

Mindfulness and Stage-Wise Self-Regulation in Impulsive Buying: The Moderating Role of Family Life Cycle

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ARTICLE INFO	ABSTRACT
Received: 05 Nov 2025	Online shopping markets have heightened impulse purchases, which in most cases lead to post purchase regrets, economic strain and low consumer satisfaction. Although other researchers have mainly focused on external stimuli that cause impulsive behaviour, little focus has been on the internal psychological processes that allow one to maintain behavioural control. This paper combines the Five Facet Mindfulness model with the Stage Model of Self-Regulated Behaviour Change to test the hypothesis of how mindfulness can assist people to make gradual shifts in the impulse-driven to deliberate buying behaviour, where Family Life Cycle serves as a confounder. Direct, mediated, and moderated relationships between independent and dependent variables were tested using Structural Equation Modelling on cross-sectional survey data of 1, 200 Indian higher education institutions working professionals. The findings suggest that the mindfulness is one of the important predictors of progress through the stages of self-regulation, personal norm, perceived behavioural control, self-efficacy, and maintenance of behaviour. Family Life Cycle balances out major stage specific relationships, emphasizing contextual differences in regulatory capacity. This research brings behavioural self-regulation theory to consumer psychology and also provides practical implications of mindfulness-based consumer education and responsible digital choice design.
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INTRODUCTION

Online shopping platforms have contributed to the escalation of impulsive consumer behaviour by facilitating stress-free transactions, AI customisation, and unceasing exposure to hedonic stimuli. Although impulsive purchases can create a burst of temporary satisfaction, they commonly lead to post-purchase disappointment, financial anxieties, and low levels of consumer welfare (Rook, 1987; Hoch and Loewenstein, 1991; Vohs and Faber, 2007). In the new economy like India, a high rate of digitalisation has only increased the tendencies of impulse buying behaviour in various socio-economic groups, casting doubt on sustainable consumer buying behaviour and financial strength. Other studies in the field of marketing stressed on external factors influencing impulsive purchasing, such as the design of websites, the frames of promotions, the application of scarcity, and the mechanism of social influence (Verhagen and Van Dolen, 2011; Akram et al., 2017). As much as these studies can be used to explain situational activation of impulsive responses, it provides little information of the way consumers can build long-term self-regulatory strength to cope with the impulses in the long run. It takes behavioural change, which involves not only situational control but also internal psychological resources to aid in attention control, emotional balance and reflective decision-making (Baumeister et al., 2007).

Mindfulness, which is a lack of judgmental perception of the current moment, improves cognitive control and emotions, and allows individuals to deactivate the automatic behavioural patterns (Brown and Ryan, 2003; Shapiro et al., 2006). Empirical evidence is growing to show that mindfulness leads to impulsive buying being minimized and value-congruent decision-making being fostered (Papies et al., 2012; Park and Dhandra, 2017; Dhandra, 2020). Nevertheless, the body of literature has mainly investigated the direct impacts of mindfulness on impulsive behaviour that provides minimal description of how mindfulness leads to chronic behavioural changes over time and situations of decision-making.

The conceptualization of behavioural change according to the Stage Model of Self-Regulated Behaviour Change considers behaviour change as a process of progression through motivational, volitional, action, and maintenance stages (Bamberg, 2013; Richter and Hunecke, 2020). Although this framework has been extensively used in environmental and health behaviour sectors, it has not been used extensively in the consumer behaviour. By combining mindfulness with stage-based regulatory approach, one has a conceptually sound avenue of elucidating how awareness converts into systematic behavioural regulation and not episodic impulse repression.

Consumer self-regulation is incorporated in the context of life stages that define financial obligations, position requirements, and emotional interests. The Family Life Cycle model describes organisational shift in the consumption behaviour during demographic shifts like early adulthood, formation of families, child-rearing, and late adulthood (Gilly and Enis, 1982; Neulinger and Rado, 2018). These situational processes imply that the efficacy of mindfulness-based self-regulation could be different in different life periods, and it is essential to investigate the concept of Family Life Cycle as a mediating variable.

In that regard, this paper combines Five Facet Mindfulness framework and Stage Model of Self-Regulated Behaviour Change to investigate how mindfulness promotes stage by stage development in impulsive buying regulation, and how the moderating effect of Family Life Cycle was considered. The paper, based on Structural Equation Modeling of survey data gathered among working professionals in India, provides a contribution to the literature on behavioural marketing by furthering a psychologically based developmentally oriented model of responsible consumption.

