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The impact of website quality on online compulsive buying behavior: evidence from online shopping organizations

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Abstract

Purpose – The influence of website quality on online compulsive buying behavior (OCBB) in the context of online shopping based on the usage of a credit card (UCC) and online impulsive buying behavior (OIBB) was investigated in this study.

Design/methodology/approach – The authors used a research model to examine the relationships between the study components as per the prescription. For this investigation, the authors used an online survey form to obtain primary data from 350 respondents on social media. A covariance-based structural equation modeling approach was used to evaluate the structural research model and data.

Findings – The findings reveal that the quality of online shopping websites positively affects consumers' UCC and OIBB, and these in turn positively influence their OCBB.

Practical implications – The study emphasized impacting elements on consumer behavior and gave advice for future research based on the results. Using several dimensions of website quality, this study bridges the knowledge gap between UCC, OIBB and OCBB.

Originality/value – Based on UCC and OIBB, the authors developed a new model to investigate the link between website quality and OCBB. To the best of the authors' knowledge, it is the first experimental result that assesses the impact of website quality on OCBB.

Keywords Website quality, Compulsive buying behavior, Credit card, Impulse buying behavior, Consumer behavior

Paper type Research paper

1. Introduction

Electronic commerce has matured and is now omnipresent (Lim, 2015; Kumar *et al.*, 2021). With Internet shopping at the fingertip, consumers may engage in compulsive buying (Lim, 2017). According to previous studies (Dey and Srivastava, 2017), any Internet item may be purchased on the spur of the moment. Purchaser resources (e.g. money, time), reasons (e.g. hedonic, utilitarian), features (e.g. impulsive buying inclination, sensation-seeking) and marketing cues (Iyer *et al.*, 2020), are all important triggers for impulse buying. Impulse buying is most commonly used to purchase low-cost things, but it may also be used to obtain high-cost ones (Akram *et al.*, 2018).

Shopping is a common pastime in today's culture. However, when such activity develops into obsessive buying, it may become a dangerous and unwanted condition. In consumer research, compulsive shopping has become a topic of discussion. Customers' inclination to be

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preoccupied with recurrent shopping without much self-control is termed by Ridgway *et al.* (2008) as obsessive buying. According to Maraz *et al.* (2016), compulsive purchase habits affect one in every 20 people at some point in their lives. Compulsive purchasers are exposed to and overwhelmed by online and easy-buying activities, which are accompanied by a variety of marketing signals. This is due to the fact that compulsive buyers have low self-esteem and are exposed to and react strongly to marketing cues.

Whereas researchers recognize that website quality, use of credit cards (UCC), impulsive buying and compulsive buying are the most important driving issues of online buying behavior (OBB), the inter-associations among these variables have not been examined in the existing literature. Therefore, the effect of website quality on consumer compulsive purchasing behavior is still unknown. Thus, in light of the existing research gaps in the marketing literature, finding the impact of website quality on online compulsive purchasing behavior is the main objective of our study. As a result, the influence of website quality on compulsive purchase behavior has remained a mystery. In view of the current research gaps in the marketing literature, the primary goal of our study is to determine the influence of website quality on online compulsive purchase behavior. Additional goals of our research include: (1) determining the mediating effect of credit card use and online impulsive buying behavior (OIBB) on the relationship between website quality and online compulsive buying behavior (OCBB); (2) determining the direct effect of various dimensions of website quality on credit card use and OIBB; and (3) determining the indirect effect of various dimensions of website quality on OIBB based on credit card use and OIBB. As a result, in the current study, we were primarily concerned with five fundamental issues: (1) how does the quality of a website affect UCC? (2) What influence does website quality have on consumers' OIBB? (3) What impact does UCC have on consumers' OIBB? (4) How does the quality of a website affect a customer's OCBB? And (5) what aspect of website quality has the most or least impact on UCC, OIBB and OCBB?.

In this study, we also want to look at the impact of website quality on OCBB in developing countries. As a result, Bangladesh, a South Asian country, was chosen as the study's topic since South Asia is the world's only really diverse subcontinent (Dewasiri *et al.*, 2021). Furthermore, Bangladesh is a developing country with a higher rate of Internet subscriber growth than the rest of the world, and the vast majority of Bangladeshi Internet users engage in heavy online shopping (Hride *et al.*, 2022). As a result of changing lifestyles, e-commerce enterprises are fast growing in Bangladesh as a substitute channel for traditional marketing. Buyers are increasingly well-versed in and engrossed in Internet purchasing (Hride *et al.*, 2022). According to Suhan (2015), Bangladeshis are increasingly adopting and becoming more interested in online shopping. As a result, Bangladesh might be an excellent research site for proving empirical findings.

The current study was arranged as follows, based on the aforementioned major goals. The conceptual framework, theoretical background, and assumptions are presented in the following sections of Section 2. The methodological section of our study is presented in Section 3. The findings are then presented in detail in Section 4. Section 5 concludes with a discussion of the ramifications, findings and future research directions.

2. Literature review

In the e-commerce industry, website quality is critical since users' views of website quality directly influence their purchasing decisions. Because of its critical role in enhancing consumers' purchase intentions, website quality has gotten a lot of attention from practitioners and academics alike (Ongsakul *et al.*, 2020). When buying online, buyers demand good service from shopping websites (Hossain *et al.*, 2021). Jeong *et al.* (2003) were the first to bring the notion of "website quality" to the hotel industry. They defined "website

quality" as a website's overall excellence or usefulness in delivering planned messages to consumers and visitors (Li *et al.*, 2017). Website quality, according to Jeong *et al.* (2003), is defined as a website's overall efficacy or excellence in transmitting intended messages to target users and consumers (Ongsakul *et al.*, 2020). Loiacono *et al.* (2002) established the WebQualTM model, which categorizes website quality into four aspects: (1) usability, (2) ease of use, (3) entertainment and (4) complimentary connection, based on interviews with online users and designers and earlier research. The usability of a website determines if it can deliver adequate information to clients about products and services. The website's ease of use and entertainment dimensions indicate that it is simple to navigate and pleasant for visitors. The complementarity dimension represents the relationship between the website and other selling channels (Loiacono *et al.*, 2002). According to Li *et al.* (2017), website design is a key aspect in determining the quality of service delivered to online clients.

