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Application of the TAM Model on Instagram Ads

Aropria Saulina Panjaitan[1*] (ID), Janny Rowena[2], Tessa Handra[3] (ID)

[1]Master of Management, Universitas Esa Unggul, Indonesia
[2]Master of Management, Universitas Bunda Mulia, Indonesia
[3]Master of Management, Universitas Multimedia Nusantara, Indonesia
[1]ria.panjaitan@esaunggul.ac.id, [2]jrowena@bundamulia.ac.id, [3]tessa.handra@lecturer.umn.ac.id
*Corresponding Author

Article Info

ABSTRACT

Indonesia fashion industry is rapidly growing, driven by high household consumption and widespread social media use. Instagram Ads, a popular tool for digital marketing, provides targeted advertising features. **However, limited research explores** user perceptions influencing its adoption, particularly in the fashion sector. **This study investigates** factors affecting the intention to use Instagsram Ads by applying constructs from the Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB), including perceived ease of use, perceived usefulness, trustworthiness, and attitudes toward Instagram Ads. A quantitative approach was used with Partial Least Squares Structural Equation Modeling (PLS-SEM). **Data were collected from** Instagram Ads users in the fashion industry, testing nine hypotheses to assess relationships between key variables. **The results indicate** that perceived ease of use positively influences perceived usefulness (H1), trustworthiness (H2), and attitudes toward Instagram Ads (H3). Perceived usefulness impacts trustworthiness (H4), attitudes (H5), and intention to use Instagram Ads (H6). While trustworthiness affects attitudes (H7), it does not directly influence intention to use Instagram Ads (H8). Attitudes significantly determine intention to use Instagram Ads (H9). This study extends previous research by highlighting the role of ease of use and perceived usefulness in shaping user attitudes and trust. **The findings** offer practical implications for businesses looking to optimize digital marketing strategies and theoretical contributions by integrating TAM and TPB in a social media advertising context.

1.   INTRODUCTION

Indonesia economic growth is significantly influenced by household consumption, which is supported by its large population [1]. The fashion industry, as one of the key sectors contributing to household consumption, has experienced rapid development. This growth is projected to continue, presenting both opportunities and challenges for fashion entrepreneurs. To remain competitive, these entrepreneurs are increasingly leveraging digital marketing strategies, particularly through social media platforms, to promote and sell their products.

The rise of social media platforms such as Facebook, Instagram, YouTube, TikTok, and Twitter has transformed the landscape of digital marketing. Digital marketing, defined as marketing activities utilizing internet-based media including websites, social media, email, databases, mobile/wireless applications, and digital TV allows businesses to expand their reach and enhance customer engagement [2]. Compared to traditional

advertising methods, social media marketing offers a more cost-effective and efficient means of reaching target consumers. The ability to establish strong customer relationships, foster brand loyalty, and enhance product visibility has made digital marketing an essential tool in today highly competitive market [3].

Among the leading social media platforms, Instagram has emerged as a dominant force in digital marketing due to its extensive user base and interactive features. Businesses can use Instagram Ads, which offers five primary formats: Story Ads, Photo Ads, Video Ads, Carousel Ads, and Explore Ads. These features allow targeted promotions based on location, demographics, interests, and consumer behavior, providing businesses with precise advertising tools. Unlike conventional marketing methods such as billboards, brochures, and banners, Instagram Ads offer a dynamic and engaging approach to brand promotion.

The effectiveness of Instagram as a marketing tool is largely attributed to its visual driven nature, which facilitates direct consumer engagement. Online media differs from conventional media such as radio, television, and print because it provides a broader reach and fosters direct interaction between businesses and consumers. The use of images and videos plays a crucial role in influencing consumer perceptions, as visual content enhances product appeal, builds trust, and encourages purchasing decisions. Furthermore, emotional relationships established through visual marketing impact consumer attitudes and buying intentions [4].

In addition to visual influence, content on social media serves as a catalyst for electronic word-of-mouth (eWOM) marketing. Multimedia content, including images, audio, films, and text, can significantly impact consumer purchase intentions [5]. The combination of text, audio, and visuals on social media platforms enhances consumer trust and encourages product purchases. Given these insights, Instagram Ads have become a crucial tool for businesses, particularly within the fashion industry, to increase brand awareness and customer engagement [6].