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Impulsive buying defined as spontaneous and unplanned purchasing behaviour in which the emotion arousal is high and there is less mental deliberation (Rook, 1987; Hoch and Loewenstein, 1991). Impulsive consumption has also been enhanced by environments of digital commerce, which provide algorithmic personalization, frictionless payment systems, promotional cues in real-time, and mechanisms of social influence and raise attentional overload and emotional arousal (Verhagen and Van Dolen, 2011; Akram et al., 2017). Impulse shopping can cause instant satisfaction but is often marked by after sales remorse, financial anxiety and decreased mental health (Vohs & Faber, 2007; Dhandra, 2020). In terms of marketing, impulsive consumption compromises the long-term customer value, financial sustainability, and responsible marketplace governance, and more and more scholars are interested in the regulatory mechanisms that would facilitate the adoption of reasonable decisions by consumers.

Previous literature on marketing has primarily investigated situational and environmental antecedents of impulsive purchasing, such as the appearance of websites, the message of scarcity, the elements of time pressure, the payment convenience, and the signs of social approval (Verhagen and Van Dolen, 2011; Akram et al., 2017). Although these studies provide account of the stimuli by which impulsive responses are aroused, they provide little information on the way in which consumers gain long-term self-regulatory competence that stabilizes behaviour in repeated decision making.

Literature on behavioural self-control is now appreciating that sustainable regulation includes internal psychological resources to promote attentional discipline, emotional stability, reflective processing as well as situational suppression (Baumeister et al., 2007; Muraven and Baumeister, 2000).

Mindfulness can be described as the non-judgmental attention to the current experience and is characterized by the development of attentional clarity, emotional regulation and metacognitive monitoring (Brown and Ryan, 2003; Baer et al., 2006). Neurocognitive studies show that mindfulness supports the executive control networks and the emotional-regulation circuits strengthening the stability of behaviours and adaptive self-regulation (Tang et al., 2015). In the consumer setting, mindfulness decreases heuristic responsiveness to marketing information and enables consideration of needs, value salience, and long-term utility, thus transforming decision heuristics in online markets (Papies et al., 2012; Bahl et al., 2016). There is an empirical evidence of a consistent association of mindfulness with negative and impulsive buying behaviour and positive connection with responsible consumption behaviour (Park & Dhandra, 2017; Dhandra, 2020). Nevertheless, the majority of the current studies use direct-effect models and cross-sectional approaches, as they provide minimal insight into the developmental processes by which mindfulness can result in the long-lasting behavioural control.

The conceptualisation of behavioural change in the Stage Model of Self-Regulated Behaviour Change imagines behavioural change to be progressive change in motivational activation, volitional planning, behavioural execution, and maintenance processes (Bamberg, 2013; Richter and Hunecke, 2020). This framework points out that behaviour change is a product of structured regulatory ability and not occasional inhibition of impulses. Although SSBC has found wide application in environmental sustainability and health behaviour studies, little research has applied it to consumer behaviour, thus it is an important theoretical gap in scholarship of behaviour marketing. The incorporation of mindfulness into a stage-based regulatory framework is a concise framework that offers an explanation of how conscious awareness adjusts to long-term behavioural growth as opposed to short-term restraint (Shapiro et al., 2006; Papies et al., 2012).

Consumer self-regulation is incorporated in the demographic life-stage situations that influence the financial obligations, role demands, emotion priorities, and cognitive burdens. The Family Life Cycle theory describes regular changes in the consumption pattern across the alteration in early adulthood, family formation, child-rearing, and later adulthood (Gilly and Enis, 1982; Neulinger and Rado, 2018). Such transitions affect resource availability, exposure to stress, and regulatory demands, and it is possible to assume that the efficacy of mindfulness-based self-regulation might differ in different life stages. Although it is relevant, Family Life Cycle has been seldom incorporated in the modern models of behavioural self-regulation in the context of digital consumption.

By combining the two points of view, the current research suggests a holistic model where mindfulness underlies transitioning through the stages of self-regulated behaviour change, which results in behavioural stability in impulsive purchasing, and Family Life Cycle mediates these effects. Although evidence has been accumulating in mindfulness being associated with less impulsivity, the current research is mostly direct-effect based and theoretically inconsistent, as they have little to say about the developmental pathways by which mindfulness may bring about long-term behavioural control at various stages in consumer life. This work adds to the behavioural marketing theory by combining mindfulness, stagebased self-regulation, and demographic background into a single empirical framework and thus leads to the new research into mindful consumption and financial wellness as well as responsible digital marketplaces.

