



# Kent Academic Repository

Upadhye, Bilwa, Sivakumaran, Bharadhwaj, Pradhan, Debasis and Lyngdoh, Teidorlang (2021) *Can planning prompt be a boon for impulsive customers? Moderating roles of product category and decisional procrastination.* Psychology & Marketing . ISSN 0742-6046.

## Downloaded from

<https://kar.kent.ac.uk/87762/> The University of Kent's Academic Repository KAR

## The version of record is available from

<https://doi.org/10.1002/mar.21490>

## This document version

Author's Accepted Manuscript

## DOI for this version

## Licence for this version

UNSPECIFIED

## Additional information

## Versions of research works

### Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

### Author Accepted Manuscripts

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in **Title of Journal** , Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

### Enquiries

If you have questions about this document contact [ResearchSupport@kent.ac.uk](mailto:ResearchSupport@kent.ac.uk). Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our [Take Down policy](https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies) (available from <https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies>).

**Title:** Can Planning Prompt be a Boon for Impulsive Customers? Moderating roles of Product Category and Decisional Procrastination

**Short running title:** Planning Prompt and Impulsive Consumers

**Keywords:** *implementation intention research; planning prompt; consumer welfare; decisional procrastination; impulse buying; product category; action regulation theory.*

**Authors\***

Bilwa Upadhye  
PhD in Marketing, XLRI Jamshedpur  
Assistant Professor of Marketing, O.P. Jindal Global University, Sonipat  
Postal address: Xavier School of Business, XLRI, Circuit House Area [East], Jamshedpur 831001, India.  
Telephone number: +(91) 9689244264  
Email ID: [bilwa92@gmail.com](mailto:bilwa92@gmail.com)

Bharadhwaj Sivakumaran  
PhD in Marketing, Robert Smith School of Business, University of Maryland, USA  
Dr Bala V and Vasantha Balachandran Chair Professor of Marketing,  
Great Lakes Institute of Management, Chennai  
Postal address: Dr. Bala V. Balachandar Campus, East Coast Road, Manamai Village, Tamil Nadu 603102, India.  
Telephone number: +(91) 44 30809210  
Email ID: [bwaj@greatlakes.edu.in](mailto:bwaj@greatlakes.edu.in)

Debasis Pradhan (Corresponding Author)  
PhD in Marketing, Institute of Rural Management Anand, Gujarat, India  
Professor of Marketing, XLRI Jamshedpur  
Postal address: Xavier School of Business, XLRI, Circuit House Area [East], Jamshedpur 831001, India.  
Telephone number: +(91) 657 665 3193  
Email ID: [debasis@xlri.ac.in](mailto:debasis@xlri.ac.in)

Teidorlang Lyngdoh  
PhD in Marketing, Indian Institute of Management, Kozhikode  
Assistant Professor of Marketing, University of Kent  
Postal address: Room 138, The Sail and Colour Loft, The Historic Dockyard, Chatham, ME4, 4TE, UK  
Telephone number: +44 (0)1634 888839  
Email ID: [t.lyngdoh@kent.ac.uk](mailto:t.lyngdoh@kent.ac.uk)

*\*All four authors contributed equally to this work.*

**Acknowledgement**

We gratefully acknowledge constructive comments of Prof. Clement Chow, the Associate Editor and the two anonymous reviewers. We thank Prof. Tapas Ranjan Moharana for his helpful comments on an earlier version of the manuscript.

# Can Planning Prompt be a Boon for Impulsive Customers? Moderating Roles of Product Category and Decisional Procrastination

## **Abstract**

Extant research in the Impulse Buying (IB) domain has predominantly focused on how it can be enhanced and has mostly benefitted marketers. This research, however, shifts the focus to consumers and how they can mitigate or reduce impulse buying. Drawing on Action Regulation Theory (ART), we posit that planning prompts mitigates impulse buying; and that this mitigating effect is stronger for individuals with high (vis-à-vis low) decisional procrastination as also for vice (vis-à-vis virtue) products. Hypotheses were tested using two studies conducted in India. Study 1 (n = 200) was conducted using a vignette-based experiment in a hypothetical scenario while Study 2 (n = 200) was a field experiment conducted on consumers in a mall setting. Our research advances knowledge with regard to mitigating avoidable impulse buying and adds to extant research on planning prompts. We also document key theoretical and managerial implications of our findings.

## **KEYWORDS**

Planning prompt, implementation intention research, consumer welfare, decisional procrastination, impulse buying, product category, action regulation theory

## **1. INTRODUCTION**

In the past several decades, Impulse Buying (IB) has received much research attention (Fenton-O'Creevy et al., 2018; Iyer et al., 2019). Marketers have an affinity towards IB as it makes consumers lose their self-control and give in to temptations, thereby increasing the revenue of marketers (Mattila and Wirtz, 2008). IB contributes significantly to a firm's sales and profits and so marketers spend considerable resources trying to advocate/promote IB (Iyer et al., 2019;

Verplanken and Sato, 2011). Research has examined extensively, the antecedents that positively contribute to IB (Beatty and Ferrell, 1998; Mohan et al., 2013; Sharma et al., 2010a).

While IB implies positive connotations for marketers (Ozer and Gultekin, 2015), it often leads to excessive unplanned spending (Black, 2007; Horváth et. al, 2015) and severe consumer distress (Fenton-O'Creevy et al., 2018). Rook (1987) found that over 80% of the consumers who made impulse purchases have later experienced negative feelings. Verplanken and Herabadi (2001) argued that buying impulsively led to feelings of regret, remorse, guilt and frustration. Despite the negative connotations of IB on consumers, extant literature has been conservative in dealing with IB.

In order to fill this research gap, Dholakia (2000) suggested impulse resistance strategies in general and called for future research to empirically test the specific operation of volitional systems and other resistance strategies. Following the seminal work of Dholakia (2000), there has also been some exploration on how to suppress IB (Bellini and Aiolfi, 2019; Dhandra, 2020; Dholakia et al., 2005). Based on the literature review in the domain of IB reduction (that we expand upon in the subsequent section), we classify IB suppressors into 3 categories: personality variables, situational variables, and consumer-led strategies. For instance, to suppress IB, we find evidence of the role of personality variables like self-control (Dholakia et al., 2005), situational variables like spatial crowding (Bandyopadhyay, 2020), and consumer-led strategies like developing goals (Massara et al., 2014) (Please refer to Table 1 for a detailed literature review on IB suppressors). It is evident that researchers have primarily dwelt on those strategies that entrust the responsibility of resisting IB entirely on the consumer. Though consumers set out with the intention to purchase only what is needed, they often fail, and are therefore, in need of external intervention to help them resist IB. Thus, it is incumbent upon current researchers to identify specific implementable external interventions that could help consumers mitigate IB. Thus, this research identifies a variable, planning prompt (an

implementation intention intervention) that can act as an external aid to help consumers curb IB.

Planning prompt, an implementation intention intervention, has been studied by past researchers in the consumer behaviour context (Carrera et al., 2018; Milkman et al., 2013; Skår et al., 2011). However, there has been little focus on its effectiveness on preventing undesirable behavior as volitional planning intervention. Although the benefits of planning prompts should not be ignored, existing IB research is marketer-outcome focused and this reflects a missed opportunity to understand the strengths of such volitional planning interventions. The present research tries to fill this gap and responds to Gollwitzer and Sheeran's (2009) specific call to examine the impact of the implementation intention intervention on IB in routine consumer settings. Specifically, the present research investigates if planning prompt can be an effective external intervention in suppressing IB.

