
THE MEDIATION EFFECT OF HUNGER MARKETING BETWEEN BRAND IMPRESSION, MEDIA PROMOTION, SCARCITY AND IMPULSE BUYING BEHAVIOUR: SPECIAL REFERENCE TO ONLINE SHOPPERS IN BATTICALOA DISTRICT

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ABSTRACT

Online shoppers play a crucial role in the success of modern businesses. Impulse buying behaviour and hunger marketing are emerging mechanisms that enhance business sustainability and profitability. This study examines the impact of brand impression, media promotion, and scarcity on impulse buying behaviour, with hunger marketing as a mediating factor among online shoppers in Batticaloa District, Sri Lanka. A quantitative research approach was adopted, collecting data from 384 online shoppers, specifically doctors, nurses, and teachers, through structured questionnaires. The data were analyzed using SPSS 25.0, applying univariate, bivariate, and multivariate (mediation) analyses.

The findings reveal that brand impression, media promotion, and scarcity significantly influence impulse buying behaviour. Brand impression enhances consumer perceptions, media promotion increases awareness and interest, and scarcity creates urgency, leading to spontaneous purchases. Hunger marketing acts as a partial mediator, amplifying the impact of these factors. Notably, scarcity proves to be the most effective strategy in driving impulse buying among online shoppers. These insights offer valuable guidance for marketers, emphasizing the importance of strategic brand positioning, impactful media campaigns, and controlled scarcity techniques to enhance consumer engagement and sales. Furthermore, the study highlights the significance of leveraging data-driven marketing strategies to better understand consumer behaviour and optimize promotional efforts. By applying these findings, businesses can develop more effective, targeted approaches to influence purchasing behaviours. Future research could explore additional psychological and demographic factors influencing impulse buying across different consumer segments.

Keywords: *Impulse buying behaviour, brand impression, media promotion, scarcity, and hunger marketing.*

INTRODUCTION

The rapid advancement of technology has transformed business operations, with the internet becoming a dominant alternative to traditional retail. Online business, defined as conducting commercial activities via the internet and digital tools, has emerged as a vital platform for modern commerce. It enables interactions among businesses, employees, suppliers, collaborators, and customers, fostering value creation in a dynamic marketplace (Madininos et al., 2014). Online shopping offers consumers unmatched convenience and accessibility, allowing businesses to reach global audiences. With the growth of e-commerce, companies leverage digital marketing, personalized recommendations, and data analytics to boost sales and customer engagement. The rise of social media, mobile commerce, and emerging technologies such as AI has further reshaped consumer behaviour, positioning online shopping as a key driver of modern business success (Cheema & Papatla, 2010).

A major component of online consumer behaviour is impulse buying, unplanned purchases made spontaneously due to excitement or desire (Zhang et al., 2022). This behaviour is usually triggered by immediate stimuli and is linked to emotions such as pleasure and urgency. Studies show that over 50% of purchases result from impulse buying (Liu et al., 2013), which is more prevalent online due to reduced purchase restrictions in anonymous digital environments (Wu, 2020; Amos et al., 2014). Several factors influence online impulse buying, with brand impression being a significant one. A positive brand impression enhances consumer confidence, reduces perceived risk, and builds trust, encouraging unplanned purchases. Brands that evoke positive emotions and offer familiarity drive quicker decisions, especially in fast-paced online settings (Hausman, 2000).

Media promotions also play a vital role. Discounts, loyalty programs, and limited-time deals (e.g., “Today only,” “Gone Tomorrow”) generate urgency and fear of missing out, prompting impulsive purchases (Nagadeepa et al., 2015; Lo, 2021). Product scarcity further affects consumers' ability to assess options and fuels desire, often before decision-making begins (Hamilton, 2019). Sellers use hunger marketing to create an illusion of scarcity, triggering emotional responses and impulsive buying (Zhang et al., 2022; Zhao & Xu, 2021). These tactics are particularly effective online, where limited availability heightens urgency (Lo, 2021). Understanding these factors is crucial for businesses aiming to refine digital marketing and increase engagement in online retail.

PROBLEM STATEMENT

Even there is more of the strategies to develop the online businesses still because of the rapid expansion of online businesses in the Batticaloa District has intensified competition, making it difficult for businesses to sustain growth and attract customers, and also online entrepreneurs face challenges in identifying their target audience, implementing effective marketing strategies, leveraging new technologies, and understanding consumer psychology to drive sales (Zhang et al., 2022). Offline businesses face several drawbacks compared to online businesses, including limited reach, higher operating costs, and restricted hours of operation. While offline businesses are confined to a specific geographical area and traditional working hours, online businesses can cater to a global customer base 24/7, significantly broadening their market potential. Additionally, online businesses can offer a wider product range, gather valuable customer data for personalized experiences, and operate with lower

overhead costs. These advantages make online businesses more competitive and efficient, especially in today's fast-paced, convenience-driven market (Ta et al., 2024).

The increasing adoption of e-commerce, with global online shoppers exceeding 1.92 billion in 2019 (Iimedia, 2021), highlights the importance of innovative marketing strategies to ensure business sustainability. Hunger marketing and impulse buying behaviour are crucial in addressing these challenges. While impulse buying behaviour has been widely studied, most research focuses on influencing factors such as trust, perceived value, and social media promotions (Lo, 2021; Chen et al., 2014; Wu, 2020). However, limited studies explore the impact of hunger marketing on impulse buying behaviour (Zhang et al., 2022). Additionally, there is a lack of research on the simultaneous effect of hunger marketing stimuli scarcity, brand impression, and media promotion on impulse buying behaviour. It is worthy of investigation an empirical study is important because today online businesses are rapidly increasing. If they want to survive in the competitive world they want to understand the mechanism of new technologies and marketing tactics (Moe, 2003). However, to maintain the sustainable growth of the online business the hunger marketing strategy and impulse buying behaviour of consumers become a hot topic want to study. Finally, this research provides more clarification and ideas about these two topics in the context of online shopping. And supports platforms and online businesses in changing their innovation strategy to achieve sustainable growth (Zhang et al., 2022).

RESEARCH QUESTIONS

1. What is the current status of brand impression, media promotion, scarcity, impulse buying behaviour and hunger marketing?
2. What is the Relationship between (I) brand impression and impulse buying behaviour, (ii) media promotion and impulse buying behaviour, (iii) scarcity and impulse buying behaviour, (iv) hunger marketing and impulse buying behaviour, (v) brand impression and hunger marketing, (vi) media promotion and hunger marketing, and (vii) scarcity and hunger marketing?
3. Whether the hunger marketing mediates the relationship between (I) brand impression and impulse buying behaviour, (ii) media promotion and impulse buying behaviour, and (iii) scarcity and impulse buying behaviour?

RESEARCH OBJECTIVES

1. To examine the current status of brand impression, media promotion, scarcity, impulse buying behaviour and hunger marketing.

2. To investigate the Relationship between (i) brand impression and impulse buying behaviour, (ii) media promotion and impulse buying behaviour, (iii) scarcity and impulse buying behaviour, (iv) hunger marketing and impulse buying behaviour, (v) brand impression and hunger marketing, (vi) media promotion and hunger marketing, and (vii) scarcity and hunger marketing.
3. To investigate whether the hunger marketing mediates the relationship between (i) brand impression and impulse buying behaviour, (ii) media promotion and impulse buying behaviour, and (iii) scarcity and impulse buying behaviour.