OBJECTIVES OF THE STUDY

Based on the behavioural self-regulation theory and mindfulness studies on consumer behaviour, the current research plan is to investigate how internal psychological resources can facilitate the maintenance of impulsive purchases in digitally intensive consumption settings. In particular, the goals are to:

1. Test the connection between mindfulness and the stage-regulated self-regulated behaviour change in impulsive buying, including the hypothesis that the connection between mindful awareness and the advancement through motivational, volitional, action and recovery phases of behavioural control.
2. Explore how mindfulness leads to the stable consumption behaviour by assessing the mediating variables that underlie the effects of stage-wise self-regulation on weakening impulsive buying behaviour and increasing behavioural consistency.
3. Determine the contextual effects of Family Life Cycle on mindfulness self-regulation, noting that demographic life stages impact regulatory needs, economic and cognitive burdens of consumer decision-making.
4. Construct and empirically test a conceptual model synthesising mindfulness, stage-based self-regulation, and demographic context to develop and enhance the behavioural marketing theory and inform in responsible consumption plans.

HYPOTHESES DEVELOPMENT

Mindfulness and Stage-Wise Self-Regulated Behaviour Change

Mindfulness facilitates attentional clarity, emotional control, and metacognition, which allow illuminated people to disconnect with automatic behavioural reactions and become reflectively self-regulatory (Brown and Ryan, 2003; Shapiro et al., 2006; Tang et al., 2015). Mindfulness in consumers lowers reactivity to marketing stimuli and helps to make conscientious decisions (Papies et al., 2012; Park and Dhandra, 2017; Dhandra, 2020). Mindful awareness may be predicted to be beneficial in stage-based regulatory system in the advancement through motivational, volitional, action, and recovery stages by enhancing behavioural monitoring, planning, execution ability, and relapse control.

H₁: *Mindfulness positively influences stage-wise self-regulated behaviour change in impulsive buying.*

Mediating Role of Stage-Wise Self-Regulation

Stage Model of Self-regulated Change in Behaviour assumes that consistent behavioural change results are the product of a certain development process through motivation intention formation, volitional planning, behavioural execution, and maintenance as opposed to direct impulse suppression (Bamberg, 2013; Richter and Hunecke, 2020). The stage-by-stage self-regulation, as intensive as mindfulness enhances regulatory capacity on each of these stages, is set to serve as the main mechanism that allows mindfulness to be transformed into long-term behavioural stability and less impulsive purchasing.

H₂: *Stage-wise self-regulated behaviour change mediates the relationship between mindfulness and impulsive buying behaviour.*

Moderating Role of Family Life Cycle

Consumer self-regulation is integrated into the demographic life-stage situations that condition financial commitments, role requirements, affective concerns and cognitive burden (Gilly and Enis,

1982; Neulinger and Rado, 2018). These contextual conditions affect impulse exposure, as well as regulatory capacity, which implies that the power of mindfulness-guided self-regulation might be less consistent at different stages of the Family Life Cycle, and that the one might be less effective during periods of high demand, e.g., early parenting and family formation.

H₃: *Family Life Cycle moderates the relationship between mindfulness and stage-wise self-regulated behaviour change in impulsive buying.*

METHODOLOGY

Research Design

The study adopted a quantitative, cross-sectional research design to examine the relationships among mindfulness, stage-wise self-regulated behaviour change, and impulsive buying behaviour, with Family Life Cycle as a moderating variable. A survey-based approach was employed to capture latent psychological constructs commonly examined in consumer behaviour research. Structural Equation Modeling (SEM) was used to simultaneously test direct, mediated, and moderated relationships due to its suitability for analysing complex causal structures involving latent variables (Hair et al., 2022).

Sample and Data Collection

A structured questionnaire was used to scavenge working professionals who work in institutions of higher learning in the Northern part of India. To achieve the desired sampling purposiveness, a purposive sampling method was used to capture respondents with a regular digital purchasing exposure, consistent income trends, and independent purchasing decision making level in as far as impulse buying behaviour is concerned. The response was voluntary and anonymous.