Further, as previously noted in research (Milkman et al., 2008; Mishra and Mishra, 2011), consumer behavior differs across product categories of 'vice' and 'virtue' levels. Vice products are tempting and appealing but may not be healthy, while virtue products may be less tempting but provide better health benefits (Wertenbroch, 1998). While consumers find it difficult to resist the temptation of vice products and the instant gratification these products provide, they do not have the same inclination to virtue products. Despite the evidence regarding the role of product category (vice vs. virtue) in consumer decision-making and consumers' difficulty resisting IB, there is no empirical evidence on the influence of planning prompt when product categories vary. Therefore, this research investigates the boundary condition in terms of product category to suggest how planning interventions could inhibit IB. Additionally, not all individuals process information in a similar fashion and they do not exhibit the same degree of readiness to decide on a purchase. The effect of personality on purchasing and purchase-related behavior is well-documented and ubiquitous in extant literature

(Baumgartner, 2002). Even in the IB domain, personality variables like impulse buying tendency (IBT), optimum stimulation level (OSL) and shopping enjoyment (SE) have been shown to impact IB (Mohan et al., 2013). IB is closely related to the decision-making ability of consumers (Rook, 1987). Consumers who take longer to decide on a purchase tend to engage less in IB (Frost and Shows, 1993). Based on such evidence from literature, this research investigates whether the timely decision-making ability of consumers has an impact on the effectiveness of planning prompts in IB reduction. Past literature (Beswick et al., 1988; Ferrari and Emmons, 1994) has suggested that people with a higher level of decisional procrastination take longer to make decisions. Therefore, we examine the interaction of decisional procrastination (defined as the inability to make timely decisions) (Ellis and Knaus, 1979; Janis and Mann, 1977) with planning prompts. In extant literature, decisional procrastination has been treated as a personality trait associated with a lack of conscientiousness (Steel and Klingsieck, 2016; Van Eerde, 2003) and self-regulatory failure (Steel, 2007). As IB is associated with self-regulatory failure (Vohs and Faber, 2007), our study also examines whether a planning prompt can successfully steer a consumer towards a purchase if he/she is indecisive or reluctant to act immediately. Therefore, we examine whether planning prompts would be equally effective for decisional procrastinators who typically ‘put things off’. This research explores whether planning prompts interact with a certain level of decisional procrastination to produce a more effective strategy for consumers to curb IB.

Therefore, the objective of the present study is to address the following questions on IB resistance strategy and thereby advance the theory within the IB domain and guide policy-makers: (1) Do interventions such as planning prompts help customers reduce IB? (2) If so, would its impact on reducing IB differ across product categories of vice and virtue? (3) Further, would its impact on reducing IB differ for individuals with high (vis-à-vis low) decisional procrastination?

We draw on the Action Regulation Theory (ART) (Carver and Scheier, 1982; Hacker, 1985) to develop a conceptual framework. First, while prior research has generally looked at “how to enhance IB so that the marketers benefit” (Mohan et al., 2013; Park and Lennon, 2006), we focus on how to reduce IB so that consumers benefit. Literature dealing with the latter is sparse and we add to this limited stream. Our research builds on and extends literature by suggesting planning prompt as an effective IB reduction strategy. This paper has been credited as being one of the first marketing studies to examine the boundary conditions for the effectiveness of planning prompt in the reduction of IB. It considers the moderating roles of decisional procrastination and type of product (vice/virtue) for reasons that we expand on.

We integrate product category with the study of the negative effects of planning prompt on IB. While previous research has examined the moderating role of product category on the enhancement of hedonic purchase behavior (e.g. Trijp et al., 1996; Thomas et al., 2010), the moderating role of product category in the mitigation of IB remains unexplored. We therefore examine how vice (vis-à-vis virtue) products influence the relationship between planning prompt and IB and demonstrate that the negative influence of planning prompt on IB is not just a standalone effect but a combined one with product category. Finally, this research considers decisional procrastination to be a personality variable. In particular, it shows that the impact of planning prompt (in terms of acting as a resistance strategy to IB) is greater for individuals that rank high on decisional procrastination, as opposed to low. Overall, our study is a novel and timely endeavor that tries to explain how IB can be resisted and under what conditions it is likely to occur.

The purview of this research goes beyond filling the research gap that exists in the study of planning prompts and decisional procrastination in the context of IB reduction. Firstly, planning prompts have been successfully used in areas related to vaccination reception rates (Milkman et al., 2011), delinquency among credit card customers (Mazar et al., 2018), and

increase of fruit and vegetable intake (Luszczynska et al., 2016). Thus, planning prompts have been used to encourage desirable behaviors (e.g. vaccinations) or discourage undesirable ones (e.g. overuse of credit cards). In this research, the undesirable behavior that we wish to reduce is excessive IB. Secondly, they are relatively easier to execute when compared to other IB reduction strategies such as mindfulness (Dhandra, 2020), need for cognition (Lins et al., 2015), self-regulation (Dholakia et al., 2005), and emotional stability (Badgaiyan and Vera, 2014) among others, most of which rely on the consumer's self-control. Planning prompts, on the other hand, can be employed by policy-makers to improve the efficacy of reducing IB. Thirdly, this research includes decisional procrastination, a personality variable that can be identified by policy makers/financial therapists and accordingly applied to consumers (with the IB reduction strategies suggested by this work) on the basis of their degree of decisional procrastination. Additionally, this research considers the role of type of product and offers policy makers robust ways to reduce IB of harmful vice products.

The paper is structured as follows. In the next section, we present the literature review pertaining to IB suppressors, planning prompt, decisional procrastination, and ART. We then integrate the research in these fields to advance three hypotheses. To that end, we conduct two studies (Study 1: a vignette-based experiment; Study 2: a field experiment) to test our hypotheses empirically. We discuss our findings, which include theoretical contributions, implications for practitioners and policymakers, limitations, and directions for future research.

## **2. LITERATURE REVIEW**

### **2.1 IB and its suppressors**

IB as a domain has been growing substantially over the last several decades (multiple reviews and meta-analyses by Iyer et al., 2019; Amos et al., 2014; Muruganantham and Bhakat, 2013). However, prior research on IB has predominantly presented the marketers' perspective and



focused on how IB can be enhanced (Badgaiyan and Verma, 2015; Beatty and Ferrell, 1998; Mohan et al., 2013). On the other hand, very few studies (Bellini and Aiolfi, 2019; Dholakia, 2000; Massara et al., 2014; Vohs and Faber, 2007) have investigated IB from the customers' perspective and indicated how IB can be suppressed, curbed or reduced. Research by Dholakia (2000), suggested impulse resistance strategies in general and sought future research to empirically test the specific operation of volitional systems and other resistance strategies, thereby turning the domain's attention to suppressors, reduction strategies and pertinent interventions to curb IB.

Dholakia (2000) introduced a model termed CIFE (Consumption Impulse Formation and Enactment) through which he posits impulse formation enablers like trait impulsivity, situational variables (e.g. going to a store immediately after getting one's monthly pay) and marketing variables (g. physical proximity to products in the store). Dholakia (2000) also highlights possible inhibitors to the formation of the consumption impulse – current impediments to impulse formation (e.g. not having enough money), consideration of negative long-term consequences (e.g. an overweight person tempted by ice cream may think twice about buying it on impulse) and anticipatory emotions (e.g. feeling good if one realises one can overcome an impulse). By means of two experiments, Dholakia (2000) creates conditions dissonant or consonant with IB enactment.