Subsequently, prior studies (Hossain and Rahman, 2021; Hossain *et al.*, 2018) describe that customers get flow as a result of websites' interactive features, which impacts their purchase intent. Furthermore, Bighiu *et al.* (2015) show that website quality has a positive impact on marketing initiatives. While shopping on the Internet, customers are prone to acting impulsively and are motivated by the simple buying procedure and access to items that require only a few clicks for ordering, a quick delivery process and a lack of social factors. In today's world, online shopping not only satisfies certain basic needs, such as the need for water, food, clothes, and so on, but it also does so without judgment and without regard to the acquired products or services. Shopping is frequently impulsive, and the reasons behind this are rarely examined. Customers are usually oblivious to this, especially now that online shopping has become an acceptable addiction (Bighiu *et al.*, 2015). Impulsive buying is a developing and invasive phenomenon, and it can be impacted by a customer's transitory psychological conditions or situational features. Prior studies looked at the role of impulsive purchases in an online environment (Akram *et al.*, 2018).

Additionally, online compulsive shopping appears to be a distinct behavioral problem characterized by specific features of motivation, lack of control, financial effect and overall time commitment (Hossain and Rahman, 2021). Credit card signals have been shown in several studies to increase consumer spending (Wong and Lynn, 2020). One explanation for this is that the recurrent merging of credit card stimuli with items and services purchased with credit cards has conditioned people to expect it. Spending may also be a learned response to the conditioned motivation of credit card cues (Wong and Lynn, 2020). The rising usage of credit cards coincides with the development of consumer credit options, such as personal loans, bank overdrafts and so on. While credit cards encourage client spending and provide purchasing freedom (Pradhan *et al.*, 2018), they also have a detrimental influence on our society. Customers' enjoyment of material things is also influenced by spontaneous UCC, which leads to an increase in conspicuous consumption. This may result in the development of a strong and convincing urge to buy, leading to the establishment of a debit due to credit card abuse and, as a result, the weakening and anguish of self-control, which eventually leads to OCBB (Eaglen and Schofield, 2017). Several previous studies (Pradhan *et al.*, 2018) found that consumers' obsessive behavior is influenced by their UCC.

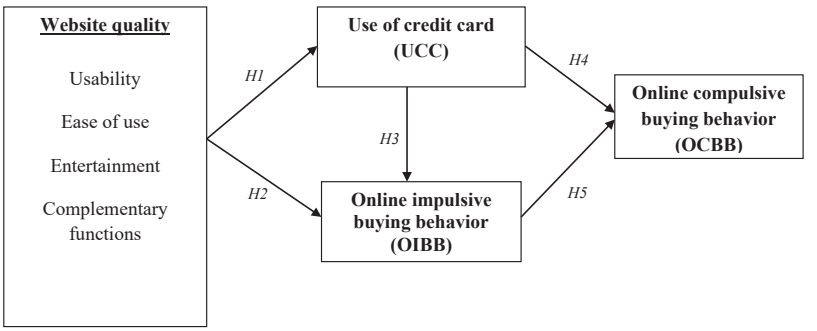
While studies (e.g. Lim *et al.*, 2014) have identified the most critical driving factors of OBB), the inter-associations among these (website quality, UCC), impulsive buying and compulsive buying) variables have not been addressed in the current literature. Although, Akram *et al.* (2018) looked at how website quality promotes online impulsive purchases as well as the moderating effects of sales promotions and credit card usage. Pradhan *et al.* (2018) investigated materialism and compulsive shopping, as well as the role of consumer credit cards in impulsive purchases. However, no research has been done on the relationship between website quality and obsessive shopping behavior.

2.1 Conceptual framework

Online product sales are becoming increasingly popular as a way to reach more consumers and better meet their expectations (Prasad and Ghosal, 2021). Consequently, the number of clients purchasing online is rapidly increasing (Sarkar and Ghosal, 2018; Ghosal, 2015), owing to the increased number of shopping websites. In our research, we considered whether the quality of a website has an impact on a user's internal state. Furthermore, Akram *et al.* (2018) discovered that website quality had a beneficial impact on UCC and OIBB. They also stated that UCC has a good influence on consumer OIBB. According to Pradhan *et al.* (2018), UCC and OIBB also govern consumer OCBB. As a result, this study concluded that website quality has a good impact on customer UCC and OIBB. Consumer OCBB would be influenced by UCC and OIBB (Figure 1).

2.2 Hypotheses development

2.2.1 Website quality and UCC. According to Hossain and Rahman (2021), customers' emotional states, such as worry and delight, are influenced by their sense of website quality. Several advantages of Internet shopping make it pleasurable and advantageous for clients. The most essential of these advantages is simplicity of use, which allows people to shop from the comfort of their own homes rather than visiting a physical store. The second benefit is the pleasurable sensation that comes with doing cashless transactions. Online shopping has become more appealing as a result of the introduction of digital money and credit cards. Because website quality may speed up credit card use, it seems relatively simple and convenient for customers buying with credit cards. A credit card is a type of plastic currency that allows users to make quick purchases (Akram *et al.*, 2018). In today's world, credit cards play a critical function. It is a handy way for a user to pay for goods and services on credit, up to the credit limit imposed by the credit card provider (Zainudin *et al.*, 2019). While credit cards provide greater flexibility and convenience for consumers, they may also have unintended consequences. According to Zainudin *et al.* (2019), credit card debt has an influence on client spending. Due to the comfort and simplicity of paying for items with credit cards, customers' failure to limit their credit card expenditures may result in extremely large outstanding credit, delaying repayment and increasing the total amount of interest paid. A credit card is an example of Internet spending behavior from a psychological standpoint. When compared to cash, credit cards increase fast-food restaurant sales by 50–100% (Akram *et al.*, 2018). Furthermore, using a credit card lowers the apparent cost. As a result, credit card shopping is expected to expand in the future as website quality improves (Akram *et al.*, 2018; Pradhan *et al.*, 2018). Based on the previous discussion and concentrating on the online buying context, we derived the following hypothesis:



Source(s): Proposed theoretical framework

Figure 1.
The conceptual framework

H1a. Usability positively affects UCC.

H1b. Ease of use positively affects UCC.

H1c. Entertainment positively affects UCC.

H1d. Complementary functions positively affect UCC.