LITERATURE REVIEW

Impulse buying behaviour

Impulse buying behaviour refers to an irresistible urge to make spontaneous purchases, often causing psychological imbalance in consumers (Sharma et al., 2010). It is influenced by various factors, including store environment, product display, emotional state, impulsiveness, lack of self-control, time availability, and purchasing power (Habib & Qayyum, 2018; Lin et al., 2018). The rise of online shopping has intensified unplanned purchases, driven by both utilitarian and hedonic browsing (Jones & Kim, 2010; Gohary & Hanzae, 2014). Research indicates that 90% of consumers buy impulsively, with 30% to 50% classified as impulsive shoppers (Hausman, 2000). Consumers are increasingly likely to make impulse purchases through various internet platforms (Wu et al., 2020). Urgency and scarcity significantly trigger impulse buying by creating fear of missing out and limited availability, pressuring consumers into quick decisions. Time-limited offers or low stock levels increase perceived value and urgency, prompting spontaneous purchases. These psychological triggers exploit emotions, hinder rational decision-making, and heighten impulsive buying tendencies (Feng et al., 2020).

Brand impression

Brand impression is the consumer's perception and recognition of a brand, shaped by marketing efforts and experiences (Keller, 2013). It significantly influences purchasing decisions, as a strong, positive brand impression builds trust, credibility, and emotional connection (Aaker, 1997). In today's digital era, with consumers exposed to many brands online, brand impression's importance has increased (Kotler & Keller, 2016). Several factors affect brand impression in online shopping, including visual aesthetics, brand messaging, online reviews, and social media presence (Schivinski & Dabrowski, 2016). A well-designed, attractive website enhances consumer trust and engagement, leading to a favorable impression (Wells et al., 2011). Positive brand perception makes consumers more likely to make spontaneous purchases, especially when influenced by promotional tactics like limited-time offers or exclusive deals (Peck & Childers, 2006).

Media promotion

Promotional activity attracts new listeners and viewers by encouraging engagement with programs (Eastman et al., 2012). Tactics include direct marketing, personal selling, public relations, advertising, and sales promotion (Munusamy & Wong, 2008). Media promotion involves strategically sharing marketing messages across digital and traditional platforms to attract, engage, and retain customers

(Kotler & Keller, 2016). It enhances brand awareness, builds customer relationships, and influences purchasing decisions (Grewal et al., 2019). Digital media promotion has transformed marketing by enabling personalized, targeted ads that impact consumer behaviour (Belanche et al., 2020). Media promotion shapes perceptions, creates urgency, and drives engagement (Dwivedi et al., 2021). Social media promotions especially stimulate impulse buying through interactive content, time-limited offers, and peer influence (Zhang et al., 2020). This persuasive approach boosts product value perception and encourages unplanned purchases (Verhagen & van Dolen, 2018).

Scarcity

Scarcity is a fundamental principle in marketing that influences consumer decision-making by creating a perception of limited availability, which enhances desirability and urgency (Cialdini, 2001). Scarcity can be categorized into two primary types: quantity-based scarcity (limited stock) and time-based scarcity (limited-time offers), both of which can significantly impact consumer purchasing behaviour (Lynn, 1989). Research suggests that when consumers perceive a product as scarce, they tend to value it more, leading to heightened purchase intentions and impulsive buying behaviour (Verhallen, 1982). Studies in online retail environments indicate that scarcity-driven marketing tactics, such as flash sales and countdown timers, enhance consumer urgency, ultimately increasing impulse buying tendencies (Wu et al., 2020).

Hunger marketing

A hunger marketing approach is a form of aggregation advertising that mostly takes the form of artificially low price controls and supply restrictions (Feng et al., 2020). Hunger marketing is a marketing strategy that mainly targets the emotions of people. One common marketing tactic that makes advantage of the scarcity concept is hunger marketing. Product sellers use hunger marketing to purposefully limit the supply of their products to influence clients and generate excessive demand (Chen et al., 2014). People will want to buy these things as a result of product supply restrictions. The basic goals of the hunger marketing strategy are to make a product popular, induce customers to buy desirable goods, and maintain the product's reputation while the manufacturer reduces production to regulate supply and demand, creates the appearance of supply and demand, and maintains the product's the higher sale price and profitability during the marketing campaign (Munro et al., 2019). Hunger marketing stimulates people's curiosity and motivates businesses to attract more prospective customers. Customers' lack of products increases the perceived value of the commodity and encourages its creative use. Early on, dealers who were marketing goods were altering the number of commodities that were in low supply in order to encourage customers to buy more things (Parker & Lehmann, 2011).

HYPOTHESES DEVELOPMENT

Brand impression refers to consumers' overall perception and recognition of a brand, significantly influencing purchasing decisions (Keller, 2001). Strong brand impressions create emotional connections that increase impulse purchases (Giroux et al., 2010). Sung & Kim (2010) found consumers with positive brand impressions are more likely to make impulse purchases. Well-known and familiar brands foster purchasing intentions by aiding product category identification and decision-making (Macdonald & Sharp, 2000). Chandon et al. (2000) suggest brands with strong

visibility and reputation trigger spontaneous buying through consumer trust and familiarity. Thus, brand impression positively relates to impulse buying behaviour

H₁: There is a positive relationship between brand impression and impulse buying behaviour.

Media promotion, via social media ads, influencer marketing, and digital campaigns is a key driver of impulse purchases (Laksamana & Hidayat, 2019). Wu et al. (2021) assert that digital marketing creates persuasive ads that stimulate urgency and desire. Lo (2021) notes that banner ads and online promotions attract attention, stimulating impulse purchase intentions, especially for limited products. Media promotion triggers emotional and cognitive responses leading to impulse buying (Chen et al., 2019), showing a strong positive relationship.

H₂: There is a positive relationship between media promotion and impulse buying behaviour.

Scarcity, a well-known psychological trigger, creates a sense of urgency among consumers, leading to increased impulse purchases (Moser et al., 2019). Research by Aggarwal et al. (2011) highlights that limited-stock or time-sensitive promotions significantly affect consumer decision-making by enhancing perceived value and desirability. Furthermore, studies by Cook and Yurchisin (2017) confirm that scarcity messages in e-commerce platforms drive immediate buying actions due to fear of missing out (FOMO). The scarcity of products on shelves has a positive and significant relationship with impulse buying behaviour (Ahmed et al., 2020). Thus, scarcity is positively associated with impulse buying behaviour.

H₃: There is a positive relationship between scarcity and impulse buying behaviour.

Hunger marketing is a strategic approach that deliberately limits product availability to generate high consumer demand. Hunger marketing has been a great success in many marketing situations (Tain & Chen, 2016). This technique increases impulse buying behaviour by amplifying product desirability and urgency. In the Hunger marketing model, especially feel the urge to buy because of time constraints under the constraints of a sense of opportunity cost, which creates a positive perception of a product's value and potential impulse buying behaviour is strong. Yuanchin Chen et al (2014), identified there is a positive significant relationship between hunger marketing and impulse buying behaviour. Zhang et al (2022), identified hunger marketing mode under the e-commerce platform, in order to induce consumer impulse buying behaviour, and there is a positive relationship between online impulse buying behaviour and hunger marketing. Therefore, hunger marketing positively influences impulse buying behaviour.

H₄: There is a positive relationship between hunger marketing and impulse buying behaviour.

Brand impression plays a critical role in hunger marketing effectiveness. A strong, well-established brand can leverage hunger marketing tactics more successfully (Kotler & Keller, 2016). According to Lo (2021), customers' perception of the brand plays a significant role in their decision-making process. Consumers are more likely to purchase restricted products from brands they trust and recognize. Therefore, it is crucial to consider customers' perception of the brand when executing a hunger

marketing campaign. A deeper brand impression leads to increased sales, as customers are more likely to consider the brand when a need arises.

H₅: There is a positive relationship between brand impression and hunger marketing.