Despite the increasing adoption of Instagram Ads, research on its effectiveness in the fashion industry remains limited. While previous studies have examined TAM and TPB in various digital marketing contexts, their application to Instagram Ads adoption remains underexplored [7]. This study aims to bridge this gap by analyzing key factors influencing user adoption in the fashion industry.

2. RESEARCH METHODS

2.1. Technology Acceptance Model (TAM)

The TAM serves as a foundational theory for understanding user characteristics in adopting and utilizing information systems. TAM is widely recognized for identifying the key factors that influence the acceptance and use of technology [8, 9]. This model posits that an individual's intention to use a system or technology is determined by two primary constructs: Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). In essence, technology adoption occurs when users perceive that it simplifies tasks.

TAM is underpinned by the Theory of Reasoned Action (TRA), which explains human behavior through the lens of intention. Intention, in turn, is shaped by personal attitudes and subjective norms beliefs regarding the approval or disapproval of others [10]. While TRA offers a broad explanation of human dispositions, TAM narrows its focus to describe the determinants of technology adoption across various user populations and end user computing technologies.
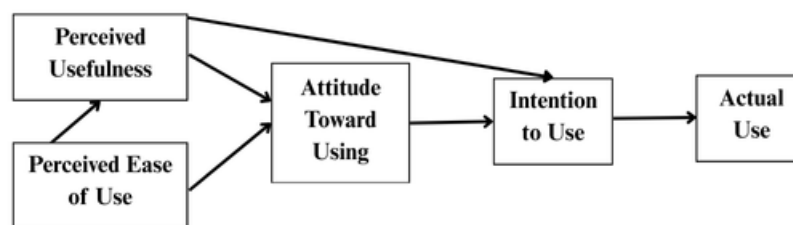

Figure 1. Technology Acceptance Model

Figure 1 illustrates the TAM framework, where PEOU directly influences PU, which then impacts attitudes toward using, leading to intention to use and eventually actual use of a technology [11].

TAM was developed to develop theories about how to use computer technology. TAM is based on the popular theory of social psychology TRA. This theory explains human nature by intention. Intention is then determined by her two structures: Personal intentions about traits or social norms, or beliefs that certain individuals or groups approve or disapprove of those traits. Whereas TRA is theorized to explain general human dispositions, TAM concretely describes common determinants of computing adoption, across a variety of end-user computing technologies and user populations. Can describe user dispositions [12].

The TAM is a model for predicting and describing how technology users will accept and use technology in the context of their work. The TAM model stems from psychological theories that explain the disposition of information technology users based on beliefs, intentions, and user behavioral relationships [13]. This theory models a person traits as a function of that traits objectives.

2.2. Theory of Planned Behavior (TPB)

This theory is predicated on the idea that people beliefs can persuade them to take particular actions. A belief perspective is created when different characteristics, qualities, and attributes of a specific piece of information are combined to influence the will to act. A conscious or unconscious choice to act in a desired manner or an incentive to do so is called an intention. The person character is first formed with this intention [14]. The theory of planned behaviour can adequately explain any behaviour that necessitates planning. The development of rational action theory is planned action theory. According to rational action theory, behavioural attitudes and subjective norms influence people intentions to carry out specific actions [15]. Ajzen included the concept of perceived or individual behavioural control a few years later. When these elements are present, the theory of planned behaviour replaces the theory of rational action [16]. The premise of the theory of planned behaviour is that people are logical creatures who make systematic use of the information at their disposal. Before choosing to adopt a particular trait, people think about the consequences of their choices. The theory of planned behaviour examines perceived behavioural control, subjective norms, and customer attitudes.

According to planned behaviour theory, attitudes toward behaviour are significant predictors of behaviour; however, one attitude should be considered to test subjective norms and gauge control over a single behaviour [17]. There is a high intention to take action when there is a positive outlook, encouragement from others, and assurance that there are no obstacles to action. People with a positive attitude about investing in stocks receive support from others. They also feel more secure and are more inclined to invest in stocks because there are no obstacles. Interests and characteristics can be predicted using the rational behaviour theory model. One own interests determine human behaviour, but behavioural interests are heavily influenced by attitudes and subjective natural norms, according to rational behaviour theory [18]. Beliefs about natural outcomes significantly influence subjective norms and attitudes. Internal and external (social environment) factors affect the interests and actions of customers. External factors are reflected in their impact on other people characteristics (subjective norms), while internal factors are reflected in an individuals attitudes. The Fishbein multi-attribute model is one of the models needed to analyze subjective attitudes and norms.