2.2.2 Website quality and OIBB. In the context of Internet shopping, previous studies looked into the role of impulsive purchases (Akram *et al.*, 2018). Customer' impulse purchase behavior has received a lot of attention in consumer research (Iyer *et al.*, 2020). OIBB is associated with quicker decision-making and rapid ownership of goods and services (Dey and Srivastava, 2017). Stern (1962) divided impulse buying into four categories: pure impulse buying, suggestion impulsive buying, reminder impulse buying and "planned" impulse buying. Pure impulse shopping refers to when customers violate their typical purchasing patterns to make a new purchase on the spur of the moment. When a customer discovers the most recent good and wishes for it, this is known as a "suggested impulsive purchase." Unlike pure impulse buying, suggested impulse buying may be more of a relational path than an exciting response (Stern, 1962).

Hossain *et al.* (2018) demonstrated how website elements (such as visual appeal, product availability and simplicity of use) affect consumer attributes such as normative appraisal, rapid satisfaction and impulsiveness as a mediator to support impulse purchase. Previous research has shown that website quality has a beneficial impact on customers. For example, Hossain and Rahman (2021) found that three aspects of a website, namely usefulness, ease of use, and entertainment, had a beneficial influence on customers' impulse purchases. As a result, a well-designed feature increases the chances of spontaneous purchases by customers. According to Ali (2016), online marketers that want to reinforce and sustain customer support should improve and highlight website quality, because failing to do so might result in customers leaving. Customers' online behavior was studied by Hossain and Rahman (2021), who discovered that well-designed website elements had a significant impact on online shopping uptake. Based on the preceding discussion and concentrating on Internet shopping, we derived the following assumptions:

H2a. Usability positively affects OIBB.

H2b. Ease of use positively affects OIBB.

H2c. Entertainment positively affects OIBB.

H2d. Complementary functions positively affect OIBB.

2.2.3 UCC and OIBB. OIBB was first regarded as an unexpected result that was not linked to any pre-existing difficulty. Not all unexpected purchases are made based on Internet impulses. OIBB might also develop as a result of a positive in-store stimulus, such as the availability of credit cards (Pradhan *et al.*, 2018).

Money availability has a significant impact on impulsive purchases. According to Shah *et al.* (2016), reducing payment pain can enhance spending and positive appraisals throughout the buyer's deliberation and purchase process. Furthermore, credit cards have a beneficial impact on customers' impulsive purchases. Credit cards, in particular, encourage reckless Internet shopping (Akram *et al.*, 2018). Customers' impulse buying of apparel goods is linked to UCC, according to Akram *et al.* (2018). Easily accessible credit cards eliminate the immediate need for currency to purchase goods and services, resulting in increased customer spending and increasing the progression of impulse buying (Akram *et al.*, 2018; Pradhan *et al.*, 2018). Based on this and concentrating on the online buying context, we formed the following hypothesis:

H3. UCC positively affects OIBB.

2.2.4 UCC and OCBB. The next generation of addictions includes compulsive Internet buying. This sort of behavior, however, has previously been identified. In the early twentieth century, Emil Kraepelin, a German psychiatrist, used the term "oniomania" to describe the uncontrollable need to buy things (Bighiu *et al.*, 2015). The condition of compulsive purchasing was defined by McElroy *et al.* (1994) as a recurrent and chronic activity resulting from an initial reaction to unfavorable circumstances. Compulsive purchasing behavior is characterized by O'Guinn and Faber (1989) as a type of consumer conduct that is incorrect, generally excessive and chaotic in the lives of individuals who are impulsively drawn to buy. Impulsive and compulsive buying are related but not interchangeable. Impulsive buying is when you make a purchase based on external stimulation, such as putting a snack, gum or beverage in your shopping basket while waiting in line at the checkout register. However, in compulsive shopping, the need to buy stems from within, possibly from an anxiety sensitivity that the person wants to alleviate, or perhaps from a desire to feel better or happier (Bighiu *et al.*, 2015). Fundamentally, all previous research has suggested that website quality and UCC have a direct impact on OCBB. To our knowledge, no research has attempted to explore the influence of UCC on OCBB in the context of online purchases based on website quality. This study provides an additional hypothesis (H4) to cover this research gap:

H4. UCC positively affects OCBB.

2.2.5 OIBB and OCBB. Now, product purchases are not primarily motivated by necessity, and we buy and consume items without having a genuine need for them more frequently than in the past (Bighiu *et al.*, 2015). When a consumer is exposed to a positive stimulus, such as the purchase environment, OIBB develops. However, this behavior may be managed by managing the stimulus. As a result, O'Guinn and Faber (1989) defined OCBB as "a unique kind of activity characterized by constant purchase habits and an inability to limit additional purchases". Customers use CBB to get away from demands, to get rid of uncomfortable situations or sensations, and to deal with worry (Darrat *et al.*, 2016). According to some research, obsessive buying habits display both impulsive and compulsive behavior, and impulsive action in compulsive behavior is connected to the initial impulse of encouragement. According to some studies, compulsive conduct is a more extreme kind of impulsive behavior. Furthermore, compulsive activity was identified as a source of continual and recurrent disappointment in self-control as well as a riskier conduct than impulsive action (O'Guinn and Faber, 1989). As a result, impulsive purchasing raises consumer anxiety, which is linked to compulsive behavior, which is a type of customer addiction (Darrat *et al.*, 2016). To our knowledge, no research has attempted to explore the influence of OIBB on OCBB in the context of online shopping based on website quality. To fill this research gap, this study develops the following hypothesis (H5):

H5. OIBB positively affects OCBB.

3. Research methodology

The topic for this study was Bangladesh's generic online shopping businesses, and data were collected using the virtual snowball sampling approach. In our study, only participants who had previously used credit cards and websites were considered. Since it was exceedingly difficult for us to find those people, we used a snowball sampling approach, giving respondents the option to suggest other people by submitting their email addresses. According to the results of the current study, different website quality factors have varying degrees of influence on UCC, OIBB and OCBB. As a result, the study falls under the

comparative category of research, in which research questions or problems compare one or more explanatory variables with the dependent variable. Quantitative investigations explore the relationship, difference or relationship between the dependent and one or more independent variables (Dewasiri *et al.*, 2018).