Media promotion enhances hunger marketing strategies by increasing consumer awareness and perceived scarcity. Customers who have a limited amount of time to shop are under pressure, and they will consider and choose their purchasing activities based on their immediate emotions. Therefore, the temporal effect of sales will cause customers to feel emotional pressure, which will motivate and excite their psychology, boosting their likelihood of making a purchase (Kapoor & Banerjee, 2021). In limited-time promotions, indicating that anticipatory regret was a stronger force than curiosity or enthusiasm (Kaleigh Moore, 2020). Studies show that digital platforms amplify hunger marketing effects by creating hype around limited-availability products (Kim et al., 2019). Additionally, social media promotions often reinforce the urgency of purchasing, leading to higher engagement with hunger marketing campaigns. Therefore, a positive relationship exists between media promotion and hunger marketing.

H₆: There is a positive relationship between media promotion and hunger marketing.

Scarcity and hunger marketing are closely related concepts that significantly influence consumer demand (Lynn, 1991). Park & Lehmann (2011) found that perceived scarcity enhances hunger marketing effects by making products more appealing. In Sri Lanka, the economic crisis led to restricted access to goods, making scarcity a daily reality and a core component of hunger marketing. Scarcity increased consumers' fear of missing out, prompting quicker purchases (Lo, 2021). As a result, long queues formed for limited products (Press, 2022). These instances confirm a strong positive relationship between scarcity and hunger marketing, where one reinforces the effectiveness of the other.

H₇: There is a positive relationship between scarcity and hunger marketing.

Hunger marketing acts as a mediator between various marketing factors and impulse buying behaviour. A study by Zhang et al. (2022) found that hunger marketing significantly mediates the impact of brand impression on impulse purchases by intensifying consumers' urgency. Another study by Xie et al (2016), found that hunger marketing was an effective strategy for enhancing the perceived value of a product, which in turn increased consumers' willingness to pay a premium price and engage in impulse buying behaviour. The study also found that hunger marketing had a stronger effect on impulse buying behaviour among consumers with a positive brand impression than those with a negative impression. Hunger marketing is a powerful strategy that can mediate the relationship between brand impression and impulse buying behaviour. Similarly, research by Xu et al. (2020) suggests that hunger marketing enhances the effect of media promotions on impulsive buying tendencies. Another study by Wang and Yang (2021), also found that hunger marketing can significantly increase impulse buying behaviour, especially when consumers perceive the product as scarce. Furthermore, Zhang and Turner (2022), find out restricted amount of products will be favorably associated with the customer making impulse decisions. Lim and Dubinsky (2005), found that consumers who experienced a sense of urgency due to scarcity were more likely to engage in impulse buying behaviour when exposed to hunger marketing tactics. Similarly, Brock et al (2017), found that consumers who were exposed to a scarcity message

were more likely to engage in impulse buying behaviour when the product was marketed using hunger marketing tactics. These findings support hunger marketing's mediating role in brand impression, media promotion, scarcity, and impulse buying behaviour.

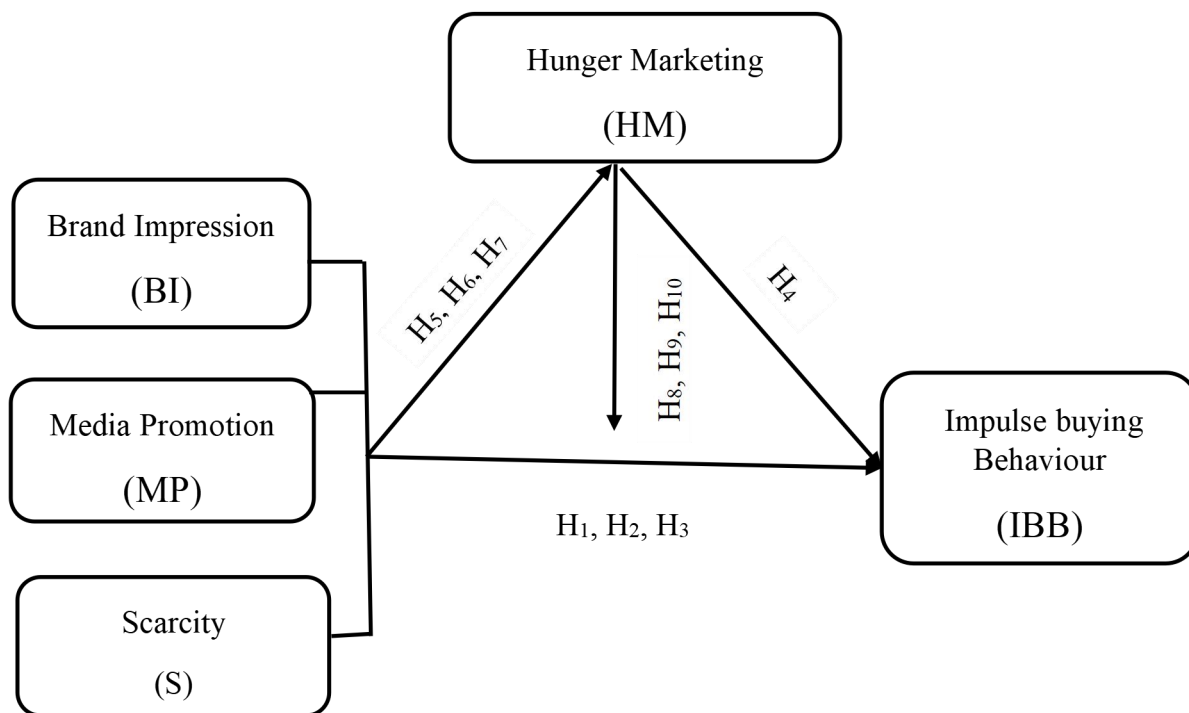
H₈: Hunger marketing mediates the relationship between brand impression and impulse buying behaviour.

H₉: Hunger marketing mediates the relationship between media promotion and impulse buying behaviour.

H₁₀: Hunger marketing mediates the relationship between scarcity and impulse buying behaviour.

CONCEPTUAL MODEL

Figure 1. Conceptual Framework of the this study



Source: (Luo et al., (as cited in Lo, 2021); Zhang et al., 2022)

THEORETICAL SUPPORT FOR THE CONCEPTUAL MODEL

Theory of Stimuli-Organism-Response (SOR)

The Stimulus-Organism-Response (S-O-R) Model, introduced by Mehrabian and Russell (1974), explains how environmental stimuli (S) affect individuals' cognitive and emotional states (Organism - O), leading to behavioural responses (R). This model is widely used in consumer behaviour research to understand shopping behaviour in physical and online retail. Eroglu et al. (2001) applied it to online retail, showing that shopper involvement and responsiveness mediate between stimuli and shopping outcomes. Koo and Ju (2010) found that online environmental cues, especially web aesthetics, influence consumers' emotions and purchase intentions.

With e-commerce growth, the S-O-R model has been adapted to study online shopping. Chen and Yao (2018) showed that internal motivations affect shopping satisfaction, varying by task relevance and engagement. O'Brien (2010) identified hedonic and utilitarian values as key drivers of consumer engagement and purchase intent. Research confirms that environmental cues, internal motivations, and emotions strongly impact purchase decisions, site revisits, and satisfaction. Future research could explore how AI personalization and virtual reality influence consumer behaviour within the S-O-R framework.

METHODOLOGY

This study uses a quantitative approach to test hypotheses on the mediating effect of hunger marketing between brand impression, media promotion, scarcity, and impulse buying behaviour, focusing on online shoppers in Batticaloa District. Batticaloa was chosen due to limited research on these topics in developing countries like Sri Lanka, as most prior studies focused on Western contexts (Zhang et al., 2022; Lo, 2020). The study targets public sector welfare professionals, medical doctors, nurses, and teachers, considered knowledgeable and financially stable (Mastekaasa, 2011; Lo, 2021).