The total number of responses to which the screening was performed is 1,200. It consisted of 51.8 percent male and 48.2 percent female respondents and the mean age was 37.38 years (SD = 9.89). The education level and the level of income among the respondents was high. There was representation of Family Life Cycle in the form of bachelors/single individuals, married couples without children and families with dependent children which allowed the multi-group analysis. Information was gathered in a period of three months using online, as well as paper-based questionnaires. All the participants were informed and allowed to give their consent before data collection.

Measures

The measures of all constructs were taken based on the existing multi-item scales with slight contextual modification to impulsive buying and digital consumption environment. The five-point Likert-type scales were used to record responses.

Mindfulness

Mindfulness was assessed in terms of the Five Facet Mindfulness Questionnaire (FFMQ) created by Baer et al. (2006) that reflected observing, describing, acting with awareness, non-judging, and non-reactivity.

Stage-Wise Self-controlled Change of Behaviour

The self-regulation on a stage basis was operationalized under the Stage Model of Self-Regulated Behaviour Change suggested by Bamberg (2013) including the pre-decisional (personal norms), pre-actional (planning and control), action (coping self-efficacy) and post-action (recovery self-efficacy) levels adjusted to impulsive buying behaviour.

Impulsive Buying Behaviour

The scale that used to measure impulsive buying behaviour was a validated multi-item scale based on the existing consumer behaviour measures.

Family Life Cycle

The method of operation used in the Family Life Cycle classification was the framework suggested by Gilly and Enis (1982), whereby respondents were classified into the corresponding demographic life-stage.

Data Analysis Procedure

The SPSS and AMOS/SmartPLS have been used to analyze the data. A preliminary screening was done by missing value testing, normality testing, multi-collinearity tests, and outlier detection. Cronbach alpha was used to determine the internal consistency reliability. Confirmatory factor analysis was used to test construct validity.

The model fit was evaluated with the help of various indices, such as 2/df, Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square error of approximation (RMSEA), and Standardized root mean square residual (SRMR) and according to the accepted values (Hu and Bentler, 1999; Hair et al., 2022). Bootstrapped confidence intervals were used to test the mediation effects. The comparisons of multi-group SEM were used to test moderation effects of Family Life Cycle.

Common Method Bias Evaluation

The single-factor test of Harman was performed to measuring possible common method bias due to the self-reports. The initial un-rotated factor explained a less than half of the total variance, which suggested that common method bias was not likely to have a significant impact on the outcomes.

Ethical Considerations

The research was in accordance with institutional ethics. It was voluntary and the anonymity was observed and the respondents were informed of the purpose of the research beforehand. No personal data were gathered.

RESULTS

Sample Profile

The last sample was comprised of 1,200 respondents who were sampled out of higher institutions of learning in Northern India. The study population consisted of 51.8 per cent males and 48.2 per cent females and a mean of 37.38 years ($SD = 9.89$). The respondents stated a high level of education and a steady source of income. Family size was 4.13 members on average ($SD = 2.23$) and professional experience was 10.34 on average ($SD = 7.54$). The stages of Family Life Cycle were represented such as bachelors/single persons, married couples without children, families with dependent children, and made it possible to conduct subgroup analysis.

Table 1 presents the detailed sample profile.

Table 1: Sample Profile of Respondents

Variable	Statistic	Value
Sample Size	N	1,200
Gender	Male (%)	51.8
Gender	Female (%)	48.2
Age	Mean (SD)	37.38 (9.89)
Education Level	Mean (6-point scale)	4.95
Income Level	Mean (5-point scale)	4.38
Family Size	Mean (SD)	4.13 (2.23)
Professional Experience	Mean (SD)	10.34 (7.54)

Source: Field survey data collected by authors (2025).

Reliability and Measurement Quality

Cronbachs alpha was used to test internal consistency reliability. All constructs were above the suggested level of 0.70 which means good levels of reliability. Values of mindfulness aspects were found to be between 0.88 and 0.91. The impulsive buying scale was quite reliable (0.939). The constructs of stage-wise self-regulation also had good internal consistency, such as personal norms ($\alpha = 0.890$), pre-actional constructs ($\alpha = 0.799$), coping self-efficacy ($\alpha = 0.928$) and recovery self-efficacy ($\alpha = 0.905$).

Confirmatory factor analysis supported construct validity, with acceptable factor loadings and satisfactory model fit indices.

Reliability statistics are reported in Table 2.