The three components of an online web-based structured questionnaire were created to collect crucial information regarding client buying experiences on websites. The majority of the questions in the survey focused on identifying online buying interactions using websites and payment cards. The demographic profile of the respondents, such as gender, age, income and marital status, was the following component of the questionnaire (presented in Table 1). The survey's last segment included critical questions to gauge respondents' views on the study's core constructs. Website quality was assessed using four dimensions, namely website usability, ease of use, entertainment and supplementary services, which were examined using six, four, five and three items, respectively, as in previous research (Akram *et al.*, 2018; Li *et al.*, 2017). UCC (Pradhan *et al.*, 2018) was assessed using six and three items, respectively, whereas IBB (Darrat *et al.*, 2016) and CBB were assessed using five items (Darrat *et al.*, 2016; Pradhan *et al.*, 2018).

A five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to record the main data. Furthermore, the data collection procedure was adapted from previous investigations (Hossain *et al.*, 2018). A survey link (URL) was provided to 2,500 people, 475 of whom agreed to participate. The questionnaire URL was also shared and

Variables	Number	Percentage (%)
Gender		
Male	108	31
Female	242	69
Age		
18–25	48	14
26–35	77	22
36–45	123	35
above 45	102	29
Education level		
High school or below	66	19
College	108	31
Graduate school or above	176	50
Occupation		
Public servant	66	19
Private job	68	20
Business	99	28
Not currently employed (e.g. housewife, retired, and student)	117	33
Length of Internet experience		
1–3 years	156	45
4–6 years	98	28
7–9 years	78	22
Above 9 years	18	5
Hours per week on the Internet		
0–3	72	21
4–8	34	10
9–12	113	32
Above 12	131	37

Table 1. Profile of the respondents

uploaded on a variety of social media platforms, including WeChat, Facebook and IMO. A total of 437 replies were gathered from all sources. After filtering and deleting all logically missing data, 350 final respondents were chosen for data analysis. A total of 31% of the 350 people who responded to the survey were men, while 69% were women. The age group of 36–45 years old comprised the lion's share of the sample (35%). More than half of the participants had completed graduate school or higher education. Majority of respondents (45%) have one to three years of Internet experience and spend more than 12 h per week online (37%). In total, 33% of respondents were unemployed (e.g. retired, housewives and students); 28% worked in business; 20% worked in private industry; and 19% worked in government. The proportion of results captured from this demographic profile is shown in Table 1. We also examined descriptive statistics, reliability and validity to ensure the quality of our obtained data. Following that, we utilized Amos 23.0 and CB-SEM (covariance-based structural equation modeling) to evaluate the connections among the research components in our study model. Because the partial least square (PLS) analysis method is more rigid in terms of sample size and residual distribution than AMOS (Nam *et al.*, 2018), and also because Hair *et al.* (2017) stated that the PLA based algorithm is not appropriate for covariance-based SEM, we used AMOS to conduct structural equation modeling (SEM) in the current study.

4. Data analysis and results

4.1 Common method bias and variance inflation factor test

In self-report surveys and quantitative research, common method bias (CMB) or common method variance (CMV) is a common occurrence. When survey data from a single source is collected at the same time, CMB occurs. As a result, we used Harman's one-factor test to investigate CMB for our research. According to the findings, the first item only explains 5.095% of the variance, and the eigenvalue of all components was greater than one. As a consequence of the CMB text, it was determined that CMV was not a significant factor in the present investigation. As a result, all of the constructs in this investigation were found to be reliable.

4.2 Reliability and validity analysis

Cronbach's alpha was determined, and dependability was tested to see if the constructs were internally consistent. The coefficients of dependability among constructs (shown in Table 1) outperformed Fornell and Larcker (1981)'s proposed cut-off value of 0.7. As a result, all build values indicated appropriate dependability. Confirmatory factor analysis (CFA) was also used to calculate the convergent and discriminant validity. Furthermore, three measures were explicitly utilized to determine convergent validity: reliability, the AVE (average variance extracted), and the CR (composite reliability) of each construct as proposed by Fornell and Larcker (1981) and Hair *et al.* (2017). The factor loadings (FLs) of the underlying construct were used to compute all indices (Ali, 2016; Hossain *et al.*, 2018). Table 2 indicates the inner consistency of the construct, demonstrating that all measurement FLs surpassed the lowest indicated threshold (0.7) (Ali, 2016; Hossain *et al.*, 2021). Furthermore, the CR values, which represent the range of the latent construct's indicators, were higher than the indicated minimum value of 0.7. (Hossain *et al.*, 2018). Furthermore, the AVE values were greater than the prescribed minimum value of 0.5, which indicates the total variation size in the latent construct indicators (Hossain *et al.*, 2018).

The squared inter-correlations among the research constructs, as well as the shared variance of constructs, are represented in Table 3. The square derivation of the explained standard variance is not hampered by these values. As a result, the current study's discriminant validity is supported.

Construct	Item	Factor loadings	Composite reliability (CR)	Average variance extracted (AVE)	Based on
Usability (reliability $\alpha = 0.83$)			0.90	0.62	Li *et al.* (2017)
	UST1: The website effectively provides my information desires	0.90			
	UST 2: The information provided on the e-commerce website is very useful	0.77			
	UST 3: I can interrelate with the e-commerce website to acquire information customized to my wishes	0.73			
	UST 4: I feel secure in my dealings on the e-commerce website	0.72			
	UST 5: I believe the information provided on the e-commerce website	0.75			
	UST 6: The e-commerce website loads speedily	0.84			
Ease of use (reliability $\alpha = 0.75$)			0.87	0.68	Li *et al.* (2017)
	EOU 1: Pages of the e-commerce website are very easy to understand	0.89			
	EOU 2: The website text is simple to read	0.90			
	EOU 3: The site is effortless to operate	0.78			
	EOU 4: I can effortlessly become experienced in using the e-commerce website	0.74			
Entertainment (reliability $\alpha = 0.77$)			0.86	0.56	Li *et al.* (2017)
	ENT1: The e-commerce website is enjoyable visually	0.73			
	ENT 2: The e-commerce website is pleasing visually	0.71			
	ENT3: The website design is fashionable	0.86			
	ENT4: The design of the e-commerce website is innovative	0.82			
	ENT5: I feel happy when I visit the e-commerce website	0.80			
Complementary functions (reliability $\alpha = 0.76$)			0.85	0.71	Li *et al.* (2017)
	CPY1: It allows online transactions	0.89			
	CPY 2: The shopping process is easier through the website than email, fax or phone	0.88			
	CPY 3: Calling through the website is easy	0.76			
Credit card use (reliability $\alpha = 0.82$)			0.87	0.56	Pradhan *et al.*, (2018)
	CCU1: I am less anxious while shopping with credit cards	0.77			
	CCU 2: I am extra impulsive when I buy with credit cards	0.73			
	CCU3: I have several credit cards	0.72			
	CCU 4: I worry about the debt of the credit card	0.71			
	CCU 5: I buy more with credit cards	0.78			
	CCU6: I frequently pay the minimum amount on credit card bills	0.77			
Impulsive buying behavior (reliability $\alpha = 0.79$)			0.88	0.66	Darrat *et al.* (2016)
	IBB1: "Instantly do it" depicts my buying process	0.86			
	IBB2: I frequently buy without thinking	0.77			
	IBB3: "I see the product, I buy the product" describes me	0.80			