The total population of these professionals is 7,835. Due to the unknown number of online shoppers among them, convenient sampling was used to achieve the study objectives, with each customer as a unit of analysis. The final sample size was 384 respondents. Secondary data were gathered from journals, published papers, and relevant websites. Primary data were collected via a structured English questionnaire with 22 close-ended items adapted from previous studies, rated on a five-point Likert scale. Out of 400 distributed questionnaires, 384 were valid.

Survey items measuring Impulse Buying Behaviour (5 items) were adopted from Zhang et al. (2022), while Brand Impression (4 items), Media Promotion (5 items), Scarcity (5 items), and Hunger Marketing (3 items) items were adopted from Lo (2021). Data analysis involved univariate, bivariate, and multivariate techniques, including descriptive statistics, correlation, regression, and mediation analysis. Multiple mediation hypotheses were tested using SPSS PROCESS macro with bootstrapping to calculate direct, indirect, and total effects. SPSS Version 25.0 ensured accurate and efficient data processing.

FINDINGS AND DISCUSSION

Reliability analysis

Table 1 shows that the Cronbach Alpha for the factors was acceptable at a level of 0.7 or above. Therefore, all items which are considered in this study are to be reliable, which suggests that the internal reliability of the instrument for satisfactory (Hair et al., 2010). This study has used already tested and validated questionnaires to achieve its objectives.

Table 1: Reliability and Validity Analysis for Overall Variables

Variable	Cronbach's Alpha Value	No. of question Items	Comments
Brand Impression	0.745	03	Accepted
Media Promotion	0.740	05	Accepted
Scarcity	0.737	03	Accepted
Hunger Marketing	0.773	05	Accepted
Impulse Buying Behaviour	0.723	03	Accepted

(Source: Survey Data)

Table 1 shows the Reliability and Validity of the Study. Reliability was measured using Cronbach's Alpha (Alpha values > 0.7) and composite reliability (values > 0.7). Average Variance Extracted (AVE) (values ≥ 0.5) was used to measure the convergent validity. All the instruments had Cronbach's Alpha values above 0.70. Hence, the instruments had good reliability.

Survey demographics

Table 2 presents the demographic profile of 384 respondents. Females make up 53.6% of online shoppers, slightly outnumbering males at 46.4%, which is useful information for businesses targeting consumers in Batticaloa. Age-wise, respondents fall into three groups: under 30 years (22.7%), 30 to 50 years (60.4%), and over 50 years (19.9%). The majority are aged 30 to 50, indicating most online shoppers are working adults with greater financial responsibilities influencing their buying behaviour. Educational qualifications vary: no respondents have only Ordinary Level qualifications. Instead, 21.1% hold Advanced Levels, 53.6% are graduates, 17.4% postgraduates, and 7.8% have other professional or academic certifications such as diplomas, HNDA, AAT, or CMA. This shows that most online shoppers are well-educated, with over half holding university degrees.

Occupationally, teachers dominate with 83.6% of respondents, followed by nurses at 11.5%, and doctors at 4.9%, reflecting the welfare worker groups targeted in the Batticaloa district. Monthly income divides into three groups: 40.6% earn less than Rs. 60,000, 44.8% earn between Rs. 60,000 and Rs. 100,000, and 14.6% earn above Rs. 100,000. Nearly half belong to the middle-income bracket, while a smaller but significant portion are high-income earners. Regarding monthly online spending, 55.5% spend less than Rs. 3,000, indicating cautious or limited spending despite a growing online

market. Meanwhile, 24.5% spend over Rs. 8,000, showing demand for high-value purchases, and 20.1% spend between Rs. 3,000 and Rs. 8,000, representing a potential growth segment. These insights help businesses tailor marketing strategies to different spending groups in Batticaloa.

Table 2: Demographic Profile of the Respondents

Demographic Factor	Classification	Number of respondents	Percent (%)
Gender	Male	178	46.4%
	Female	206	53.6%
Age	Less than 30 Years	87	22.7%
	30 to 50 Years	232	60.4%
	50 + Years	65	19.9%
Educational qualifications	O/L	-	-
	A/L	81	21.1%
	Graduates	206	53.6%
	Post Graduates	67	17.4%
	Others	30	7.8%
Occupation	Teacher	321	83.6%
	Doctor	19	4.9%
	Nurse	44	11.5%
Monthly income	Less than RS 60000	156	40.6%
	RS 60000 to 100000	172	44.8%
	RS 100000+	56	14.6%
Online consumption per Month	Less than RS 3000	213	55.5%

	RS 3000 to 8000	77	20.1%
	RS 8000+	94	24.5%

(Source: Survey Data)

Univariate analysis

To examine the current status of Brand Impression, Media Promotion, Scarcity, Impulse Buying Behaviour, and Hunger Marketing

This study used univariate analysis to achieve the first objective of this study. In this study mean was used to measure the central tendency while dispersion is described by using standard deviation. Under the univariate analysis researcher used descriptive statistics. For this analysis mean values and standard deviation of the variables were taken into consideration in order to find out the current status of the variables.

Table 3: Descriptive Statistics for the variables

Variable/ Dimensions	Mean	Std. Deviation
Brand Impression	3.94	0.588
Media Promotion	3.98	0.464
Scarcity	3.94	0.511
Hunger Marketing	4.10	0.516
Impulse Buying Behaviour	4.06	0.476

(Source: Survey Data)

The univariate analysis for the first objective examines five key variables: brand impression, media promotion, scarcity, hunger marketing, and impulse buying behaviour. The results show that brand impression has a mean score of 3.94 with a standard deviation of 0.588, indicating that respondents generally hold a positive view of the brand. The low deviation suggests consistent opinions among participants. Since the mean falls within the $3.40 < X_i \leq 4.20$ range, brand impression significantly contributes to the study.

Media promotion records a mean of 3.98 and a standard deviation of 0.464, highlighting strong promotional efforts by online suppliers in Batticaloa. The high mean confirms media promotion's effectiveness in influencing consumer behaviour and its important role in driving online shopping engagement. Scarcity also shows a notable impact with a mean score of 3.94 and a standard deviation of 0.511, indicating that limited product availability influences consumer perceptions. The relatively low deviation reveals agreement among respondents, reinforcing scarcity as a key factor affecting purchase decisions.

Hunger marketing, the mediating variable, has the highest mean score of 4.10 with a standard deviation of 0.516. This suggests that strategies creating urgency and exclusivity strongly shape consumer purchasing decisions. While some variation exists in responses, hunger marketing is widely perceived as a major influence, supporting its mediating role. Finally, impulse buying behaviour, the dependent variable, shows a mean of 4.06 and a standard deviation of 0.476. This indicates that respondents often engage in impulse purchases influenced by marketing tactics. Though some variation exists, the mean's position within the high range confirms impulse buying as a critical factor. The overall univariate analysis reveals that all variables strongly contribute to consumer behaviour, with hunger marketing and impulse buying ranking highest. These findings highlight how brand perception, promotional strategies, scarcity, and hunger marketing collectively shape impulse purchasing tendencies among online shoppers in Batticaloa District.