According to the theory of rational behaviour, practically every attribute depends on how well a person performs a specific action [19]. In actuality, though, there are still a lot of traits that the individual cannot completely control. Deficits can be found in various functions, such as knowledge, skills, and effective planning. For other qualities, attaining the objective may be constrained by outside factors like time or opportunity. The theory of planned action replaces the theory of rational action in the model to consider these inhibitors.

TPB, which was expanded to incorporate perceived behavioural control, is based on TRA, which was created in 1967 and offers a more thorough framework for behaviour prediction. When there are no obstacles to action, someone is in total control. On the other hand, without opportunities, resources, and skills, it is impossible to control the properties. The degree to which a person believes a trait is under control is known as perceived behavioural control [20]. Individuals are generally trustworthy and have a positive attitude but are not particularly motivated to exhibit certain characteristics unless the opportunity presents itself. A direct pathway from perceived behavioural control to desirable traits occurs when there is a match between the human perception of power and the actual control over the trait [21]. Furthermore, this theory has been constantly revised and extended. In the 1980s, it was used to study human nature and design more appropriate interventions. In 1988, behaviour control was added to the existing model of rational behaviour and became known as TPB.

Accurate predictions of customer characteristics are made by various research experts [22]. TPB is a

development of intentional behavior theory aimed at solving problems that are not fully controlled by a person with an imperfect intentional behavior theory. Aspects of perceived behavioural control, attitudes, and subjective norms are determinants of intention, even though behavioural intention is still the central component of planned behaviour theory. It is believed that perceived behavioural control influences customer behaviour prediction both directly and indirectly. The three factors of attitudes, subjective norms, and perceived behavioural control interact to determine interest and whether the behaviour in question is performed.

The predicted behavioral theory components are as follows:

- **Customer settings:** The first behavioural variable is thought to be the attitude. Attitudes are opinions, either favourable or unfavourable, about displaying particular traits. We refer to these ideas as behavioural beliefs [23]. If someone thinks well of a particular trait, they plan to display it. Personal beliefs about the repercussions of acting in a certain way (behavioural beliefs) influence attitudes, which are then weighed by the findings of outcome evaluations (result appraisals). Subjective norms and perceived behavioural control are linked to this attitude, directly impacting behaviour.

- **Subjective norms:** Subjective norms are functions of certain beliefs a person agrees or disagrees to characterize. Beliefs contained in subjective norms are known as normative beliefs. A person intends to exhibit certain traits when they recognize that their significant other thinks they should.

Fashion entrepreneurs are influenced by industry trends and peer recommendations when deciding whether to use Instagram Ads. If competitors and fellow business owners view Instagram Ads as effective, they are more likely to adopt the platform.

2.3. Advertising

Advertising is one of the marketing mixes that aims to offer a product to the public through a medium. Advertising is a means of communication, and the level of achievement can be obtained from an audience within a certain period of time. Advertising also includes every paid form of non-personal presentation and promotion of ideas, goods, or services by a known sponsor.

Meanwhile, advertising is a non-personal communication and promotion activity in the form of a product or service that has been paid for by the sponsor and has been identified through print, broadcast, network, electronic, and display media. With another interpretation, advertising is the message of a brand, product, or company which will later be transmitted to the public or audience through the media [24]. Choosing media for advertising must be done appropriately, one of which is internet media.

2.4. Instagram Ads

One of the features included in the Instagram app is Instagram advertising. Because of how helpful this feature is for businesses, it is impossible to avoid using it, especially for well-known brands. Numerous companies have utilized Instagram advertising to display their ads in this section. By liking and commenting on these ads, Instagram users can also influence the ads shown to them [25].

2.5. Perceived Ease of Use

The degree to which prospective users anticipate that a technology or system will be easy to use is known as perceived usability. In other words, users don't expect any obstacles or challenges when learning and using technology [26]. Confidence in Information Technology (IT) is another indication of PEOU significance. This emphasizes how confident people are that the technology will be implemented with little effort on the users part or in its use or application.

Some existing technologies pose an acceptable level of risk, while others do not expose users to risk. Personal perceptions of technology usability govern the acceptance and use of new technologies. Even if every software or technology developer creates many applications, the more difficult it is to use a new technology, the less desire to use it.

