast options.

Additionally, this study introduces environmental factors, such as the tropical climate of Nakhon Si Thammarat, which affects food choice behaviours. Despite the availability of nutritious food in the region, the hot and rainy climate encourages students to opt for convenient, fast foods, a significant departure from the traditional preference for nutritious foods. This highlights the cultural and environmental dimensions that shape students' food choices, an aspect often overlooked in previous studies that primarily focus on economic and social factors.

### Theoretical Framework Integration

The results of this study can be better understood through the lens of the Social Cognitive Theory (Bandura, 1986), which emphasises the role of personal, behavioural, and environmental factors in influencing health-related behaviours. The study found that students' personal behaviours, especially their sleep habits, were the most significant influence on whether they ate breakfast. This aligns with Bandura's idea that self-regulation of behaviour, such as managing time for sleep and meal consumption, is key to adopting healthier habits. Additionally, the environmental factors such as the availability of convenient food and the climate support the theory's focus on external environmental influences that facilitate or hinder behaviour.

### Extending Existing Knowledge

This study extends existing research on breakfast consumption by focusing not only on nutritional aspects but also on behavioural and environmental factors, integrating them into a comprehensive framework. Unlike previous studies that have predominantly focused on socioeconomic and family dynamics, this study reveals the dominant role of time management and personal autonomy in shaping students' breakfast habits. The integration of the Biological Rhythm Theory (Ishida et al., 1998) offers a new angle on the timing of breakfast, proposing that late waking times may hinder students from making healthier food choices in the morning. This contributes to existing literature by emphasising circadian rhythms as an underexplored factor in food consumption behaviour.

Moreover, the study highlights the growing trend among students to choose convenience over nutrition, mirroring findings from national statistics (National Statistical Office, 2017). It suggests that the convenience factor in food choices often overrides nutritional value, especially when students struggle with time constraints. This is a critical insight, as it calls for more effective interventions that address not only the nutritional value of breakfast options but also the temporal and environmental factors that influence food choices.



**Table 3** The Results and Conclusion of Seven Thematic Areas from the Data Analysis

No.	Seven Thematic Areas	Results and the Data Analysis
1.	Demographics and Academic Background	Most students were female (aged 22-23), with average GPAs between 2.51 and 3.50. Hospitalisation due to irregular eating was rare.
2.	Money and Transactions	Despite having an average monthly income of over 5,500 baht, the cost was not a deterrent to eating breakfast. Cash was the primary transaction method.
3.	Travel and Accommodation	While many students lived at home, they preferred eating near the university. Proximity did not significantly impact their breakfast habits.
4.	Social Relationships	Family dynamics and peer influence had a neutral to moderate effect on breakfast behaviour. However, emotional support and routine appeared to correlate with regular consumption.
5.	Academic Attitudes	Course load and lecturer influence were not significant factors, but time management related to academic commitments played an indirect role.
6.	Personal Behaviour	Sleep and wake times were the most decisive factors. Most students slept late and woke up close to class time, limiting their opportunity to eat.
7.	Environmental and Cultural Factors	Weather and food accessibility, particularly the availability of convenient vs. traditional food, influenced choices. When time allowed, students preferred nutritious local dishes (fig.2).

**Table 4** The Preferred Breakfast Foods Among BBA. Students

Food Category	Examples	Percentage (%)
Traditional Rice Dishes	Rice with side dishes (e.g., curry, stir-fried vegetables), Southern Thai spicy rice salad (Khao Yam Pak Tai)	40
Quick Bites	Chinese steamed dumplings, steamed buns, deep-fried dough sticks	15
	Sticky rice with fried chicken or grilled pork	15
	Porridge, boiled eggs	15
Hearty Meals	Chicken rice soup, barbecued red pork with rice, chicken biryani, stewed pork leg with rice	5
	Thai rice noodles	5
	Noodle soup (Kuaytiao), sukiyaki	5

**Figure 2** Traditional Southern Thai Shared Breakfast in Nakhon Si Thammarat Province

This image depicts a traditional Southern Thai communal breakfast featuring a central pot of steamed rice (Khao Suay (1)) accompanied by various side dishes arranged from right to left:

Yum Pla Kra Bok La (2) – A Southern Thai spicy and sour salad made with dried salted mullet fish.