Correlation analysis

To investigate the Relationship between (i) Brand Impression and Impulse Buying Behaviour, (ii) Media Promotion and Impulse Buying Behaviour, (iii) Scarcity and Impulse Buying Behaviour, (iv) Hunger Marketing and Impulse Buying Behaviour, (v) Brand Impression and Hunger Marketing, (vi) Media Promotion and Hunger Marketing, and (vii) Scarcity and Hunger Marketing

Correlation analysis is used to measure the relationship. Pearson's correlation analysis explains strength and significance of the bivariate relationships among all the variables were measured. Pearson's correlation analysis was used to determine the nature (direct or inverse) and the degree of association between two or more variables in this study. Rules thumb about correlation coefficient, correlation range 0.1 to 0.29 weak positive relationships range 0.3 to 0.49 moderate positive relationships and range 0.5 to 1 strong positive relationship and correlation range - 0.1 to -0.29 weak negative relationship, range - 0.3 to -0.49 moderate negative relationships and range - 0.5 to -1 strong negative relationship.

Table 4: Correlation Analysis between the Independent Variables and Dependent Variable

Relationships	Correlation of coefficient	Sig. Value
Brand Impression and Impulse buying behavior.	0.797	0.000
Media Promotion and Impulse buying behavior.	0.568	0.000
Scarcity and Impulse buying behavior.	0.612	0.000
Hunger Marketing and Impulse buying behavior.	0.865	0.000
Brand Impression and Hunger Marketing.	0.587	0.000
Media Promotion and Hunger Marketing.	0.381	0.000

Scarcity and Hunger Marketing.	0.432	0.000
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(Source: Survey Data)

Pearson's correlation analysis shows positive and significant relationships (at the 0.01 level) between the independent variables, Brand Impression, Media Promotion, Scarcity, and Hunger Marketing and the dependent variable, Impulse Buying Behaviour. The correlation coefficients with impulse buying are strong: Brand Impression (0.797), Media Promotion (0.568), Scarcity (0.612), and Hunger Marketing (0.885), with Hunger Marketing having the highest correlation. The correlation between Brand Impression and Hunger Marketing is 0.587, while Media Promotion and Scarcity correlate with Hunger Marketing at 0.381 and 0.432, respectively.

These results indicate that consumers with a strong brand impression and exposure to media promotions are more prone to impulse buying. Scarcity and hunger marketing significantly influence impulse purchases, with hunger marketing being the most impactful. Additionally, media promotion and scarcity notably affect hunger marketing, highlighting their role in shaping consumer perceptions. Based on this analysis, the first seven hypotheses were accepted, confirming that these marketing strategies strongly relate to consumer impulse buying behaviour.

Mediation Analysis

To investigate whether Hunger Marketing mediates the relationship between (i) Brand Impression and Impulse Buying Behaviour, (ii) Media Promotion and Impulse Buying Behaviour, and (iii) Scarcity and Impulse Buying Behaviour

Mediation analysis is used to identify whether hunger marketing mediates the relationship between (i) brand impression and impulse buying behaviour, (ii) media promotion and impulse buying behaviour, and (iii) scarcity and impulse buying behaviour. The bootstrapping method (10,000) was implemented in analyses to obtain 95% confidence intervals for statistical inferences about specific and total indirect effects. The result of the mediation analysis is presented in Table 4.

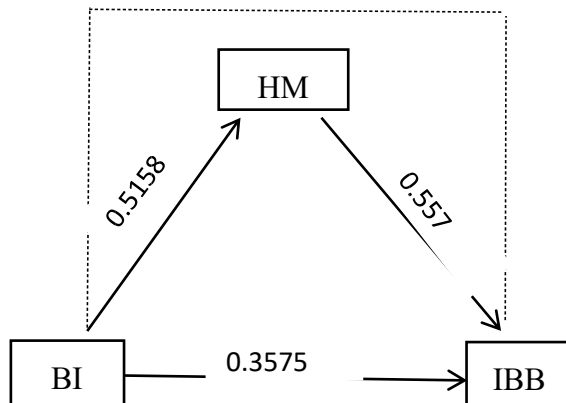
Table 5: Hunger Marketing mediates the relationship between Brand Impression and Impulse Buying Behaviour

Impacts	B	Se Value	Std. Beta	R ²	A. R ²	Sig. Value
Brand Impression on Hunger Marketing.	0.516	0.036	0.5872	0.345	0.343	.000 ^b
Brand Impression on Impulse Buying Behaviour.	0.357	0.018	0.442	0.876	0.874	.000 ^b

Hunger Marketing on Impulse Buying Behaviour.	0.557	0.205	0.605			
Indirect and Total effects				0.2876	0.6451	

(Source: Survey Data)

Figure 2. A mediation model with hunger marketing as proposed mediator of brand impression and impulse buying behaviour



$$\text{Percentage of the effect being mediated} = \frac{\text{Indirect}}{\text{Total}} = \frac{0.2876}{0.6451} = 0.4458$$

So 44.58%

As shown, the results suggest that there is a significant relationship between brand impression, hunger marketing, and impulse buying behaviour. Specifically, the results show that both brand impression and hunger marketing are significant predictors of impulse buying behaviour, (Brand Impression, $B=0.3575$, $SE=0.018$, 95%, $\beta = 0.4418$, $p < .001$ and hunger marketing, $B=0.5577$, $SE=.0205$, 95%, $\beta = 0.6055$, $p < .001$). Additionally, the brand impression is a significant predictor of hunger marketing, indicating that consumers' perception of a brand can influence their level of hunger marketing, $B=0.5158$, $SE=0.0364$, 95%, $\beta = 0.5872$, $p < .001$. Furthermore, the study found that hunger marketing partially mediates the relationship between brand impression and impulse buying behaviour. This means that hunger marketing explains a portion of the relationship between brand impression and impulse buying behaviour. More precisely, 44.58% of the effect of brand impression on impulse buying behaviour is mediated through hunger marketing, and the remaining 55.42% is direct.

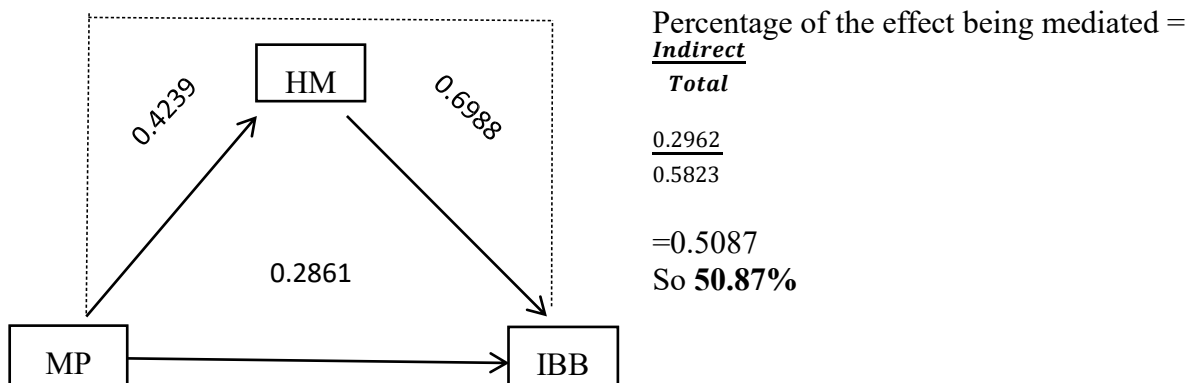
Table 6: Hunger Marketing mediates the relationship between Media Promotion and Impulse Buying Behaviour

Impacts	B	Se Value	Std. Beta	R2	A. R2	Sig. Value
Media Promotion on Hunger Marketing.	0.423	0.052	0.381	0.145	0.143	.000 ^b
Media Promotion on Impulse Buying Behaviour	0.286	0.025	0.279	0.814	0.813	.000 ^b

Hunger Marketing on Impulse Buying Behaviour	0.698	0.022	0.759		
Indirect and Total effects				0.2962	0.5823