Based on a deeper understating of this seminal work, the literature that has dealt with IB resistance after Dholakia (2000) identifies the following categories of factors (that inhibit IB): related to personality (e.g., self-control), situational (e.g. enactment of IB now mitigates IB next time around) and strategies consumers can use themselves to reduce IB (e.g. self-control exercises). We briefly expand on these three broad themes. We delved into literature reviews of studies that have cited Dholakia (2000) in order to understand the presence of suppressor or resistance strategies for IB. This approach allowed us to clearly identify the gaps

and also to examine the effectiveness of planning prompt as an implementation intention to curb IB and boundary conditions for the same. Dholakia (2000) has been cited 457 times till date. Of these, we do not consider 222 papers that were either doctoral theses or those written in languages other than English or those that were printed in journals of little repute. Some of them were also not available online. Of the remaining papers, 147 (62.6 %) deal with IB enhancement, 23 (9.8 %) deal with IB reduction, 33 (14 %) deal with both IB reduction and enhancement and 32 (13.6 %) deal with other issues.

The research in Table 1 shows prior research on suppressors, reduction strategies and interventions to reduce IB citing Dholakia (2000). The IB resistance or reduction literature identifies certain personality variables that inhibit IB like self-control (Sultan et al., 2012; Efendi et al., 2019; Iyer et al., 2019; Moayery et al., 2019), prevention focus (Costa et al., 2018), mindfulness (Dhandra, 2020), self-monitoring (Sharma et al., 2010a, Sultan et al., 2012) and self-esteem (Bandyopadhyay, 2017; Dhandra, 2020). Some situational variables that inhibit IB (culled from the body or work that quotes/corroborates Dholakia (2000) in the IB reduction domain) are cognitive accessibility (Haynes et al., 2014), sequential mitigation effect (if a consumer is part of an impulsive task at time “t”, the propensity to choose on impulse is reduced at time “t+1”) (Dholakia et al., 2005; Sultan et al., 2012), post purchase experience (Mittal et al., 2018; Spiteri Cornish, 2020) and spatial crowding (Bandyopadhyay, 2020). Consumer strategies to reduce IB include going in accordance with implementation intentions and forming the goal of restraint (Mau et al., 2019). Other inhibitors of IB may include negative affect (Parsad et al., 2019).

In sum, the key takeaways that emerge from a review of past research include:

1) The onus of resisting IB is on the consumer (developing traits that inhibit IB or devising strategies to reduce IB) or 2) Specific situations may hinder IB. However, both of the above may either be difficult (e.g., developing specific traits to reduce IB) or outside the control of

policy makers (e.g., specific situations hindering IB). From this perspective, there is a lack of research that focuses on what policy makers can do to inhibit IB. Can there be an external intervention that could work as a volitional strategy and reduce undesirable IB? Extant literature (Milkman et al., 2011, 2013; Handel and Kolstad, 2017) in health psychology and economics reveals the effectiveness of implementation intentions, including planning prompts, to exhibit healthy behavior. Barring a few exceptions (Mazar et al., 2018), research on planning prompts in marketing literature is limited. The same is evident from the review of 235 papers that suggest a paucity of research on the use of planning prompts in the domain of IB reduction and boundary conditions to check where planning prompt strategies could work best. The meta-analysis by Gollwitzer and Sheeran (2006) indicates the possibility of moderators influencing the relationship between planning prompt and behavior.

Despite the absence of empirical evidence, studies (Van Eerde, 2003) have indicated decisional procrastination to be a possible moderator between planning prompt and behavior. Although IB is found to be different for vice vis-à-vis virtue products in extant research (Zhang et al., 2010; Parreño-Selva et al., 2014), not many studies have examined the moderating role of product category in the relationship between planning prompt and IB reduction. Considering this, factoring in decisional procrastination and product type as drivers in IB reduction would enrich existing literature. For instance, the effect of planning prompt on IB would be different in the case of consumers with decisional procrastination and when based on the type of product available at hand.

Hence, in this research, we attempt to fill the specific gaps delineated above. In doing so, we respond to the calls of Dholakia (2000) to examine resistance strategies of IB and that of Gollwitzer and Sheeran (2009) to study the generalizability and effectiveness of planning prompts in routine consumer settings like retail stores. We position our study in the current

debate on the effectiveness of volitional systems (Gollwitzer and Sheeran, 2009) by examining the impact of planning prompt on impulse buying.

< Insert Table 1 about here >

## **2.2 Planning Prompt**

Planning prompt is a well-grounded construct in literature in the field of planning. Ajzen (1991) suggested that planning is central to the social psychological models of goal pursuit as a path by which current intentions can be translated into future actions. Even when intentions are strong, many goals fail to be achieved due to their lack of implementation. This intention - implementation gap can be filled by planning prompts (Rogers et al., 2013). Planning prompts encourage individuals to elaborate on their implementation strategies while their intentions are still vivid (Gollwitzer and Sheeran, 2006). For instance, let us consider that John goes shopping in a mall with multiple sections. Before he goes shopping, he is presented with an email that contains a set of questions asking him what he plans to buy and which sections he is planning to visit. In this scenario, the questions he answers before shopping act as planning prompts.

Planning prompts have been widely studied in the context of consumer psychology. For example, Milkman et al. (2011) found that the inclusion of planning prompts in emails increased vaccination rates among employees. Milkman et al. (2013) later found that planning prompts also increased colonoscopy reception rates significantly. Handel and Kolstad (2017) indicated that planning prompts delivered through web-based planning tools had a significant impact on health behaviors such as sleep and exercise. However, some studies (Carrera et al., 2018; Skår et al., 2011) found that planning prompts were ineffective in changing regular physical activity habits. This ineffectiveness was attributed to low adherence to the intervention protocol, largely because the planning prompts were delivered through the internet.

< Insert Table 2 about here >

Although past research (See Table 2) has investigated planning prompt in the consumer behavior context, there is paucity of research relating it to IB since most of the research in the planning prompt domain has revolved around the theories of self-regulation (Bellini and Aiolfi, 2017; Sultan et al., 2012).

### **2.3 Action Regulation Theory (ART)**

ART is a behavior-oriented cognitive theory that can be related to human behavior (Frese and Zapf, 1994). It is concerned with the process that intervenes between environmental inputs and behaviors: the regulatory function of cognition (Frese and Zapf, 1994). The theory is based on the idea that planning is an essential component of self-regulation (Carver and Scheier, 1982; Hacker, 1985). It suggests that goals and plans are relevant parameters for regulating one's actions (Hacker, 1985). An action sequence consists of the following steps: goals, information collection, planning, execution and feedback (Frese and Zapf, 1994). Individuals monitor their environment and gather information that aids them in making plans. The execution of these plans actively influences the environment in a way such that it benefits the individual. The results are feedback regarding one's actions.

In a similar vein, past research (Dai et al., 2012; Dreher and Brown, 1993) has suggested that a planning intervention/planning prompt helps reduce distraction from a goal. Furthermore, Sitzmann and Johnson (2012) used ART to investigate the impact of planning intervention on trainees' learning processes and reported that planning intervention targets the initial phase of the self-regulatory learning process, thereby reducing attrition among trainees.

Since self-regulation is the basis of ART (Frese and Zapf, 1994), it has been widely used in consumer behavioral contexts (for example, Raabe et al., 2007; Zeelenberg and Pieters, 2007). Furthermore, self-regulation has been mentioned as an IB suppressor (Punj, 2011;

Verplanken and Sato, 2011). Based on such evidence from past literature, we use ART as the basis for our conceptual framework.