In connection with the issue or case raised, mobile banking users can easily learn and use the application, and they can become a community. The placement of menus and navigation is also considered so that the flow of the application is easy to understand. People who find technology easy to use will want to use it. However, people who find a technology difficult to use will not want to use it. Ease of use influences customer

interest in using mobile banking. Perceptions of ease of use influence consumer interest in using electronic payment systems [27].

2.6. Perceived Usefulness

Assumptions and statements made by users have been tested by researchers since they were put forward. This assumption is expressed with perceived utility. Furthermore, this perception states that using a system or technology can improve performance. There are several metrics that can be used as measures of perceived usefulness. For example, better performance, easier work, and feeling the benefits of it all. Technology can be viewed as an advantage, but perceptions of ease of use also provide an idea of how technology affects the depth of technology used [28, 29].

Users can receive rewards on social media apps like Facebook, Twitter, and WhatsApp. These days, mobile devices run a wide variety of applications. Users can utilize mobile media applications in two different ways. Initially, they can access the application directly using their current web browser [30]. Second, the application must first be downloaded for use. However, when sharing files and information with coworkers, users will experience a dominant influence. The purpose of this feature is to speed up work.

2.7. Trustworthiness Worthiness

Trustworthiness is defined as the belief that other parties will act responsibly and meet expectations. Trustworthiness is also an individual expectation of fulfilling obligations and willingness to accept the possibility of loss in a transaction, regardless of the ability to control the other party.

User trustworthiness in mobile banking services itself refers to trust in the context of mobile banking [31]. Trustworthiness positively influences willingness to adopt mobile banking. Customers who feel confident and secure in mobile banking are more interested in adopting mobile banking.

2.8. Attitude Toward Instagram Ads

The regular judgments, emotions, and inclinations of a person likes and dislikes toward things and concepts are known as attitudes. After evaluating an item, a customer attitude is defined as their positive and negative feelings. Attitudes are formed in proportion to the number of objects evaluated. Settings serve various purposes: knowledge, ego defence, level expression, and customization options. Customer attitudes are the responses given by advertising messages and captured by customers. Attitude to action is defined as a person positive or negative feelings when performing the action to be determined. Another meaning is how a person feels positively or negatively when evaluating the characteristics of a problem. Attitude is also a level of self-assessment over time.

Behavioural attitudes are the tendency to react to likes and dislikes about objects, people, institutions, or events. Attitudes toward behaviour are considered the first variable that influences behavioural intentions. When people appreciate an actions goodness, they have the will to do a specific action. Beliefs influence views about traits as a result of actions taken. Personal beliefs include strength beliefs and outcome assessments. Perceptions of nature are thought to directly influence behavioural intentions, which are associated with perceived behavioural control and subjective norms.

2.9. Intention to Use Instagram Ads

Online shopping intent is the propensity of a customer to purchase a brand or take action related to a purchase, as measured by the customer likelihood of shopping online. Online shopping intent is also the likelihood that a customer will buy a brand online or switch from one brand to another. The intention to shop online is a thought that arises from an interest or desire to own the goods or services desired online.

3. RESEARCH FRAMEWORK

The conceptual research model underlying this study is illustrated as follows:
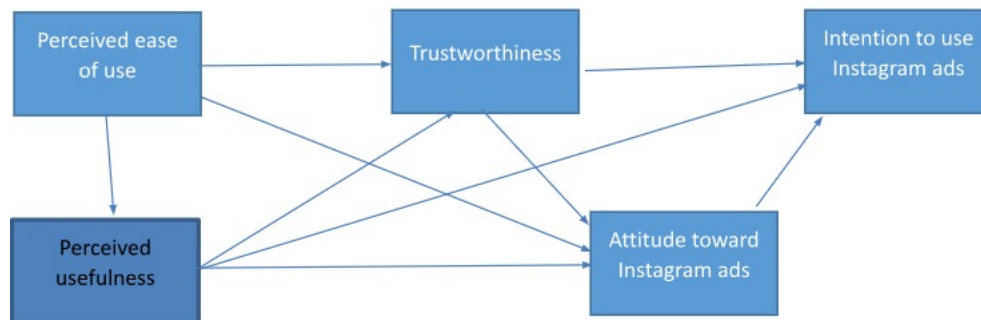
Figure 2. Research Framework

Figure 2 illustrates the relationships among key factors influencing the adoption of Instagram Ads, integrating the TAM and TPB. In this framework, PEOU and PU shape users ATT toward Instagram Ads. When businesses find Instagram Ads easy to navigate PEOU, they are more likely to perceive it as beneficial PU for their marketing efforts, leading to a more positive attitude toward using the platform. Additionally, Trustworthiness (TW) influences attitudes, as businesses need confidence in Instagram Ads as a reliable and credible advertising tool.