(Source: Survey Data)

Figure 3. A mediation model with hunger marketing as proposed mediator of media promotion and impulse buying behaviour



Based on the mediation analysis conducted in Table 5 indicate that hunger marketing mediates the relationship between media promotion and impulse buying behaviour. Specifically, the results show that media promotion has a significant positive effect on hunger marketing, $B=0.4239$, $SE=0.0527$, 95%, $\beta = 0.3806$, $p < .001$, and both media promotion and hunger marketing have a significant positive effect on impulse buying behaviour, (Media Promotion, $B=0.2861$, $SE=0.0245$, 95%, $\beta = 0.2789$, $p < .001$ and hunger marketing, $B=0.6988$, $SE=.0220$, 95%, $\beta = 0.7587$, $p < .001$). The findings suggest that hunger marketing explains part of the effect of media promotion on impulse buying behaviour, with 50.87% of the effect being mediated through hunger marketing, and 50.87% being direct. Overall, the findings of this study suggest that hunger marketing plays an important role in explaining why media promotion leads to impulse buying behaviour. By understanding the mechanisms that underlie these relationships, marketers, and retailers can develop more effective strategies to increase sales and boost consumer engagement.

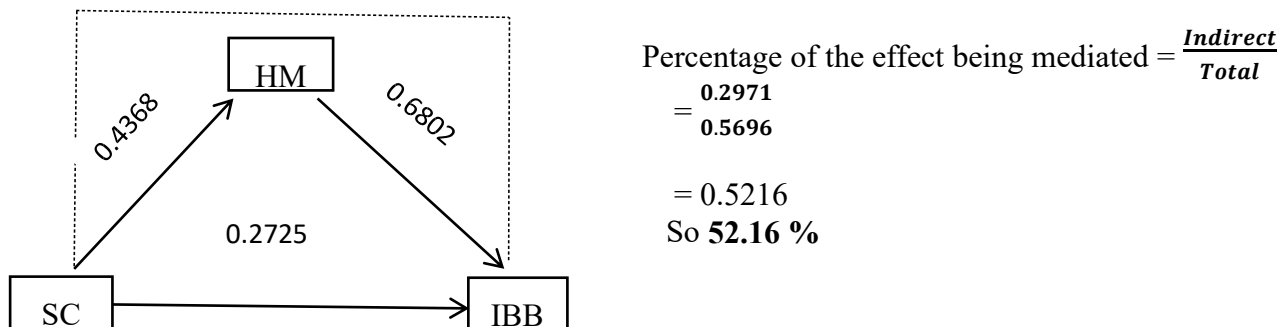
Table 7: Hunger Marketing mediates the relationship between Scarcity and Impulse Buying Behaviour

Impacts	B	Se Value	Std. Beta	R ²	A. R ²	Sig. Value
Scarcity on Hunger Marketing.	0.436	0.047	0.432	0.186	0.184	.000 ^b
Scarcity on Impulse Buying Behaviour.	0.273	0.023	0.293	0.817	0.815	.000 ^b

Hunger Marketing on Impulse Buying Behaviour.	0.680	0.022	0.739		
Indirect and Total effects				0.2971	0.5696

(Source: Survey Data)

Figure 4. A mediation model with hunger marketing as proposed mediator of scarcity and impulse buying behaviour



Based on the mediation analysis conducted in Table 6 the results of the mediation analysis suggest that the relationship between scarcity and impulse buying behaviour is partially mediated by hunger marketing. Scarcity was found to be a significant predictor of hunger marketing, $B=0.4368$, $SE=0.0467$, 95%, $\beta = 0.4319$, $p< .001$, indicating that as the perception of scarcity increases, so does the use of hunger marketing tactics. Additionally, both scarcity and hunger marketing were found to be significant, positive predictors of impulse buying behaviour, (Scarcity, $B=0.2725$, $SE=0.0226$, 95%, $\beta = 0.2926$, $p< .001$ and hunger marketing, $B=0.6802$, $SE=.0223$, 95%, $\beta = 0.7385$, $p< .001$).

The mediation analysis revealed that 52.16% of the effect of scarcity on impulse buying behaviour is mediated through hunger marketing, while the remaining 47.84% is direct. This suggests that while hunger marketing is an important factor in the relationship between scarcity and impulse buying behaviour, there are other factors at play as well.

DISCUSSION AND CONCLUSION

Objective 1: This study examines the level of brand impression, media promotion, scarcity, hunger marketing, and impulse buying behaviour among online shoppers in the Batticaloa District. The findings reveal a high perception of these marketing strategies, showing they effectively drive sales and revenue. Strong brand impression contributes to customer loyalty, while media promotion, including social media and influencer marketing enhances visibility and consumer engagement. Scarcity and hunger marketing generate urgency, which increases consumer demand, while impulse buying behaviour leads to spontaneous purchases, further contributing to increased sales volumes.

Objective 2: The second objective is to identify the relationships among brand impression, media promotion, scarcity, hunger marketing, and impulse buying behaviour. Using Pearson's correlation analysis, the study found strong and statistically significant positive relationships between these

variables. This suggests that online shoppers in Batticaloa are influenced by these marketing strategies, which effectively encourage impulse buying by creating urgency and enhancing product appeal. These findings confirm that brand impression, media promotion, scarcity, and hunger marketing are crucial factors in shaping consumer behaviour.

Objective 3: Regression analysis using PROCESS v4.2 (Andrew F. Hayes) revealed that hunger marketing partially mediates the relationship between brand impression, media promotion, scarcity, and impulse buying behaviour. Specifically, hunger marketing explains 44.58% of the effect of brand impression, 50.87% of media promotion, and 52.16% of scarcity on impulse buying. This underscores hunger marketing's role in amplifying consumer urgency and enhancing the perceived value of products. Studies from the University of Warwick (Ariely & Wertenbroch, 2020) and the University of British Columbia (Ferraro & Bettman, 2015) support this, indicating that scarcity tactics can increase perceived product value without harming brand perception if applied ethically.

LIMITATION OF THE STUDY

This study was conducted exclusively in the Batticaloa District of Sri Lanka, which limits the generalizability of the findings to other districts or regions with different socio-economic or cultural backgrounds. The sample was selected using a convenience sampling technique due to the unavailability of accurate data on the number of online shoppers in the target population. While this approach was practical, it may have introduced sampling bias and affected the overall representativeness of the study.

Data collection was carried out through structured questionnaires based on self-reported responses from participants. This method is susceptible to response bias, including social desirability and recall inaccuracies, which may influence the reliability of the responses. Additionally, the research focused exclusively on brand impression, media promotion, scarcity, and hunger marketing as determinants of impulse buying behaviour. Other potentially influential variables such as psychological, cultural, or environmental factors were not explored, which limits the scope of the study. And this study employed a cross-sectional design, capturing data at a single point in time. As a result, it does not allow for the establishment of causal relationships among the variables. A longitudinal approach could provide more comprehensive insights into how consumer behaviour evolves over time in response to changing marketing stimuli and external influences.

IMPLICATION OF THE STUDY

This study provides compelling evidence that hunger marketing significantly mediates the effects of brand impression, media promotion, and scarcity on impulse buying behaviour. Based on these findings, businesses should strategically implement urgency-based promotional tactics such as limited-time offers and exclusive product releases to trigger spontaneous consumer purchases. Given the strong impact of media promotion and brand impression on buying behaviour, firms are encouraged to invest in digital advertising and brand development, particularly through social media platforms that reflect their brand values and appeal to their target audiences. This approach can enhance both visibility and customer engagement.