(*continued*)

Table 2. Reliability and factor loadings

Construct	Item	Factor loadings	Composite reliability (CR)	Average variance extracted (AVE)	Based on
Compulsive buying behavior (reliability $\alpha = 0.85$)			0.85	0.56	Darrat *et al.* (2016), Pradhan *et al.* (2018)
	CBB1: I purchase a product that I cannot afford	0.73			
	CBB2: I just want to buy a product and do not worry about what I purchase	0.80			
	CBB3: I buy to refresh my mind	0.76			
	CBB4: I feel nervous or anxious on days I do not buy	0.73			
	CBB5: I buy and put away products without using them	0.71			

Table 2.

		1	2	3	4	5	6	7
1	Usability	0.85						
2	Ease of use	0.42	0.81					
3	Entertainment	0.23	0.14	0.79				
4	Complementary functions	0.06	0.12	0.31	0.77			
5	Credit card use	0.04	0.03	0.35	0.43	0.81		
6	Impulsive buying	0.03	0.03	0.04	0.24	0.12	0.75	
7	Compulsive buying	0.23	0.12	0.05	0.04	0.21	0.04	0.78

Note(s): All correlations are significant at 0.01 probability level
Diagonal values are the square roots of AVEs

Table 3.
Squared inter-correlation among the constructs

4.3 The structural equation model

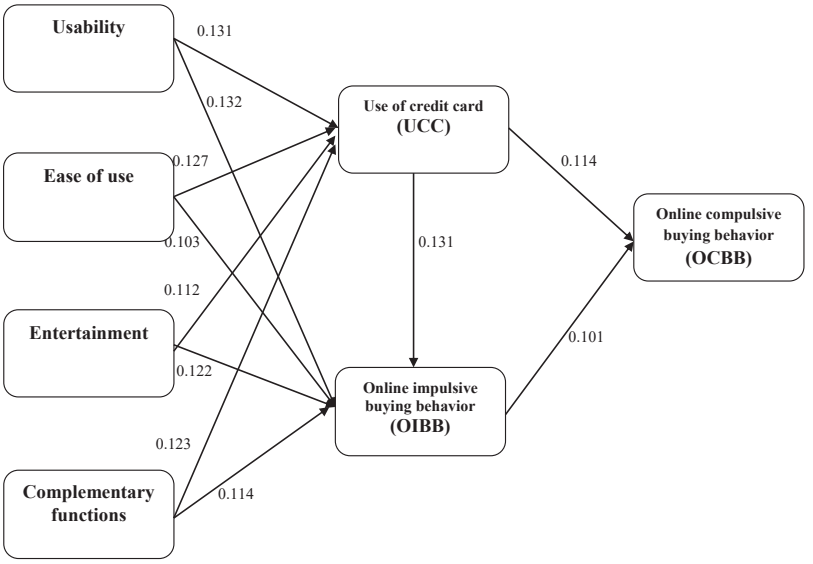
Due to 362 degrees of freedom (df), the Chi-square (2) value was 821.19, corresponding to a ratio of 2.28 between the value of Chi-square and the degree of freedom, a lower ratio than the maximum proposed value of 5 (Bagozzi and Yi, 1988).

After estimating all the fit indices of our study model based on the suggested scale of values (Bagozzi and Yi, 1988), our investigation confirmed a good model fit (GFI = 0.81, AGFI = 0.86, CFI = 0.94, IFI = 0.92, NFI = 0.91, NNFI = 0.94, RMSEA = 0.06). Figure 2 shows that all the standardized path coefficients are significant. Therefore, the outcomes indicated that website quality offered a positive connection with UCC and OIBB, respectively, confirming our hypotheses H1a to H1d and H2a to H2d. We also find that, in the online shopping context, UCC is positively associated with OIBB and OCBB, which supports our hypotheses H3 and H4. Furthermore, OIBB was positively related to OCBB; as a result, H5 is also supported.

Interestingly, the latent construct of our study corresponding to usability was website quality, which showed the maximum coefficient in determining the user's credit card use (0.131), and after that ease of use (0.127), complementary functions (0.123) and entertainment (0.112). Correspondingly, the usability of website quality presented the maximum coefficient in determining the respondent's OIBB (0.132), and subsequently, entertainment (0.122), complementary functions (0.114) and ease of use (0.103). In summary, the current study also noticed that both UCC (0.114) and OIBB (0.101) played a stronger role in determining OCBB.

5. Discussion

The CB-SEM approach was used to evaluate our research model and examine the proposed hypotheses. The results of the structural modeling analysis (Figure 2) revealed evidence to



Note(s): X^2 (Chi-square): 821.19; df (Degrees of freedom): 362; GFI (goodness of fit index): 0.81; AGFI (adjusted goodness of fit index): 0.86; CFI (Confirmatory fit index): 0.94; IFI (incremental fit index): 0.92; NFI (normed fit index): 0.91; NNFI (non-normed fit index): 0.94; RMSEA (Root mean square error of approximation): 0.06

Source(s): Output form Amos 22.0

Figure 2.
Outcome of structural modeling analysis

support our research paradigm, revealing both indirect and direct relationships between the variables under investigation. Based on the findings, we discovered that several aspects of website quality influence customers' UCC and OIBB, as well as OCBB. Furthermore, our findings revealed that UCC affected OIBB and OCBB, as well as OIBB influenced OCBB. Furthermore, the current study found that all aspects of website quality had an impact on consumers' UCC and OIBB, which in turn had an impact on their OCBB. The cumulative impacts of various dimensions of website quality on different variables are confirmed in Table 4. Usability had a total effect of 0.131, 0.147 and 0.013 on UCC, OIBB and OCBB, respectively, indicating that usability has a significant impact not only on UCC and OIBB, but also on OCBB. In those three constructions, ease of use had a total impact of 0.127, 0.211 and 0.086, respectively. Our overall impacts for the entertainment construct were 0.112 for UCC, 0.143 for OIBB, and 0.0170 for OCBB, which is rather interesting. As a result, UCC had an influence on OCBB. We also discovered that complementary functions had overall impacts on UCC, OIBB and OCBB of 0.123, 0.162 and 0.042, respectively. Overall, all aspects of website quality had a substantial influence on UCCs, OIBB and OCBB, according to our findings.