Table 2: Reliability Statistics of Measurement Scales

Construct	Number of Items	Cronbach's Alpha
FFMQ Facets	—	0.88 – 0.91
Impulsive Buying Behaviour	20	0.939

Personal Norm (Pre-decisional)	—	0.890
Pre-actional Constructs	—	0.799
Coping Self-Efficacy	—	0.928
Recovery Self-Efficacy	—	0.905

Source: Reliability analysis output (SPSS)

Structural Model and Hypothesis Testing

Structural Equation Modeling was used to test the hypothesized relationships. The structural model demonstrated acceptable goodness-of-fit based on standard indices (CFI, TLI, RMSEA, SRMR within recommended thresholds).

Mindfulness exhibited a significant positive effect on stage-wise self-regulated behaviour change, supporting H₁. Stage-wise self-regulation significantly mediated the relationship between mindfulness and impulsive buying behaviour, supporting H₂. Multi-group analysis revealed that Family Life Cycle significantly moderated the relationship between mindfulness and stage-wise self-regulation, supporting H₃.

Table 3 presents standardized path coefficients, significance levels, and hypothesis decisions.

Table 3: Summary of Hypothesis Testing

Hypothesis	Path	Result	Decision
H ₁	Mindfulness → SSBC Stages	Significant	Supported
H ₂ –H ₅	SSBC → Behavioural Outcomes	Significant Mediation	Supported
H ₆	Family Life Cycle (Moderation)	Significant	Supported

Source: Structural Equation Modeling results (AMOS/SmartPLS).

Figure 1 illustrates the integrated structural model.

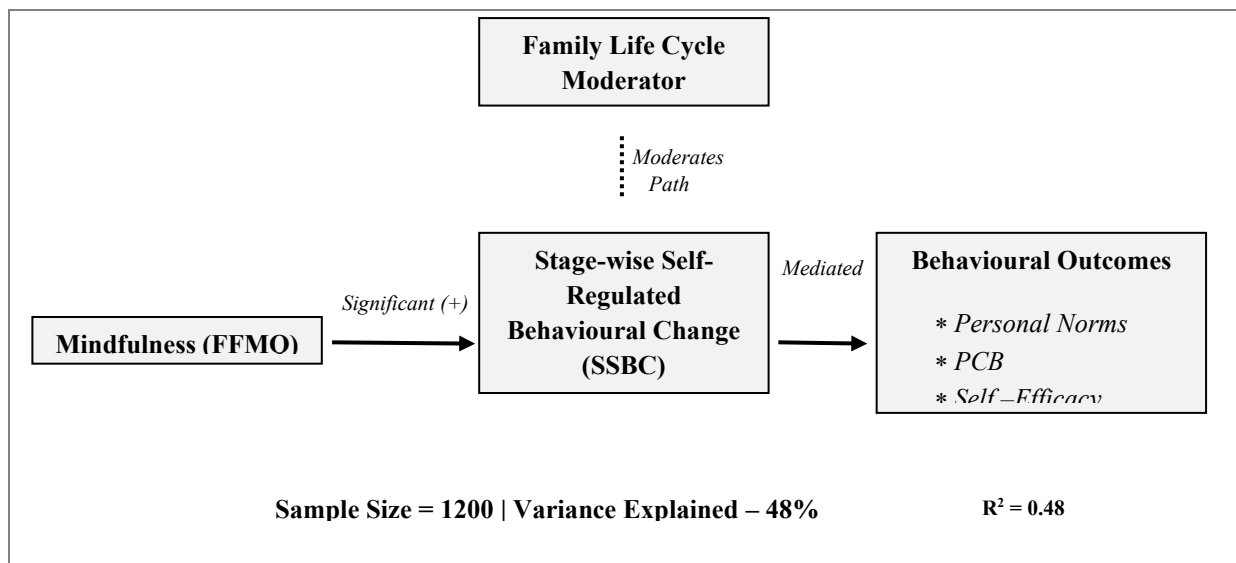


Figure 1. Integrated Structural Model of Mindfulness, Stage-Wise Self-Regulated Behaviour Change, and Behavioural Outcomes with Family Life Cycle Moderation.

Source: Authors' conceptualization and SEM analysis.

Moderation Analysis: Family Life Cycle

Subgroup analysis revealed meaningful differences in impulsive buying tendencies across Family Life Cycle stages and mindfulness practice status. Among bachelors, impulsivity levels were similar between practitioners and non-practitioners. In the married-without-children group, mindfulness practitioners exhibited lower impulsivity than non-practitioners. The strongest moderation effect was observed among parents with young children, where mindfulness practitioners demonstrated substantially lower impulsive buying tendencies.