Scarcity marketing also proves to be an effective tool in stimulating impulse buying. However, its application must be done ethically and transparently to maintain customer trust and protect long-term brand reputation. Companies should leverage consumer data to customize hunger marketing strategies, thereby improving user experiences and increasing conversion rates. These insights highlight the need for ethical marketing frameworks, especially considering how hunger marketing can manipulate psychological triggers such as urgency and the fear of missing out (FOMO).

For online businesses operating in developing regions like Batticaloa, these findings are particularly valuable. The study underscores the importance of adopting innovative digital marketing techniques to remain competitive, enhance consumer engagement, and promote sustainable business growth. Strengthening brand identity through high-quality products, consistent branding efforts, and memorable customer interactions is essential for fostering long-term customer relationships. Businesses should also consider using visually appealing content, time-sensitive deals, and strategic product placements to encourage impulse purchases.

While short-term sales boosts are important, building lasting relationships with customers through transparency, accurate product information, and ethical marketing practices remains critical. Ultimately, data-driven decision-making should be used to personalize marketing efforts, better understand consumer behaviour, and improve product positioning. When executed responsibly, these combined strategies can help businesses achieve sustainable growth while preserving a strong and trustworthy brand image.

REFERENCES

- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347-356.
- Aggarwal, P., Jun, S. Y., & Huh, J. H. (2011). Scarcity messages. *Journal of Advertising*, 40(3), 19-30.
- Ahmed, R. R., Streimikiene, D., Rolle, J. A., & Duc, P. A. (2020). The COVID-19 Pandemic and the Antecedents for the Impulse Buying Behaviour of US Citizens. *Journal of Competitiveness*, 12(3), 5–27.
- Amos, C., Holmes, G. R., & Keneson, W. C. (2014). A meta-analysis of consumer impulse buying. *Journal of Retailing and Consumer Services*, 21(2), 86-97.
- Ariely, D., & Wertenbroch, K. (2020). Procrastination, deadlines, and performance: self -control by precommitment. *Psychological Science*, 13(3), 219-224.
- Belanche, D., Flavián, C. and Pérez-Rueda, A. (2020) 'Brand recall of skippable vs non-skippable ads in YouTube: Readapting information and arousal to active audiences', *Online Information Review*, 44(3), pp. 545-562.
- Brock, T.C., Van der Wulp, N. and Van den Putte, B. (2017) 'Scarcity messages in advertising: How consumers respond to limited-time promotions', *International Journal of Advertising*, 36(5), pp. 773-790.

- Chandon, P., Wansink, B. and Laurent, G. (2000) 'A benefit congruency framework of sales promotion effectiveness', *Journal of Marketing*, 64(4), pp. 65-81.
- Cheema, A. and Papatla, P. (2010) 'Relative importance of online versus offline information for Internet purchases: Product category and Internet experience effects', *Journal of Business Research*, 63(9-10), pp. 979-985.
- Chen, C.C. and Yao, J.Y. (2018) 'What drives impulse buying behaviours in a mobile auction? The perspective of the stimulus-organism-response model', *Telematics and Informatics*, 35(4), pp. 65-77.
- Chen, Y., Kuo, C.J., Jhan, Y.C. and Chiu, P.N. (2014) Hunger marketing on smartphone, Taoyuan: Kainan University, International Business Department.
- Chen, Y., Kuo, J., Jhan, Y. and Chiu, P. (2014) 'Hunger marketing on smartphone', *Infrastructure and Service Integration*, 45(12), pp. 167-230.
- Chen, Y., Lu, Y., Wang, B. and Pan, Z. (2019) 'How do product recommendations affect impulse buying? An empirical study on WeChat social commerce', *Information & Management*, 56(2), pp. 236-248.
- Cialdini, R.B. (2009) *Influence: science and practice*, 4th edn. Boston: Pearson Education.
- Cook, S.C. and Yurchisin, J. (2017) 'Fast fashion environments: consumer's heaven or retailer's nightmare?', *International Journal of Retail & Distribution Management*, 45(2), pp. 143-157.
- Dwivedi, Y.K., Rana, N.P., Jeyaraj, A., Clement, M. and Williams, M.D. (2021) 'Reimagining consumer behaviour in the digital age', *Journal of Business Research*, 126, pp. 336-343.
- Eastman, S.T., Ferguson, D.A. and Eastman Klein, R. (2012) 'Media promotion & marketing for broadcasting, cable & the Internet', in *Broadcast Marketing*, Boca Raton: CRC Press, pp. 123132.
- Eroglu, S.A., Machleit, K.A. and Davis, L.M. (2001) 'Atmospheric qualities of online retailing: A conceptual model and implications', *Journal of Business Research*, 54(2), pp. 177-184.
- Feng, H., Fu, Q. and Zhang, L. (2020) 'How to launch a new durable good: A signaling rationale for hunger marketing', *International Journal of Indian Organization*, 70(1), pp. 105-134.
- Feng, Z., Al Mamun, A., Masukujjaman, M., Wu, M. and Yang, Q. (2024) 'Impulse buying behaviour during livestreaming: Moderating effects of scarcity persuasion and price perception', *Heliyon*, 10(7).
- Ferraro, R.S. and Bettman, J.R. (2015) 'Letting go of the need for closure: Insights from the musical Rent', *Journal of Consumer Research*, 41(4), pp. 1030-1050.

- Giroux, M., Park, J., Kim, J.E., Choi, Y.K., Lee, J.C., Kim, S., ... and Kim, J. (2023) 'The impact of communication information on the perceived threat of COVID-19 and stockpiling intention', *Australasian Marketing Journal*, 31(1), pp. 60-70.
- Gohary, A. and Hanzaee, K.H. (2014) 'Personality traits as predictors of shopping motivations and behaviours: a canonical correlation analysis', *Arab Economic and Business Journal*, 9(2), pp. 166-174.
- Habib, M.D. and Qayyum, A. (2018) 'Cognitive emotion theory and Emotion-Action tendency in online impulsive buying behaviour', *Journal of Management Sciences*, 5(1), pp. 86-99.
- Hair, J., Black, W.C., Babin, B.J., Anderson, R.E. and Tatham, R.L. (2010) *Multivariate data analysis*, 6th edn. Upper Saddle River, NJ: Prentice-Hall.
- Hamilton, R., Thompson, D., Bone, S., Chaplin, L.N., Griskevicius, V., Goldsmith, K. and Zhu, M. (2019) 'The effects of scarcity on consumer decision journeys', *Journal of the Academy of Marketing Science*, 47, pp. 532-550.
- Hausman, A. (2000) 'A multi-method investigation of consumer motivations in impulse buying behaviour', *Journal of Consumer Marketing*, 17(5), pp. 403-426.
- Iimedia (2021) Global online shopper size and forecast for 2015-2020. Retrieved from <https://data.iimedia.cn/page-category.jsp?nodeid=13596304>, 5(3), 54-58.
- Jones, C. and Kim, S. (2010) 'Influences of retail brand trust, off-line patronage, clothing involvement and website quality on online apparel shopping intention', *International Journal of Consumer Studies*, 34(6), pp. 627-637.
- Kapoor, A. and Banerjee, S. (2021) 'Social media and hunger marketing: A consumer behaviour perspective', *Journal of Marketing Communications*, 27(4), pp. 431-448.
- Keller, K.L. (2013) 'Building strong brands in a modern marketing communications environment', in *The evolution of integrated marketing communications*, Abingdon: Routledge, pp. 65-81.
- Keller, K.L., Parameswaran, M.G. and Jacob, I. (2010) *Strategic brand management: Building, measuring, and managing brand equity*, 3rd edn. New Delhi: Pearson Education India.
- Kim, J., Xu, Y. and Gupta, S. (2019) 'The power of scarcity: Social media and consumer behaviour', *International Journal of Advertising*, 38(5), pp. 741-760.
- Koo, D.M. and Ju, S.H. (2010) 'The interactional effects of atmospherics and perceptual curiosity on emotions and online shopping intention', *Computers in Human Behaviour*, 26(3), pp. 377-388.
- Kotler, P. and Keller, K.L. (2016) *Marketing management*, 15th edn. Harlow: Pearson.
- Laksamana, P. and Hidayat, G. (2019) 'How digital marketing influences impulse buying tendency and impulse buying in E-commerce industry', *International Journal of Research Science and Management*, 6(8), pp. 1-7.