6. Conclusion

Marketers gain sales opportunities and face an exceedingly competitive e-commerce sector as online purchasing activities rise in popularity. Marketers who can generate high customer OIBB and OCBB may see increased demand and profits. By evaluating and combining three essential aspects of online buying activities (website quality, UCC and OIBB), the current study was able to determine the influence of the website on OCBB. As a result, our findings raised a number of

	Usability	Ease of use	Entertainment	Complementary functions	Credit card use	Impulsive buying
Direct effects calculation						
Credit card use	0.131	0.127	0.112	0.123		
Impulsive buying	0.132	0.103	0.122	0.114	0.131	
Compulsive buying					0.114	0.101
Indirect effects calculation						
Credit card use						
Impulsive buying	0.015	0.108	0.021	0.048		
Compulsive buying	0.013	0.086	0.017	0.042		
Total effect calculation						
Credit card use	0.131	0.127	0.112	0.123		
Impulsive buying	0.147	0.211	0.143	0.162	0.131	
Compulsive buying	0.013	0.086	0.017	0.042	0.114	0.101

Note(s): All effects are significant at $p < 0.05$

Table 4.
Direct effects, indirect effects and total effects – estimation

critical issues about the impact of website quality on OCBB via UCC and OIBB, as well as other essential elements of online shopping. Developing and providing website quality in online marketing activities is a critical modern company since website quality dimensions have a significant impact on online purchasing activities, with those dimensions fast increasing sales levels. Our findings can assist online marketers in making more profit by delivering better website quality since our investigation demonstrated that all website quality aspects can impact UCC, OIBB and OCBB when combined. We also show that aspects of website quality (usability, ease of use, entertainment, and complementary functions) influence customers' OIBB (impulsive purchases) and UCC (the latent construct that describes customers' less anxious, more impulsive behavior, debt worries, desire to keep more credit cards and paying the least amount on credit card bills while shopping). We also mentioned that UCC has an effect on OIBB. Finally, UCC and OIBB both had an impact on OCBB, showing that customers are dissatisfied with their existing purchases, want to acquire new things on a regular basis and want to discard them without utilizing them. Thus, if online marketers want to increase website earnings, they should improve website usability, which means that their website effectively provides useful information that customers want, customers trust the information provided, customers can connect through the website and feel secure in dealings, and the website loading time is very short. E-commerce website pages should be simple to comprehend, the language should be easy to read, the website should be simple to use, and clients should acquire experience while using the e-commerce website. Furthermore, the website should provide better entertainment, implying that the website is aesthetically appealing and pleasant, that its design is current, and that people are delighted when they visit it. Finally, the website should have more complimentary services, suggesting that it supports online transactions, that the purchasing experience is more convenient via the website than by email, fax, or phone and that communication is more convenient via the website.

6.1 Theoretical contributions

The current study adds to the existing literature on Internet commerce for developing nations by providing several theoretical contributions. Furthermore, Akram *et al.* (2018) investigated how

website quality influences online impulse purchases, as well as the moderating impacts of sales promotions and credit card use. Materialism and compulsive purchasing were explored by Pradhan *et al.* (2018), as well as the function of consumer credit cards in impulsive purchases. However, no studies have been conducted on the link between website quality and compulsive purchasing. As a result, the impact of website quality on compulsive shopping has remained a mystery. In this study, we propose that website quality, as a core kind of online business, influences OCBB via the mediating role of consumers' UCC and OIBB. To the best of our knowledge, our study is the first to find a relationship between website quality and compulsive purchasing based on UCC and customers' impulsive purchasing behavior. As a consequence, our research model contributes to the literature in the disciplines of Internet marketing and consumer behavior.

Second, our model demonstrated the beneficial impact of website quality on OCBB based on UCC and customer OIBB, making it a valuable addition to the theoretical fields of online marketing, e-commerce, e-retailing, and e-consumer behavior by filling in gaps in previous research. Third, the research used an integrated method, assessing a number of linked topics at the same time, such as website quality dimensions, UCC and OIBB. Our research found that these elements influence online compulsive buying in a favorable and substantial way. Finally, our research discovered that UCC and OIBB play an important role in the relationship between website quality dimensions and OCBB, which is another theoretical addition to the online business and marketing literature.

6.2 Practical implications

Our findings are extremely useful for both online marketers and buyers, and they are relevant not only to developing nations but maybe even to the rest of the world. For marketers, our research shows that website quality is associated with UCC, online impulsive purchasing, and online compulsive buying in a favorable and robust way. Online visitors have a dual nature as users and consumers of a website. As a result, a website's quality and design should focus on user friendliness and provide navigational tools, relevant items and information tailored to the demands of customers. Because website quality is such an important part of online impulsive and compulsive buying, online marketers should pay close attention to it. As a result, our research aids marketers in understanding the critical earning aspects that drive client OIBB and OCBB.

However, our findings revealed that OIBB raises customers' worries about using credit cards to make online purchases, which is linked to OCBB. Marketers should keep in mind that credit cards improve sales volume, especially for impulsive purchases. As a result, financial institutions must exercise caution when targeting credit card clients who may begin as impulse buyers but gradually develop into compulsive buyers as their desires to buy get stronger. As a result, these clients may overspend and be unable to repay the loan, causing negative psychological effects on customers and society as a whole. As a result, it is critical for the government, policymakers and economists to develop proper measures to prevent credit card fraud.