Kaeng Som (3) – An orange-coloured sour curry with fish, characterised by its tangy flavour derived from tamarind and turmeric.

Tom Chuet (4) – A clear vegetable soup, offering a light and mild broth.

Lhon Kung Kem (5) – Salted prawns served in a savory dipping sauce.

Pak Sod (6) – A selection of fresh vegetables, both commercially cultivated and locally sourced.

This assortment exemplifies the diversity and balance typical of Southern Thai breakfasts, combining spicy, sour, and savory flavours with fresh produce.

**Table 5** The Post-Meal Behaviours, and After-Meal Drink Choices

Category	Option	Percentage (%)
Post-Meal Behaviour	Grab a snack	75
	Smoking/ Other Addictive Substances	12.5
	Consume fruit	12.5
After-Meal Drinks	Water	75
	Soft Drinks	15
	Milk	10

Previous research on breakfast consumption has predominantly focused on the nutritional value of food. However, there has been limited exploration how time-related factors, such as the students' daily schedules. This study can bridge that gap by incorporating these aspects into the analysis, offering a more holistic view of breakfast consumption behaviour.

## 5. CONCLUSIONS AND RECOMMENDATIONS

This study explored the multifaceted factors influencing breakfast consumption behaviour among Bachelor of Business Administration (BBA.) students in Nakhon Si Thammarat- a province designated under Thailand's secondary tourism policy. Despite the region's rich natural resources and food culture, it was found that personal behaviour, including sleep - wake cycles and time management, was the most significant determinant of whether students consumed breakfast. Environmental and contextual factors, such as convenience, weather conditions, and availability of preferred foods, also influenced students' eating decisions. While students demonstrated awareness of the benefits of a nutritious breakfast, many still prioritised conveniences due to lifestyle constraints. This aligns with broader trends observed internationally, where individual behavior- rather than economic constraints- is increasingly linked to breakfast skipping among young adults.

The findings underscore the need for holistic interventions that address behavioural, environmental, and institutional influences. Universities, particularly those in secondary tourism provinces like RMUT, have a key role to play. This includes:

- Raising awareness of the importance of regular, nutritious breakfast consumption.
- Promoting better time management and sleep hygiene as well as promoting healthy eating campaigns aligned with SDG 3 particularly during orientation and mid-term periods.
- Collaborating with local food vendors and student services to ensure accessible and affordable nutritious options near or on campus.
- Implementing university-led time management workshops to help students manage sleep and study schedules, reducing rushed mornings and breakfast skipping.
- Integrating health promotion strategies into university life, similar to Japan's model of subsidised healthy breakfast programs.
- Encouraging collaboration between universities and public health agencies, families and local communities in reinforcing healthy eating habits through outreach and co-curricular activities.
- Concerning signs of substance use post-meal (table 5), integrate drug awareness and prevention efforts into student support services such as Drug Prevention Programs.

In conclusion, this study contributes to the academic understanding of breakfast consumption by integrating new behavioural, environmental, and cultural insights into existing literature. The findings not only extend the understanding of how time management and convenience affect food choices but also propose a framework for future research that incorporates biological rhythms and environmental factors in the study of dietary behaviours among university students. It is not only to individual student well-being but also supports national health and educational development agendas, particularly in emerging regional centres.

## **LIMITATION**

This study was conducted prior to the COVID-19 pandemic. Post-pandemic changes in student behaviour, including increased online learning, altered daily routines, and economic pressures, may have influenced breakfast consumption patterns. Future research should:

- Examine shifts in behaviour post - COVID pandemic.
- Include a larger and more diverse student sample across multiple secondary tourism provinces such as gender - specific patterns.
- Incorporate longitudinal data to track behaviour over time and during different academic periods.
- Investigate the role of institutional policies in shaping food behaviours.

Additionally, future studies should explore how interventions designed to regulate students' biological rhythms, such as promoting earlier bedtimes, could influence breakfast consumption. the role of environmental factors, particularly local climate and food culture, should be further examined to understand how these contextual elements shape dietary behaviours in different regions. In summary, integrating strategies that address biological rhythms, and environmental contexts may lead to more sustainable and effective outcomes. Harris et al. (2021) found that while some programs successfully improved breakfast frequency, others did not achieve significant changes, highlighting the complexity of modifying eating behaviours through behavioural strategies alone.

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