- Lim, E.A. and Dubinsky, A.J. (2005) 'Antecedents and consequences of impulse buying behaviour in women's clothing', *Journal of Retailing and Consumer Services*, 12(2), pp. 109-121.
- Lin, C.T., Chen, C.W., Wang, S.J. and Lin, C.C. (2018) 'The influence of impulse buying toward consumer loyalty in online shopping: a regulatory focus theory perspective', *Journal of Ambient Intelligence and Humanized Computing*, pp. 1-11.
- Lo, C.L. (2021) 'Perceived impacts of hunger marketing on buying behaviours: a survey study of online shoppers', *Journal of Consumer Behaviour*, 20(4), pp. 427-437.
- Lynn, M. (1989) 'Scarcity effects on desirability: mediated by assumed expensiveness?', *Journal of Economic Psychology*, 10(2), pp. 257-274.
- Lynn, M. (1991) 'Scarcity effects on value: a quantitative review of the commodity theory literature', *Psychology & Marketing*, 8(1), pp. 43-57.
- Macdonald, K. and Sharp, B.M. (2000) 'Brand awareness effects on consumer decision making for a common, repeat purchase product: A replication', *Journal of Business Research*, 48(1), pp. 5-15.
- Maditinos, D., Chatzoudes, D. and Sarigiannidis, L. (2014) 'Factors affecting e-business successful implementation', *International Journal of Commerce and Management*, 24(4), pp. 300-320.
- Mehrabian, A. and Russell, J.A. (1974) *An approach to environmental psychology*, Cambridge, MA: MIT Press.
- Moore, K. (2020) *Scarcity marketing tactics*. Retrieved from <https://sumo.com/stories/scarcitymarketing 12-14>.
- Moser, C., Schoenebeck, S.Y. and Resnick, P. (2019) 'Impulse buying: Design practices and consumer needs', *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*, Glasgow, Scotland: Association for Computing Machinery, pp. 1-15. Available at: <https://doi.org/10.1145/3290605.3300472>
- Munro, P.G. and Schiffer, A. (2019) 'Ethnographies of electricity scarcity: Mobile phone charging spaces and the recrafting of energy poverty in Africa', *Energy and Buildings*, 188, pp. 175-183.
- Munusamy, J. and Wong, C.H. (2008) 'Relationship between marketing mix strategy and consumer motive: An empirical study in major Tesco stores', *Unitar Journal*, 4(2), pp. 41-56.
- Nagadeepa, C., Selvi, T. and Pushpa, A. (2015) 'Impact of sale promotion techniques on consumers' impulse buying behaviour towards apparels at Bangalore', *Asian Journal of Management Sciences & Education*, 4(1), pp. 116-124.
- Nora (2020) 'How does hunger marketing strategy get into your head?', *International Journal of Industrial Organization*, 70(1), pp. 768-790.
- O'Brien, H.L. (2010) 'The influence of hedonic and utilitarian motivations on user engagement: The case of online shopping environments', *Interacting with Computers*, 22(5), pp. 344-352.

- Parker, J.R. and Lehmann, D.R. (2011) 'When shelf-based scarcity impacts consumer preferences', *Journal of Retailing*, 82(2), pp. 142-155.
- Peck, J. and Childers, T.L. (2006) 'If I touch it I have to have it: Individual and environmental influences on impulse purchasing', *Journal of Business Research*, 59(6), pp. 765-769.
- Schivinski, B. and Dabrowski, D. (2016) 'The effect of social media communication on consumer perceptions of brands', *Journal of Marketing Communications*, 22(2), pp. 189-214.
- Sharma, P., Sivakumaran, B. and Marshall, R. (2010) 'Exploring impulse buying and variety seeking by retail shoppers: towards a common conceptual framework', *Journal of Marketing Management*, 26(5/6), pp. 473-494.
- Sung, Y. and Kim, J. (2010) 'Effects of brand personality on brand trust and brand affect', *Psychology & Marketing*, 27(7), pp. 639-661.
- Ta, L., Xu, X. and Dai, H. (2024) 'How to retain my consumers? Investigating incumbents' promotional strategies upon new business entry in the online-to-offline context', *International Journal of Electronic Commerce*, 28(3), pp. 295-331.
- Tain, S.B. and Chen, D. (2016) 'Hunger marketing strategy and its application research - based on Apple products', *Destech Transactions on Economics, Business and Management*, (icem), pp. 234-240. Available at: <http://dx.doi.org/10.12783/dtem/icem2016/4062>.
- Verhagen, T. and van Dolen, W. (2018) 'The influence of online store beliefs on consumer online impulse buying: a model and empirical application', *Information & Management*, 45(5), pp. 183193.
- Verhallen, T.M. (1982) 'Scarcity and consumer choice behaviour', *Journal of Economic Psychology*, 2(4), pp. 299-322.
- Wang, X. and Yang, Y. (2021) 'The impact of hunger marketing on consumer impulse buying behaviour: the moderating role of perceived scarcity and the mediating role of anticipated regret', *Journal of Marketing Research*, 37(2), pp. 203-214.
- Wells, J.D., Valacich, J.S. and Hess, T.J. (2011) 'What signal are you sending? How website quality influences perceptions of product quality and purchase intentions', *MIS Quarterly*, 35(2), pp. 373-396.
- Wu, L. (2020) 'Defining the determinants of online impulse buying through a shopping process of integrating perceived risk, expectation-confirmation model, and flow theory issues', *International Journal of Information Management*, 52, 102099. doi:10.1016/j.ijinfomgt.2020.102099



- Wu, Y., Xin, L., Li, D., Yu, J. and Guo, J. (2020) 'How does scarcity promotion lead to impulse purchase in the online market? A field experiment', *Information and Management*, 58(1), pp. 1032-1042.
- Xie, Y., Wang, H. and Wang, Y. (2016) 'Hunger marketing: an effective strategy for enhancing consumers' willingness to pay', *Journal of Consumer Marketing*, 33(7), pp. 511-519. doi:10.1108/JCM-02-2016-1662
- Xu, L., Zang, X. and He, J. (2020) 'How hunger marketing mediates consumer purchase intentions', *Marketing Letters*, 31(3), pp. 445-460.
- Zeithaml, V.A. (1988) 'Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence', *Journal of Marketing*, 52(3), pp. 2-22.
- Zhang, J. and Turner, J.J. (2022) 'The impact of hunger marketing on consumer decision making in the Chinese real estate market', *International Journal of Early Childhood*, 14(3), pp. 342-433.
- Zhang, Z., Zhang, N. and Wang, J. (2022) 'The influencing factors on impulse buying behaviour of consumers under the mode of hunger marketing in live commerce', *Sustainability*, 14(4), 2122.
- Zhao, R. and Xu, J. (2021) 'New marketing inspired by blind box', in *Proceedings of the 4th International Conference on Humanities Education and Social Sciences (ICHESS 2021)*, pp. 1673-1676. doi:10.2991/assehr.k211220.282