Furthermore, online users can assess their sensitivity to unexpected and hazardous purchasing habits by tracking their addictive behavior when shopping with credit cards. Moreover, we developed a study model that will assist marketers in determining the influence of website quality on OCBB based on credit card usage and online impulsive purchasing behavior. This can help marketers create acceptable marketing methods for conducting business on the Internet, as well as comprehend how credit cards and impulsive purchasing behavior affect clients' compulsive purchase intent.

7. Limitations and future research

Our findings are limited by a number of caveats that should be considered in future studies. First, our study only looked at one developing country; therefore, future research could

improve the results by looking at more than one country, especially if different countries have different technological structures (e.g. credit card usage, Internet cost and percentage of Internet and/or credit card users). Second, because our sample was self-selected, future studies might assess various realistic ways to research sample moderation. Third, there are other critical aspects associated with website quality that have been discussed in the literature, such as system, information and service quality. These problems might be incorporated into our model. Fourth, regular customers and infrequent customers are largely dissimilar; thus, further research should be done to distinguish them and analyze their relative strengths in terms of website quality and UCC, OIBB and OCBB. Fifth, website quality is a multifaceted term. The present study only looked at four factors to measure the quality of a website. As a consequence, future studies may uncover even more linkages between the conception of website quality and future research. Sixth, future studies may look at new research from the UCC, OIBB and OCBB that examines contemporary trends like COVID-19 (Sheth, 2020), the new-age digital revolution (Lim, 2022), customers' sentiments (Hossain and Rahman, 2022; Hossain *et al.*, 2022; Hossain and Rahman, 2022), emotional and normative aspects of customers (Pashchenko *et al.*, 2022) and status consumption (Hossain *et al.*, 2022). Finally, future research might include specific stimulating components in our model, such as pleasure, perceived excitement or happiness to investigate their impact on OCBB.

References

Akram, U., Hui, P., Khan, M.K., Tanveer, Y., Mehmood, K. and Ahmad, W. (2018), "How website quality affects online impulse buying: moderating effects of sales promotion and credit card use", *Asia Pacific Journal of Marketing and Logistics*, Vol. 30 No. 1, pp. 235-256. doi: 10.1108/APJML-04-2017-0073.

Ali, F. (2016), "Hotel website quality, perceived flow, customer satisfaction and purchase intention", *Journal of Hospitality and Tourism Technology*, Vol. 7 No. 2, pp. 213-228, doi: 10.1108/JHTT-02-2016-0010.

Bagozzi, R.P. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16 No. 1, pp. 74-94, doi: 10.1007/bf02723327.

Bighiu, G., Manolică, A. and Roman, C.T. (2015), "Compulsive buying behavior on the internet", *Procedia Economics and Finance*, Vol. 20, pp. 72-79. doi: 10.1016/s2212-5671(15)00049-0.

Darrat, A.A., Darrat, M.A. and Amyx, D. (2016), "How impulse buying influences compulsive buying: the central role of consumer anxiety and escapism", *Journal of Retailing and Consumer Services*, Vol. 31, pp. 103-108. doi: 10.1016/j.jretconser.2016.03.009.

Dewasiri, N.J., Weerakoon, Y.K.B. and Azeez, A.A. (2018), "Mixed methods in finance research: the rationale and research designs", *International Journal of Qualitative Methods*, Vol. 17 No. 1, 1609406918801730.

Dewasiri, N.J., Rana, S. and Kashif, M. (2021), "Editorial – theory building in marketing: rationalizing South Asian perspective", *South Asian Journal of Marketing*, Vol. 2 No. 1, pp. 1-4, doi: 10.1108/sajm-03-2021-071.

Dey, D.K. and Srivastava, A. (2017), "Impulse buying intentions of young consumers from a hedonic shopping perspective", *Journal of Indian Business Research*, Vol. 9 No. 4, pp. 266-282, doi: 10.1108/JIBR-02-2017-0018.

Eaglen, M.A. and Schofield, P. (2017), "Compulsive buying behavior: re-evaluating its dimensions and screening", *Journal of Consumer Behaviour*, Vol. 16 No. 5, pp. 463-473.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50, doi: 10.2307/ 3151312.

Ghosal, I. (2015), "A demographic study of buying spontaneity on E-shoppers: preference Kolkata (West Bengal)", *Journal of Technology Management for Growing Economies*, Vol. 6 No. 2, pp. 65-75.

Hair, J.F., Hollingsworth, C.L., Randolph, A.B. and Chong, A.Y.L. (2017), "An updated and expanded assessment of PLS-SEM in information systems research", *Industrial Management and Data Systems*, Vol. 117 No. 3, pp. 442-458.

Hossain, M.S. and Rahman, M.F. (2021), "Website quality, perceived flow, trust, and commitment: developing a customer relationship management model", in Ho, R., Hou Hong Ng, A. and Nourallah, M. (Eds), *Impact of Globalization and Advanced Technologies on Online Business Models*, IGI Global, pp. 202-226, doi: 10.4018/978-1-7998-7603-8.ch013.

Hossain, M.S. and Rahman, M.F. (2022), "Detection of potential customers' empathy behavior towards customers' reviews", *Journal of Retailing and Consumer Services*, Vol. 65, 102881, doi: 10.1016/j.jretconser.2021.102881.

Hossain, M.S., Rahman, M.F. and Zhou, X. (2021), "Impact of customers' interpersonal interactions in social commerce on customer relationship management performance", *Journal of Contemporary Marketing Science*, Vol. 4 No. 2, pp. 161-181, doi: 10.1108/JCMARS-12-2020-0050.

Hossain, M.S., Zhou, X. and Rahman, M.F. (2018), "Examining the impact of QR codes on purchase intention and customer satisfaction on the basis of perceived flow", *International Journal of Engineering Business Management*, Vol. 10, pp. 1-11, doi: 10.1177/1847979018812323.

Hossain, M.S. and Rahman, M.F. (2022), "Customer sentiment analysis and prediction of insurance products' reviews using machine learning approaches", *FIIB Business Review*, Vol. ahead-of-print No. ahead-of-print, doi: 10.1177/23197145221115793.

Hossain, M.S., Rahman, M.F., Uddin, M.K. and Hossain, M.K. (2022), "Customer sentiment analysis and prediction of halal restaurants using machine learning approaches", *Journal of Islamic Marketing*, Vol. ahead-of-print No. ahead-of-print, doi: 10.1108/JIMA-04-2021-0125.