Following TPB, the model suggests that ATT, Subjective Norms SN, and PBC collectively determine the Behavioral Intention (BI) Instagram Ads. Attitudes reflect users' evaluations of Instagram Ads, while Subjective Norms refer to external influences such as competitors or industry trends that encourage adoption. Perceived Behavioral Control measures how confident businesses feel about successfully using Instagram Ads, considering factors like expertise and resources. The BI ultimately predicts whether businesses will actively implement Instagram Ads in their digital marketing strategies.

Hypothesis on this research are:

1. H1: There is an influence of perceived ease of use on perceived usefulness

2. H2: There is an influence of perceived ease of use on trustworthiness

3. H3: There is an influence of perceived ease of use on attitude toward Instagram ads

4. H4: There is an influence of perceived usefulness on trustworthiness

5. H5: There is an influence of perceived usefulness on attitude toward Instagram ads

6. H6: There is an influence of perceived usefulness on the intention to use Instagram ads

7. H7: There is an influence of trustworthiness on attitude toward Instagram ads

8. H8: There is an influence of trustworthiness on the intention to use Instagram ads

9. H9: There is an influence of attitude toward Instagram ads on intention to use Instagram ads

4.   RESULT AND ANALYSIS

4.1. Validity Test

The corrected convergent validity test is considered valid if the loading factor value meets or exceeds the threshold of 0.3, indicating a sufficient correlation among observed variables. Meanwhile, discriminant validity is evaluated based on the Average Variance Extracted (AVE) value, which must be greater than or equal to 0.5 to ensure construct distinctiveness. Establishing both convergent and discriminant validity confirms the reliability and accuracy of the measurement model. The results of the convergent validity testing, which provide insights into the consistency and robustness of the measured constructs, can be seen in the table 1:

Table 1. Outer Loading

	Attitude toward Instagram ads	Intention to use Instagram ads	Perceived ease of use	Perceived usefulness	Trustworthiness
AOS1	0.984				
AOS3	0.977				
AOS2	0.975				
IU1		0,992			
IU2		0,981			
IU3		0,988			
PEU1			0.974		
PEU2			0.982		
PEU3			0.981		
PU1				0.948	
PU2				0.961	
PU3				0.950	
T1					0.968
T2					0.968

The attitude toward Instagram ads statement item has the highest loading factor value (0.984) and the lowest (0.975), as indicated in Table 1. The loading factor values of 0.992 and 0.981 are the highest and lowest, respectively, for points of intention to use Instagram ads. The items in the perceived ease of use statement have the lowest loading factor value (0.974) and the highest (0.982). The items in the perceived usefulness statement have the lowest loading factor value (0.948) and the highest (0.961). Items in the trustworthiness statement have the highest and lowest loading factor values, respectively, at 0.968. The AVE value was examined following the convergent validity test to determine the discriminant validity.

Table 2. Cronbach Alpha and Average Variance Extracted (AVE)

	Cronbach Alpha	Average Variance Extracted (AVE)
Attitude toward Instagram ads	0.978	0.958
Intention to use Instagram ads	0.987	0.974
Perceived ease of use	0.978	0.958
Perceived usefulness	0.949	0.908
Trustworthiness	0.933	0.937

According to Table 2, all statement items are discriminantly valid since each variables AVE value is more significant than 0.5. The Alpha Cronbach analysis was used to test the instruments reliability. The average of each component of the coefficients, which can arise from various divisions of the scale items, is known as Cronbach alpha. The statement items for each variable are deemed reliable since, according to Table 2, the alpha Cronbach value for each variable is higher than 0.7.