### **3. HYPOTHESES DEVELOPMENT**

#### **3.1 Planning Prompt and IB**

While goal setting has a moderate impact on behavior (Sheeran and Webb, 2016), it may not be able to control strong urges felt in the face of temptation. Implementation-intention interventions (Gollwitzer, 1999; Gollwitzer and Sheeran, 2006) however with if-then plans are expected to lead to goal attainment. Planning prompt is a kind of implementation intention (Gollwitzer, 1993) that is employed as a self-regulatory strategy and aims to help individuals plan. Individuals are often required to decide when and where they will act and implementation intentions guide in this regard. They help people reduce the ‘intention - behavior gap’. Sheeran and Orbell (1999) advocated the inclusion of implementation intentions in the Theory of Planned Behavior (Ajzen, 1991) to deepen the understanding of the relationship between intention and behavior. Gollwitzer (1999) proposed two phases: first, a motivational phase that involves the selection of an action; and second, a volitional phase that is concerned with the implementation of the selected action. While good intentions are crucial (Sheeran et al., 2005), they may not be sufficient for behavioral enactment. While the Theory of Planned Behavior focuses on the relevance of the motivational phase of behavioral enactment, Gollwitzer’s (1999) implementation intention strategy offers insights into ways to effectively overcome impediments during the volitional stage.

We argue that planning prompt could act as an implementation intention strategy that helps an individual plan his/her shopping inside the store. Once the plan is made, the individual enters the retail shop to buy the merchandise. During the execution of the plan, he/she might encounter distractions (for example, an individual may feel an urge to buy a product that she

had not planned to buy). However, planning prompt reduces the distractions from alternative/competing goals (Sitzmann and Johnson, 2012), such as IB in the volitional stage. This can be explained in the form of a simple if-then plan (Gollwitzer, 1999) where the if-part pertains to the situation (e.g. strong urge after coming across tempting products inside the store) and the “then-part” refers to the consequences (e.g. stick to the shopping plan made prior to entry) (Webb and Sheeran, 2007). The consumers tend to activate the goal-directed response (buy as per the plan) immediately after getting exposed to the situation inside the store. Hence:

H1: Planning prompt has a negative relationship with IB.

### **3.2 Moderators**

Furthermore, we intend to study the types of products and customers for which/whom planning prompt would be most effective. Extant literature dwelling on the relationship between implementation intentions and behavior presents mixed findings. One stream of research reveals that implementation intentions have a positive effect on behavior (Gollwitzer and Sheeran, 2006) while another set of studies (e.g., Rutter et al., 2006) shows no effect at all. Moreover, meta-analyses (Gollwitzer and Sheeran, 2006) reveal significant variations in effect size, suggesting that moderators play an important role in the relationship between implementation intention and behavior. Therefore, we propose that certain moderators would have an impact on the strength of the relationship between planning prompt and IB.

#### **3.2.1 Moderating role of product category**

Extant IB literature shows that the incidence of IB is not consistent across all products. It occurs more in some products than others (Rook, 1987; Vohs and Faber, 2007). Past studies (Jones et al., 2003) have examined the impact of a few IB antecedents on actual IB to ascertain whether it is consistent across product categories. Their findings suggest that the impact of the Impulse Buying Tendency (IBT) on IB is product category - specific. In light of product category -

specific research (Jones et al., 2003; Rook, 1987) in the IB domain, we expect planning prompt to work differently across a variety of product categories.

One of the accepted basis for classifying product categories (especially in the ‘food’ context) is the level of ‘vice’ and ‘virtue’ attributes in products (Milkman et al., 2008; Mishra and Mishra, 2011). Vice products (products such as ice cream, chocolates and chips associated with a high level of ‘vice’ attributes) provide immediate gratification but are not healthy in the long term. On the other hand, virtue products (products such as buttermilk, oat cookies and salad associated with a high level of ‘virtue’ attributes) are not particularly tempting but provide potential health benefits in the long run. In the current IB stream of research also (Parreño-Selva et al., 2014; Zhang et al., 2010), IB is found to be different for vice vis-à-vis virtue products. Considering the differences between vice and virtue products, we expect product category (vice vis-à-vis virtue) to moderate the relationship between planning prompt and IB.

Rook and Fisher (1995) suggested that the urge to buy impulsively is an important antecedent of IB and that normative influence moderates the relationship between the urge to buy and IB. Their research presented conceptual and empirical evidence that consumers’ normative evaluations (i.e. judgment about the appropriateness of engaging in IB) moderate the relationship between the urge to buy and actual IB such that the relationship is stronger when consumers think that acting on an impulse is appropriate. In line with their findings, we argue that virtue products provide long term benefits and hence, purchasing such products is normatively right (Olsen et al., 2014). Therefore, even if a planning prompt is provided for virtue products, positive normative evaluations could overcome the impact of planning prompt. Therefore, reduction in IB due to the presence of planning prompts could be lower for virtue products. On the contrary, vice products are naturally tempting and sans long term advantages. Consuming vice products is therefore normatively wrong (Olsen et al., 2014). This suggests



that when planning prompt is provided for vice products, there could be a substantial reduction in IB.

Additionally, IB is considered normatively wrong (Rook and Fisher, 1995). Hence, consumers feel some guilt in displaying IB (Rook, 1987; Yi and Baumgartner, 2011). When a planning prompt is provided to consumers for a vice product, they are unable to overcome this guilt/cognitive dissonance (Mishra and Mishra, 2011; Thomas et al., 2010); the reason being that the product is inherently 'sinful'. However, when a planning prompt is provided for a virtue product, consumers may not feel the same level of guilt or dissonance. Even if they have this dissonance, they are able to reduce it easily (vis-a-vis vice products) since virtue products are inherently good for them. Thus, they may rationalize/justify that there is nothing wrong in consuming a product that is inherently good for them. Hence:

H2: Product category moderates the negative relationship between planning prompt and IB such that the (negative) relationship (between planning prompt and IB) is stronger for vice products as compared to virtue products.

### **3.2.2 Moderating role of decisional procrastination**

The most difficult moment in any IB situation comes immediately after the impulse to buy is first felt (Rook, 1987). All consumers do not exhibit the same degree of readiness to resist IB. Consumers possess different personality traits and hence varying abilities to process information. Decisional procrastination, which is defined as the inability to make timely decisions when faced with conflicts and choices (Ellis and Knaus, 1979; Janis and Mann, 1977), is one such personality trait (Steel and Klingsieck, 2016; Van Eerde, 2003). There is strong evidence that people with a higher level of decisional procrastination take longer to make decisions (Beswick et al., 1988; Ferrari and Emmons, 1994; Frost and Shows, 1993).

This motivated us to empirically test whether decisional procrastination can play a moderating role in the relationship between planning prompt and IB.

According to Janis and Mann (1977), decisional procrastination is a defensive avoidance maladaptive mechanism adopted by consumers. We investigate whether the relationship between planning prompt and IB would be accentuated with high (vis-à-vis low) decisional procrastination. In accordance with Van Earde's (2003) definition, high decisional procrastinators can accelerate the implementation intention strategy by using a planning prompt to support desirable behavior, such as a purchase plan. Furthermore, we argue that when such a planning prompt is given, customers with a high decisional procrastination tendency would postpone their impulse purchases more than those with a low decisional procrastination tendency. This is arguably because the purposive postponement of a decision to buy when faced with a choice in a specific time frame gives high decisional procrastinators time to deliberate on and possibly control IB. Hence:

H3: Decisional procrastination moderates the negative relationship between planning prompt and IB such that the (negative) relationship (between planning prompt and IB) is stronger (weaker) for high (low) decisional procrastinators.

## **4. METHOD**

Two studies were conducted to test the hypotheses. Study 1 was a vignette-based experiment based on hypothetical buying scenarios, while Study 2 was a field experiment in a mall aimed to establish generalizability.