Table 4 presents mean differences across Family Life Cycle stages and mindfulness practice groups.

Table 4: Moderation by Family Life Cycle

Path	Bachelor / Single (β)	Married (β)	Parents (β)	Moderation Effect
Mindfulness → Personal Norms	0.48*	0.42*	0.31*	Significant
Mindfulness → Coping Self-Efficacy	0.36*	0.44*	0.57*	Significant
SSBC → Rational Buying	0.41*	0.49*	0.52*	Significant
Mindfulness → Recovery Self-Efficacy	0.29*	0.37*	0.46*	Significant

*β values indicate standardized path coefficients; * p < .05.

DISCUSSION

The current paper discussed the effects of mindfulness in the stage-managed self-controlled change of behaviour in impulsive purchasing and the moderating effect of Family Life Cycle. The results suggest that mindfulness has a strong positive influence on the advancement of consumers through self-regulatory phases, which proves the assumption that conscious awareness builds attentional control, emotion and reflective judgment in consumption situations. This finding is consistent with the

previous evidence that shows that mindfulness decreases impulsive reactivity and enhances mindful regulation of behaviour (Brown and Ryan, 2003; Papies et al., 2012; Park and Dhandra, 2017; Dhandra, 2020). These findings make this literature important because they reveal that mindfulness is not only an immediate inhibitor of impulsive purchasing but is an inducing factor of long-term behavioural change through sequential regulatory processes.

These results are further supported by the enormous mediating roles of stage-wise self-regulation on relationships between mindfulness and personal norms, perceived behavioural control, self-efficacy and behavioural maintenance, which further demonstrate the theoretical adherence of the Stage Model of Self-Regulated Behaviour Change. The results confirm the suggestion put forward by Bamberg (2013) that behaviour change occurs in progressive motivational and volitional stages and not the solitary incidences of impulse management. The findings also have a reflection of the self-regulation theory where executive control and self-monitoring play a role in ensuring consistency of behaviour (Baumeister et al., 2007; Muraven and Baumeister, 2000). The research expounds the behavioural marketing theory by empirically incorporating mindfulness into stage-based regulatory framework to elucidate how internal resources in the form of the psyche are converted into long-term consumption patterns.

Family Life Cycle moderating power underscores the consumer self regulation embedded in the context. The variations between life-stage categories imply that the efficacy of mindfulness-based regulation depends on the aspect of financial obligation, role demands, and emotional priorities, which align with the consumption life-cycle theory (Gilly and Enis, 1982; Neulinger and Rado, 2018). This observation highlights the need to customize behavioural policies and consumer education policy to demographic life-stage situations instead of using the same regulatory policies.

Managing-policy wise, the findings justify the inclusion of mindfulness-based training in financial literacy, employee wellness and responsible digital choice architectures. It is possible to create nudging technology that encourages thoughtful consumer behavior instead of utilizing impulsive weaknesses to build consumer confidence and enhance the quality of relationships in the long-term, as well as platform and marketer design. Stage-based behavioural interventions can also be used by policymakers to promote sustainable consumption and financial well-being.

Altogether, the results are relevant to the existing body of research on mindful consumption and behavioural self-regulation as they present empirical data on a psychologically based, development-focused framework that can support the desired impulsive purchasing in digitally intensive markets.

CONCLUSION AND LIMITATIONS

This paper has revealed that mindfulness can be used as a dynamic psychological resource that promotes a gradual behaviour change in impulsive buying that is self-regulated. The paper combines both Five Facet Mindfulness model and the Stage Model of Self-Regulated Behaviour Change as contextual moderators to interpret consumer behaviour change between impulsive and intentional consumption by the use of regulatory structures. The results indicate that mindfulness enhances motivational awareness, volitional control and maintenance of behaviour, and has useful implications in terms of developing mindfulness-based financial literacy programs, stage-based consumer education programs, and responsible digital choice architectures.

In spite of its input, the study is vulnerable to a number of limitations. The cross-sectional design limits the causation and the ability to validate the temporal transition of behaviour. Self-reported measures can create a common method bias and the sample used in the study being investigated is restricted as it is based on higher education professionals, making it impossible to generalize the findings to different socio-economic backgrounds. A longitudinal or experimental study with objective

behavioural data and validation of the framework with diverse demographic and cultural sample samples would be well-informed to enhance the external validity and causal strength of future research work.

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