Following are the results of the PLS SEM analysis in the research analysis:

Table 3. PLS SEM Hypotheses Test Summary

Hypothesis	Relationship	T Statistics	P Values
H1	Perceived ease of use → Perceived usefulness	242.891	**0.000**
H2	Perceived ease of use → Trustworthiness	11.068	**0.000**
H3	Perceived ease of use → Attitude toward Instagram ads	2.341	**0.020**
H4	Perceived usefulness → Trustworthiness	3.329	**0.001**
H5	Perceived usefulness → Attitude toward Instagram ads	3.786	**0.000**
H6	Perceived usefulness → Intention to use Instagram Ads	13.258	**0.000**

Hypothesis	Relationship	T Statistics	P Values
H7	Trustworthiness $\rightarrow$ Attitude toward Instagram ads	7.413	**0.000**
H8	Trustworthiness $\rightarrow$ Intention to use Instagram Ads	0.456	0.648
H9	Attitude toward Instagram ads $\rightarrow$ Intention to use Instagram Ads	8.619	**0.000**

Table 3 indicates that the p-value for hypothesis 1 is $0.000 < 0.05$, indicating that perceived usefulness is influenced by perceived ease of use. Hypothesis 2 p-value is $0.000 < 0.05$, indicating that perceived ease of use impacts trustworthiness. The p-value for hypothesis 3 is $0.020 < 0.05$, indicating that perceived ease of use influences attitude toward Instagram ads. Hypothesis 4 p-value is $0.001 < 0.005$, indicating that perceived usefulness impacts trustworthiness. The p-value for hypothesis 5 is $0.000 < 0.005$, indicating that attitude toward Instagram ads is influenced by perceived usefulness. The p-value for hypothesis 6 is $0.000 < 0.005$, meaning that perceived usefulness affects the intention to use Instagram ads. The p-value for hypothesis 7 is $0.000 < 0.005$, meaning that trustworthiness influences attitude toward Instagram ads. The p-value for hypothesis 8 is $0.648 > 0.005$, meaning that there is no effect of trustworthiness on the intention to use Instagram ads. The p-value for hypothesis 9 is $0.000 < 0.005$, meaning that there is an influence of attitude toward Instagram ads on the intention to use Instagram ads.

5. MANAGERIAL IMPLICATIONS

Businesses using Instagram Ads should enhance user experience with engaging, easy-to-navigate content, as ease of use influences usefulness and attitudes. Building trust through transparency and influencer endorsements boosts adoption, while interactive features like carousel ads improve engagement. Personalized content and storytelling strengthen attitudes and drive purchase intent. A data-driven approach with targeted ads maximizes ROI, and continuous performance monitoring ensures long-term effectiveness.

6. CONCLUSION

This study highlights that perceived ease of use significantly influences perceived usefulness, trustworthiness, and attitudes toward Instagram Ads. When users find the platform easy to navigate, they perceive it as more beneficial and trustworthy. Additionally, ease of use fosters positive attitudes toward using Instagram Ads, although the relationship may depend on specific contexts. Perceived usefulness emerges as a key factor impacting both trustworthiness and attitudes. Applications that help achieve marketing objectives build trust and promote favourable attitudes. Moreover, perceived usefulness directly drives users intentions to adopt Instagram Ads, emphasizing its importance in digital marketing strategies.

Trustworthiness contributes to positive attitudes, but its direct effect on intention may vary due to user familiarity with the platform and confidence in its reliability. This suggests that users prioritize ease of use and utility over trust alone when adopting Instagram Ads.

This study emphasizes the need for user friendly and goal oriented advertising tools. To increase adoption rates, businesses should focus on improving usability and demonstrating platform effectiveness. Future research could further investigate the role of trustworthiness and explore Instagram Ads adoption dynamics in various industries.

7. DECLARATIONS

7.1. About Authors

Aropria Saulina Panjaitan (AS) [ID] https://orcid.org/0009-0006-0094-1208

Janny Rowena (JR) [ID] -

Tessa Handra (TH) [ID] https://orcid.org/0009-0004-5375-708X

7.2. Author Contributions

Conceptualization: AS; Methodology: AS, JR and TH; Software: JR and TH; Validation: TH; Formal Analysis: AS, JR and TH; Investigation: AS, JR and TH; Resources: AS; Data Curation: TH; Writing Original Draft Preparation: DY and AS; Writing Review and Editing: AS, JR and TH; Visualization: JR; All authors, AS, JR and TH, have read and agreed to the published version of the manuscript.

7.3. Data Availability Statement

The data presented in this study are available on request from the corresponding author.

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7.5. Declaration of Conflicting Interest

The authors declare that they have no conflicts of interest, known competing financial interests, or personal relationships that could have influenced the work reported in this paper.

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