Hride, F.T., Ferdousi, F. and Jasimuddin, S.M. (2022), "Linking perceived price fairness, customer satisfaction, trust, and loyalty: a structural equation modeling of Facebook-based e-commerce in Bangladesh", *Global Business and Organizational Excellence*, Vol. 41 No. 3, pp. 41-54.

Iyer, G.R., Blut, M., Xiao, S.H. and Grewal, D. (2020), "Impulse buying: a meta-analytic review", *Journal of the Academy of Marketing Science*, Vol. 48, pp. 384-404, doi: 10.1007/s11747-019-00670-w.

Jeong, M., Oh, H. and Gregoire, M. (2003), "Conceptualizing web site quality and its consequences in the lodging industry", *International Journal of Hospitality Management*, Vol. 22 No. 2, pp. 161-175.

Kumar, S., Lim, W.M., Pandey, N. and Westland, J.C. (2021), "20 years of electronic commerce research", *Electronic Commerce Research*, Vol. 21 No. 1, pp. 1-40.

Li, L., Peng, M., Jiang, N. and Law, R. (2017), "An empirical study on the influence of economy hotel website quality on online booking intentions", *International Journal of Hospitality Management*, Vol. 63, pp. 1-10, doi: 10.1016/j.ijhm.2017.01.001.

Lim, W.M. (2015), "Antecedents and consequences of e-shopping: an integrated model", *Internet Research*, Vol. 25 No. 2, pp. 184-217.

Lim, W.M. (2017), "Untangling the relationships between consumer characteristics, shopping values, and behavioral intention in online group buying", *Journal of Strategic Marketing*, Vol. 25 No. 7, pp. 547-566.

Lim, W.M. (2022), "Ushering a new era of global business and organizational excellence: taking a leaf out of recent trends in the new normal", *Global Business and Organizational Excellence*, Vol. 41 No. 5, pp. 5-13.

Lim, W.M., Ng, W.K., Chin, J.H. and Boo, A.W.X. (2014), "Understanding young consumer perceptions on credit card usage: implications for responsible consumption", *Contemporary Management Research*, Vol. 10 No. 4, pp. 287-302.

Loiacono, E.T., Watson, R.T. and Goodhue, D.L. (2002), "WebQual^{TM} : a measure of web site quality", *Marketing Theory and Applications*, Vol. 13 No. 3, pp. 432-438, doi: 10.1590/S0104-530X2005000200011.

Maraz, A., Griffiths, M.D. and Demetrovics, Z. (2016), "The prevalence of compulsive buying: a meta-analysis", *Addiction*, Vol. 111 No. 3, pp. 408-419.

McElroy, S., Phillips, K. and Keck, P. (1994), "Obsessive compulsive spectrum disorder", *Journal of Clinical Psychiatry*, Vol. 55, pp. 33-53.

Nam, S.T., Kim, D.G. and Jin, C.Y. (2018), "A comparison analysis among structural equation modeling (AMOS, LISREL and PLS) using the same data", *Journal of the Korea Institute of Information and Communication Engineering*, Vol. 22 No. 7, pp. 978-984.

O'Guinn, T.C. and Faber, R.J. (1989), "Compulsive buying: a phenomenological exploration", *Journal of Consumer Research*, Vol. 16, pp. 147-157.

Ongsakul, V., Ali, F., Wu, C., Duan, Y., Cobanoglu, C. and Ryu, K. (2020), "Hotel website quality, performance, telepresence and behavioral intentions", *Tourism Review*, Vol. 76 No. 3, pp. 681-700, doi: 10.1108/TR-02-2019-0039.

Pashchenko, Y., Rahman, M.F., Hossain, M.S., Uddin, M.K. and Islam, T. (2022), "Emotional and the normative aspects of customers' reviews", *Journal of Retailing and Consumer Services*, Vol. 68, 103011, doi: 10.1016/j.jretconser.2022.103011.

Pradhan, D., Israel, D. and Jena, A.K. (2018), "Materialism and compulsive buying behaviour: the role of consumer credit card use and impulse buying", *Asia Pacific Journal of Marketing and Logistics*, Vol. 30 No. 5, pp. 1239-1258, doi: 10.1108/APJML-08-2017-0164.

Prasad, B. and Ghosal, I. (2021), "Forecasting buying intention through artificial neural network: an algorithmic solution on direct-to-consumer brands", *FIIB Business Review*, 23197145211046126.

Ridgway, N.M., Kukar-Kinney, M. and Monroe, K.B. (2008), "An expanded conceptualization and new measure of compulsive buying", *Journal of Consumer Research*, Vol. 35 No. 4, pp. 622-639.

Sarkar, M.D. and Ghosal, I. (2018), "Impact of social media in small business industry: a study on Facebook", *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, Vol. 2 No. 3, pp. 33-39.

Shah, A.M., Eisenkraft, N., Bettman, J.R. and Chartrand, T.L. (2016), "Paper or plastic?": how we pay influences post-transaction connection", *Journal of Consumer Research*, Vol. 42 No. 5, pp. 688-708, doi: 10.1093/jcr/ucv056.

Sheth, J. (2020), "Impact of Covid-19 on consumer behavior: will the old habits return or die?", *Journal of Business Research*, Vol. 117, pp. 280-283, doi: 10.1016/j.jbusres.2020.05.059.

Stern, H. (1962), "The significance of impulse buying today", *The Journal of Marketing*, Vol. 26 No. 2, pp. 59-62, doi: 10.1177/002224296202600212.

Suhan, J. (2015), "Acceptance of online shopping in Bangladesh: consumer's perspective", *Journal of Business and Management*, Vol. 12 No. 1, pp. 14-24.

Wong, K.Y. and Lynn, M. (2020), "Credit card cue effect: how mere exposure to credit card cues promotes consumers' perceived financial well-being and spending", *International Journal of Bank Marketing*, Vol. 38 No. 2, pp. 368-383, doi: 10.1108/IJBM-01-2019-0010.

Zainudin, R., Mahdzan, N.S. and Yeap, M.Y. (2019), "Determinants of credit card misuse among Gen Y consumers in urban Malaysia", *International Journal of Bank Marketing*, Vol. 37 No. 5, pp. 1350-1370, doi: 10.1108/IJBM-08-2018-0215.

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