### **4.1 Study 1**

#### **4.1.1 Sample and Data Collection**

We used a sample of 200 undergraduate adult students from a large university in India who participated in this study voluntarily in return for a partial course credit. The study was designed

taking a cue from past research (e.g., Rook and Fisher, 1995) that has used hypothetical buying scenarios to collect data. The subjects were asked to select one of a set of purchase alternatives in a hypothetical buying scenario. In line with past research, this was considered a measure of IB (Dholakia, 2000). Following the selection of the behavior, the subjects responded to multiple measures, the details of which will now be described.

### *Measurement of Planning Prompt*

We designed a total of four buying scenarios (planning prompt - vice, no planning prompt - vice, planning prompt - virtue, no planning prompt - virtue). It was thus a 2\*2 fully cross-factorial design with **two** types of products (vice versus virtue) and planning prompt (present versus absent). A group of 50 subjects was randomly exposed to one of the scenarios (thus,  $n = 200$ ). In order to ensure that randomization was successful, the authors followed the procedure suggested by Ouellet et al. (2015) to check whether there are significant statistical differences across conditions for the following variables: age, self-discrepancy, shopping enjoyment, self-control, self-monitoring, stress reaction, and gender. The results of ANOVA for the first six listed continuous variables are presented in Table 3a, which shows that the differences are not statistically significant. This indicated that randomization was successful for these continuous control variables.

< Insert Table 3a about here >

Since the gender variable was categorical in nature, we conducted a chi square test. The chi square was not statistically significant (Chi square = 2.168,  $df = 3$ ,  $p = 0.538$ ), indicating that randomization was successful even for gender.

Appendix A presents all of the four hypothetical buying scenarios designed for Study 1. We used one-way ANOVA to check whether our manipulation for planning prompt (vis-à-vis no planning prompt) was successful. The results indicated that the manipulation was successful ( $M_{\text{planning prompt}} = 1.61$ ,  $M_{\text{no planning prompt}} = 4.05$ ,  $F(1, 198) = 514.59$ ,  $p = 0.000$ ). Further, the

respondents were asked to indicate (on a scale of 1-7) whether they think that Geeta (the lady in the hypothetical buying scenario) had received planning cues before she entered the grocery shop. This rating was then considered a perceived planning prompt to test the hypothesis.

#### *Measurement of Impulse Buying Behavior*

After reading the hypothetical buying scenario, the respondents were asked to select one of five purchase alternatives they think Geeta should choose. These alternatives were designed in line with past research in this field (Rook and Fisher, 1995) to capture the level of impulsiveness in purchasing decisions. There were five such levels to measure impulsiveness, ranking from low to high, which are presented along with their respective hypothetical buying scenarios in Appendix A.

#### *Measurement of decisional procrastination and control variables*

Decisional procrastination was measured on the Decisional Procrastination Scale (DPS) (Mann, 1982; Cronbach alpha 0.7). To substantiate that IB captured in the study was exclusively due to the planning prompt, the authors engaged other antecedents that could affect IB from past literature as control variables in the study. Pre-established scales were used to measure these variables: self-discrepancy (Dittmar, 2005), shopping enjoyment (Beatty and Ferrell, 1998), self-control (Youn and Faber, 2000), self-monitoring (Lennox and Wolf, 1984), and stress reaction (Youn and Faber, 2000). Finally, the subjects reported demographic variables such as gender and age.

### **4.1.2 Analyses and Results**

#### *Test for Common Method Bias (CMB)*

Since we collected the criterion and predictor variables from the same source, Common Method Bias (CMB) could be an issue (Podsakoff et al., 2003). To mitigate CMB, this research embedded questions between the criterion and predictor variables such as self-control and self-

discrepancy in line with Podsakoff et al. (2011). The authors also tested for CMB statistically. The Harman's single factor test (Harman, 1967) was adopted and results showed that the single factor accounted for only 37.5% of the variance, which was far less than the suggested threshold of 50% (Podsakoff et al., 2003). Thus, CMB was not an issue in Study 1.

#### *Test for Multicollinearity*

Table 4a shows means, standard deviations and Pearson correlations between all the variables of interest in Study 1. These include the dependent variable, IB; the independent variable, planning prompt; the moderating variable, decisional procrastination; and control variables. The control variables, consistent with past research in this genre, were age (Ferrari et al., 2009), self-discrepancy (Luna-Arocas, 2008), shopping enjoyment (Beatty and Ferrell, 1998), self-control (Sultan et al., 2012), self-monitoring (Sharma et al., 2010a), and stress reaction (Youn and Faber, 2000). The authors measured and added all the control variables in the regression model. The study examined Variance Inflation Factors (VIF) and found none above 1.11, which is much below the standard acceptable threshold of 10 (Dagger et al., 2007; Thompson and Prendergast, 2015). This suggested that multicollinearity was not a problem and we therefore ran the regression.

< Insert Table 4a about here >

#### *Test for Heteroskedasticity*

In line with recent research (Andani and Wahyono, 2018; Hendrawan and Nugroho, 2018), we performed the heteroskedasticity test (Glejser, 1969) to ensure that the residuals were approximately normally distributed in the regression analysis. We present the results of the Glejser test for Study 1 in Table 5a, which indicates that heteroskedasticity was not a problem (Sig. value of planning prompt is 0.191 which is greater than 0.05). Therefore, we used OLS regression in SPSS for further analysis.

< Insert Table 5a about here >

### *Regression Analysis*

The regression model represented a good fit ( $R^2_{adj} = 0.72$ ,  $f(1, 198) = 520.46$ ,  $p = 0.000$ ) and the results revealed a significant negative relationship between planning prompt and IB ( $\beta = -0.85$ ,  $p = 0.000$ ), thus supporting H1.

To test the moderating role of product category (H2), the study used PROCESS Model 1 (Hayes, 2017). In line with H2, the results showed a significant interaction ( $b = 0.37$ ,  $SE = 0.03$ , 95% confidence interval,  $[CI] = [0.32, 0.42]$ ) indicating that product category moderates the relationship between planning prompt and IB, which supports H2. Furthermore, to corroborate the finding, a regression analysis was performed separately for vice and virtue products. The results showed that the relationship between planning prompt and IB is stronger for vice ( $\beta_{ice-cream} = -0.964$ ,  $p = 0.000$ ) vis-à-vis virtue products ( $\beta_{juice} = -0.785$ ,  $p = 0.000$ ). In order to further check whether the difference between regression coefficients ( $\beta$  values) for vice and virtue products is significant, we used the multi - group analysis AMOS Plug - in (Gaskin and Lim, 2018). The results showed that the difference in Betas was significant (Difference in Betas = 0.179,  $p = 0.000$ ), which supported H2. Fig. 1 represents the moderating role of product category (vice vis-à-vis virtue) in the relationship between planning prompt and IB.

< Insert Fig. 1 about here >

Similarly, to test the moderating role of decisional procrastination in the relationship between planning prompt and IB (H3), we again used PROCESS Model 1 (Hayes, 2017). In line with H3, the results showed a significant interaction ( $b = -0.1$ ,  $SE = 0.008$ , 95% confidence interval,  $[CI] = [-0.12, -0.09]$ ), indicating that decisional procrastination moderates the relationship between planning prompt and IB. This suggests support for H3. Fig. 2 represents the

moderating role of decisional procrastination (high vis-à-vis low) in the relationship between planning prompt and IB.

< Insert Fig. 2 about here >

#### **4.1.3 Discussion**

The results of Study 1 supported the hypothesis that planning prompt has a negative relationship with IB and that this relationship is stronger for vice products (vis-à-vis virtue products) and for individuals with high (vis-à-vis low) decisional procrastination. Although the results of Study 1 supported the hypotheses, we wanted to replicate the findings in an actual buying scenario. Past research (Rook and Fisher, 1995; Sharma et al., 2010a) has suggested that using a mall-intercept approach to testing the hypotheses with actual retail shoppers ensures that there is a greater heterogeneity in the sample, leading to greater confidence in generalizing the results. Hence, Study 2 was conducted with a real shopper sample in a mall setting. Study 2 was undertaken for three specific reasons. The first was to examine the multi dimensional relationship between planning prompt, decisional procrastination, product category and IB among a more diverse sample of non-student participants. The second reason was to test the relationship in an actual retail shopping environment, which is closer to a natural setting. Moreover, this allowed us to examine the actual IB soon after its occurrence. Third, we used actual IB as a dependent variable instead of urge to buy. A few studies in the IB domain have considered urge to buy as a close proximate of IB and hence considered it as a proxy for measuring IB (e.g. Beatty and Ferrell, 1998; Chen et al., 2019). However, past research has also warned that although the urge to buy impulsively is a close proximate of IB, there could be times it might not convert into actual IB (Beatty and Ferrell, 1998; Sharma et al., 2010a). Hence, we planned to conduct Study 2 in order to capture actual IB.

## **4.2 Study 2**

### **4.2.1 Sample and data collection**

In line with Mohan et al. (2013) and Sharma et al. (2010a), we used a mall intercept approach during a four-week period to survey shoppers as they exited a large grocery mall. Initially 470 shoppers were contacted and informed about the study at the mall entry gate. Of these, 210 shoppers (45%) agreed to participate. The response rate was within the range of 37-48%, as reported in prior research which had a similar approach (Sharma et al., 2010a). No significant differences were found between the demographics (age, gender and occupation) of the participants of this study and non-participants (those who declined to participate in the study). Thus, the possibility of sampling bias due to self-selection was limited. The elimination of responses with excessive missing values left us with a final sample of 200 (43% response rate), with more females (59%) than males (41%) and an average age of 35 years.

In this study, as a part of their final year project, two trained undergraduate students intercepted and interviewed actual grocery shoppers about their recent purchases in the mall and the extent of IB in their purchase decisions. In addition to providing planning prompts at the entry gate (for the treatment group shoppers), the student investigators checked the shoppers' shopping baskets at the exit gate of the mall. Furthermore, the investigators asked the shoppers about their vice and virtue perceptions of the food products they had purchased. This procedure provides a realistic assessment of the actual purchase behavior of retail grocery shoppers (Beatty and Ferrell, 1998).

A large grocery shopping mall in India was chosen because of its high traffic and elevated degree of in-store browsing. We collected the data over a four-week period, rotating the times of the day and the days of the week in order to obtain a sample representative of the population of shoppers at this mall during the period. All the participants entered a lucky draw with prizes of sizable gift certificates that were redeemable at the same mall. A total of five gift



certificates worth INR 200 each (at the time of conducting the mall survey, USD 1 was approximately INR 70) were given away as prizes. After the participants answered the questions at the mall exit gate, the members of the survey team debriefed them with regard to the purpose of the study.

#### **4.2.2 Procedure**

Initially, the actual purpose of the study was hidden from the participants in order to rule out any bias in their responses (Shiv and Federokhin, 1999). At the mall entry gate, shoppers were informed that the study was about the impact of store ambience on their shopping behaviour. If they agreed to participate, they were instructed to fill out a questionnaire before entering the mall. At the exit, they were asked a few questions about the items they had bought.

We randomly assigned subjects to one of the two conditions (planning prompt and no planning prompt) as they entered the mall. For example, the first person entering the mall was assigned to the planning prompt condition, the second to the no planning prompt condition, the third to the planning prompt condition and so on and so forth. In order to ensure successful randomization, we tested the following variables across conditions: age, self-discrepancy, shopping enjoyment, self-control, self-monitoring, stress reaction, and gender. The results of ANOVA (for the first six listed continuous variables) are presented in Table 3b which shows that the differences are not statistically significant. Hence, the subjects were randomly assigned to the experimental conditions successfully.

< Insert Table 3b about here >

In line with Study 1, we conducted a chi square test for gender. The chi square for Study 2 was not significant (Chi square = 0.081, df = 1, p = 0.776) and the randomization was successful. For the participants “in treatment the group” (100 participants), the questionnaire had two questions: “Which sections of this mall will you be visiting?” and “What specific items

will you look for in this shopping trip?" These questions were asked in order to provide planning prompts to the shoppers before they entered the mall. This planning prompt manipulation was done in line with past research (Dreher and Brown, 1993). The planning prompts were not present in the questionnaire given to the control group (100 participants). Thus, Study 2 was a field experiment in a mall setting. We used a one-way ANOVA to ensure that our manipulation for planning prompt (vis-à-vis no planning prompt) was successful. The results indicated that the manipulation was successful ( $M_{\text{planning prompt}} = 0.1$ ,  $M_{\text{no planning prompt}} = 0.6$ ,  $F(1, 198) = 1016.53$ ,  $p = 0.000$ ). Furthermore, we asked the participants to indicate (on a scale of 1-7) whether they thought they had received some planning cues before entering the mall. This was done to ensure the success of the planning prompt manipulation. The manipulation check was used as a measure for planning prompt in the subsequent data analysis. As was the case for Study 1, the authors measured all other independent and control variables with standard scales and demographic variables including gender, age and occupation.

After the participants completed the questionnaire at the entry gate, they were asked to come to the interview counter at the exit gate once they had completed their shopping. At the exit gate, the members of the survey team checked the shopping baskets of the participants with their consent. As the study is related to 'food' as a product category (vice and virtue food products), food items from their shopping baskets were separated. The members of the survey team asked the participants, 'Does this item give you immediate pleasure/long term benefits?' and 'Is this item unhealthy/ healthy?' From their responses, we classified the products into 'vice' (unhealthy and immediate pleasure) and 'virtue' (healthy and long-term benefits) categories.

Furthermore, in order to assess the level of impulsiveness in the purchase decision, the investigators recorded the total number of food items bought by participants. Shoppers described each of the purchases as planned or unplanned, in line with the approach followed

by Beatty and Ferrell (1998) and Mohan et al. (2013). To eliminate the items that pertained to reminder purchases, the investigators asked the participants: “When you saw this item, were you reminded that you were out of this item and needed it?” Only those purchases which were unplanned and not considered reminder purchases were considered to be pure impulse buys. Finally, the level of impulsiveness in the purchase decisions made by each shopper (IB) was calculated by dividing pure impulse purchases by total number of purchases. Investigators asked whether each item the shopper had bought was planned/unplanned. Let’s assume he/she mentioned that four of the ten items he bought were unplanned. For each of the unplanned items, the investigator asked, “When you saw this item, were you reminded that you had run out of this item and needed it?” Let’s assume again that he/she mentioned that one item was a reminder purchase. That item was removed. Therefore, for this shopper, IB was calculated as three (total impulse purchases) out of ten (total purchases).

From the vice and virtue responses obtained from the shoppers, we classified the total number of purchases into ‘total vice’ and ‘total virtue’ categories. Next, pure impulse purchases were classified into ‘vice impulse’ and ‘virtue impulse’ categories.  $IB_{vice}$  was then calculated by dividing vice impulse by total vice, whereas  $IB_{virtue}$  was calculated by dividing virtue impulse by total virtue. To give an example, assume that the shopper in the previous example stated that five of the ten items he/she had bought were vice products and five were virtue products. Among these vice and virtue categories, we repeated the same process as above and asked him/her about unplanned and reminder purchases. He/she said that three out of five vice product purchases were unplanned and that no item was a reminder purchase. Therefore,  $IB_{vice}$  was calculated as three (vice impulse)/five (total vice). For the virtue products he/she had bought, he/she mentioned that all the products were planned. Hence,  $IB_{virtue}$  was calculated as 0 (virtue impulse)/ 5 (total virtue).

### 4.2.3 Data analysis and findings

In Study 2, we collected responses from subjects and computed the DV from these. Thus, the dependent and independent variables came from different sources, precluding the presence of the common method bias (Podsakoff et al., 2011). Further, we tested for multicollinearity and heteroskedasticity in a manner similar to that of Study 1. Table 4b shows means, standard deviations and Pearson correlations between all the variables of interest in Study 2. We examined Variance Inflation Factors (VIF) and found none above 1.06, which is substantially below the standard acceptable threshold of 10 (Dagger et al., 2007; Thompson and Prendergast, 2015) indicating no evidence of multicollinearity.

< Insert Table 4b about here >

We tested for heteroskedasticity (Glejser, 1969) just like we did in Study 1. The results of the Glejser test for Study 2 indicated that heteroskedasticity was not a problem (Sig. value of planning prompt is 0.169 which is greater than 0.05). Therefore, we used OLS regression in SPSS for further analysis. The results of the Glejser test for Study 2 are presented in Table 5b.

< Insert Table 5b about here >

The results of the regression analysis indicated that the control variables were not significant. Hence, we do not discuss these further. The regression model indicated a good fit with significant  $R^2_{adj}$  value for IB ( $R^2_{adj} = 0.82$ ,  $f(1,198) = 880.5$ ,  $p = 0.000$ ). The results revealed that planning prompt relates negatively with IB ( $\beta = -0.89$ ,  $p = 0.000$ ), thus supporting H1.

To test whether the negative relationship between planning prompt and IB is stronger for vice products as compared to virtue products (H2), we performed separate regression analyses for vice and virtue products. As  $IB_{vice}$  and  $IB_{virtue}$  were computed by the procedure mentioned above, we used these variables directly as dependent variables in our regression models. The results showed that the relationship was stronger for vice products ( $\beta = -0.87$ ,  $p = 0.000$ ) as

compared to virtue products ( $\beta = -0.57, p = 0.000$ ). Similar to Study 1, this study also used a multi-group analysis AMOS Plug-in (Gaskin and Lim, 2018) to check whether the difference between the regression coefficients ( $\beta$  values) for vice and virtue products is significant. The results showed a significant difference in Beta values (Difference in Betas = 0.3,  $p = 0.000$ ), indicating support for H2. Fig. 3 represents the moderating role of product category (vice vis-à-vis virtue) in the relationship between planning prompt and IB.

< Insert Fig. 3 about here >

Next, in line with Study 1, we used PROCESS Model 1 (Hayes, 2017) to test the moderating role of decisional procrastination in the relationship between planning prompt and IB (H3). The results showed a significant interaction ( $b = 0.01, SE = 0.004, 95\%$  confidence interval,  $[CI] = [0.0004, 0.0198]$ ), suggesting the moderating role of decisional procrastination in the relationship between planning prompt and IB. This indicates support for H3. Fig. 4 represents the moderating role of decisional procrastination (high vis-à-vis low) in the relationship between planning prompt and IB.

< Insert Fig. 4 about here >

Table 6 represents a summary of the results of Study 1 and Study 2.

< Insert Table 6 about here >

## **5. GENERAL DISCUSSION**

Literature on IB has generally dealt with enhancing benefits for marketers (Beatty and Ferrell, 1998; Sharma et al., 2014). However, IB harms consumers in many ways (Fenton-O'Creevy et al., 2018) and research does not study how to curb it. Despite being aware of the harmful effects of IB (Pradhan et al. 2018), consumers often fail to resist their temptations and end up buying impulsively and regret later. In line with this reasoning, planning prompt emerged as a

strong predictor to reduce IB. We followed a robust research design that included two studies – one a vignette-based experiment and the other a field experiment in a shopping mall setting. We found that planning prompt has a negative relationship with IB and is stronger for vice (vis-à-vis virtue) products. The consumer trait of decisional procrastination moderated this effect and consumers with high (vs. low) decisional procrastination reported low levels of IB. The results suggest that planning prompt, product type and the decisional procrastination have a crucial role to play in reducing IB, which is critical from a consumer welfare standpoint. We next discuss the theoretical and practical implications of our study.

### **5.1 Theoretical Implications**

Our study extends theory and research on IB in several ways. IB research in general has predominantly studied ways to enhance IB (Iyer et al., 2019; Sharma et al., 2010a; Verplanken and Sato, 2011); however, some research has also studied how IB can be reduced. The seminal work of Dholakia (2000) spawned work in this area. While Dholakia (2000) made an important contribution in identifying IB suppressors and suggesting impulse resistance strategies in general, he did not study planning prompt in particular; neither did he consider decisional procrastination and product type. He called for future research to empirically test the specific operation of volitional systems and other resistance strategies. His work may have identified personality variables like self-control (Sultan et al., 2012; Efendi et al., 2019; Iyer et al., 2019; Moayery et al., 2019), situational variables like not having enough time or money (Chang et al., 2014) and consumer strategies like self-control exercises (Sultan et al., 2012), but it has not considered planning prompts, and moderators like decisional procrastination or type of product; our work fills these gaps in this line of research. We delineate details below.

First, we contribute to the IB literature by taking a customer-centric perspective and focusing on preventing undesirable behavior such as IB. By viewing IB through the lens of ART, our study enriches the hitherto sparse literature on IB resistance strategies. Prior research

has predominantly focused on underlying factors that increase IB (Amos et al., 2014). While these factors undoubtedly enable managers to strengthen/enhance IB, some studies consider this strategy to be normatively wrong (Rook and Fisher, 1995) as it may result in consumers making unwanted/unwarranted purchases (Horváth et al., 2015). Our study is novel in that it offers new insights that encourage consumers to adhere to their pre-decided purchase plan and thereby resist IB.

Second, we respond to Gollwitzer and Sheeran's (2009) call to study the generalizability and effectiveness of planning prompts in routine consumer settings. Research in this genre has generally focused on health related behavior like sleep, exercise, and the way we receive medical treatment such as colonoscopy (Handel and Kolstad, 2017; Milkman et al., 2013). As such, it has suggested that planning prompt can reduce the gap between intention and behavior and thus share a positive relationship with these health-related behaviors. However, we examine planning prompt in a different consumer behavior context (IB) and suggest a negative relationship between planning prompt and IB. We designed the planning prompt such that it acts as a deterrent to IB ("Which items do you plan to buy?"), rather than a driver of IB (e.g. "Go ahead and indulge yourself, what is wrong?"). We present a dynamic research context that shows planning prompts being used to influence the shopping behavior of consumers in a retail store.

We demonstrate the value of a planning prompt as an implementation intention in new behavior formation or the continuation of a behavior (Ajzen, 1985; Armitage and Conner, 2000) in a retail setting. Most of the research in the implementation intention literature has focused on the gap between intention and behaviour. Consumers often have the motivation to implement their well-intentioned plans and achieve their goals (Webb and Sheeran, 2006), however, there might be instances of failure to do so in the absence of a volitional strategy (Gollwitzer, 1999). While having good intentions in the pre-decisional stage are a necessary

condition for executing plans, it may not be sufficient for behavioral enactment. Our study demonstrates that planning prompts, an implementation intention strategy (volitional) in the post-decisional stage, can help consumers enact a desirable behavior (buy as planned) and minimize undesirable behavior (IB). Planning prompts guide consumers to keep to their intended plans and steer them towards behavioral enactment (Gollwitzer, 1999).

Third, our research not only finds a resistance strategy for IB but also suggests when this resistance would work better and identifies some new boundaries to support it. Past researchers (Mann, 2016) have deemed it important to examine decisional procrastination in newer contexts, yet scant attention has been paid to their call. Therefore, we examined the role of decisional procrastination, a personality trait, as a moderator between planning prompt and IB. Specifically, our study demonstrates that the impact of planning prompt would be greater for consumers who rank high (vis-à-vis low) on decisional procrastination. Our findings reveal that the negative relationship between planning prompt and IB is accentuated for high decisional procrastinators and attenuated for low decisional procrastinators. A few past studies (Van Eerde, 2003) have indicated that decisional procrastination is a possible moderator between planning prompt and behavior but have been unable to provide any empirical evidence for the same. Our study is the first to empirically show the moderating role of decisional procrastination between planning prompt and IB. Moreover, this is arguably the first study that finds an interaction between decisional procrastination and planning prompt. We provide plausible explanations for the accentuated impact of planning prompt on high decisional procrastinators. A planning prompt might help consumers plan, thus ruling out competing alternatives for high decisional procrastinators and consequently, free them from the cognitive load of evaluating and arriving at a decision.

Fourth, based on empirical evidence, this research suggests that planning prompt works better in reducing IB for vice products as compared to virtue products. As vice products are



normatively wrong to purchase, planning prompt further supports the negative normative connotation associated with vice products, thereby reducing the probability of the customer buying impulsively. On the other hand, as virtue products are normatively right to purchase, the presence of planning prompt in virtue product purchases does not have any significant impact on IB.

Finally, although extant research (Moser, 2018; Peck and Childers, 2006) has advocated using field experiments to examine the impact of the antecedents on IB, researchers in the IB domain have used either a lab experiment (Sharma et al., 2010a, 2014) or a mall survey (Mohan et al., 2013; Sharma et al., 2010a). Additionally, with the exception of a few (Mazar et al., 2018), most of the research studies on implementation intention in the consumer research domain have been conducted in lab settings. To our knowledge, ours is one of the first few studies to use a field experiment in a mall setting in order to analyse the impact of planning prompt as an IB resistance strategy.

## **5.2 Policy/ Consumer Welfare Implications**

This research also provides several suggestions to policy makers. Our study has significant implications on an individual who is unable to act on a good intention, leading to deleterious repercussions for him/her. Extant research has noted that self-control, self-esteem, self-monitoring, and self-regulation are needed to suppress IB (Sharma et al., 2010b; Silvera et al., 2008; Verplanken and Sato, 2011). However, it is not pragmatic to assume that the temptation to buy on an impulse and the subsequent negative impact it has on consumers can be eliminated quickly and easily via self-mechanisms, as has been suggested by previous research.

Our study offers insights on designing implementable resistance strategies for the benefit of consumers. Recent research suggests that ethical firms and retailers may strive to reduce “purely uninhibited impulse purchases that may lead to later regret and dissatisfaction”

(Iyer et al. 2019). In line with this, our research suggests that policy makers and firms may invest in prompting people to make their shopping plans before they enter the store. This would support them to act on their good intentions, adhere to their plans, and avoid IB altogether.

Planning prompt is found to be a simple, yet powerful resistance strategy against IB and this can be incorporated into an organization's marketing plan to promote consumer well-being and welfare. In particular, an organization that encourages the customer to plan may create goodwill and this would indirectly benefit the organization in the long run. When customers perceive these goodwill investments, they will reciprocate with loyalty and/or the intention to continue the relationship with the organization (Iyer et al. 2019). Thus, educating customers about the negative aspects of IB, as well as spreading awareness about the reduction of IB through planning intervention may help generate a sustainable consumption culture that would benefit both, the firm and the consumer. Our study indicates that planning prompts could be the implementation intention strategy that would make people create and execute their plans.

While many consumers indulge in IB additional profit from impulse buying by consumers, they may not encourage consumers to desist from IB though recent research suggests otherwise (Iyer et al. 2019). However, policy makers may take note of our findings and use them to reduce unwarranted IB. For instance, usage of mobile phones has a significant impact on the shopping process (Holmes et al., 2014). Many consumer decisions are also influenced in-store (Gilbride et al., 2015). Hence, if buying decisions can be influenced in-store, so can decisions to not buy impulsively. To give an example, policy makers might publicize an app titled, 'Wise Shopping App' that would work as a planning prompt. Shoppers can be encouraged to download this app in a way similar to companies that urge consumers to download fitness apps. The 'Wise Shopping App' could ask shoppers to create a list every time they shop, plan their shopping activities before they shop and thereby alleviate IB tendencies.

While many consumers indulge in IB, only some of them may be concerned about it. These consumers may “self-identify” as being anxious about unnecessary IB. There are sites that help consumers make wise financial choices – for example, [www.statusmoney.com](http://www.statusmoney.com) and [www.savings.com.au](http://www.savings.com.au). Our findings can be used by policy makers and sites like these to earmark consumers who “self-identify” as those unable to eliminate barriers to purchase. These sites, using past online data, can find out with reasonable certainty those consumers who are worried about their tendency to IB. They can then advise them on the use of simple planning prompts to curb their unnecessary IB. For example, before going on a shopping trip, a planning prompt can be given to the customer, “Which sections of the mall are you planning to visit?” or “Which items are you going to buy?” These questions may act as planning prompts and save customers from engaging in unnecessary IB.

Our results showed that planning prompts mitigated IB to a greater extent for vice vis-à-vis virtue products. This is good news for policy makers, since they can now employ simple planning prompts, as demonstrated by our study, to reduce IB in the case of vice products which are more harmful than virtue products. This has important implications for the health and well-being of consumers who are particularly susceptible to vice products.

The ‘Wise Shopping’ app could be used not just for shopping trips but also for activities like dining in restaurants and can be advertised on sites such as the ones named above. Consumers who seek help in reducing IB would be likely to visit these sites which can also be promoted through popular financial therapists or debt advisors. When going to restaurants, most diners do not choose healthy items on the menu when unhealthy items are also available (Biswas et al., 2017). It is highly probable that many of these unhealthy (i.e. vice) choices are impulsive. Hence, if diners download such an app and the app alerts them to planning their menu choices (in other words, a planning prompt), the probability of choosing vice items on

the menu would decrease (since planning prompts work better at mitigating IB for vice products), leading to better health and consumer welfare.

Finally, the results of both studies revealed that planning prompts reduced IB to a greater extent for consumers that ranked high for decisional procrastination, rather than those who ranked low for this trait. Policy makers may initially target those consumers who rank high for decisional procrastination (by measuring this at the time of enrolment, for example). Alternatively, policy makers or relevant sites/financial therapists may send these planning prompts more frequently to consumers who rank low on decisional procrastination, so that their unnecessary IB urges are reduced correspondingly. Using data gleaned from customers with their consent or through companies like Mindset Media (a company that targets consumers based on personality traits), policy makers may identify consumers high on decisional procrastination.

## **6. LIMITATIONS AND FUTURE RESEARCH**

While this work documents several key theoretical and managerial contributions, it is not free of limitations. First, the study was restricted to only one country, India, where there is a broad spectrum of cultural influences that impact IB (Muruganatham and Bhakat, 2013; Podoshen and Andrzejewski, 2012). Future research can replicate this study in other countries/cultures. Further, as IB can commonly occur in online spaces as well (Dawson and Kim, 2009; Jeffrey and Hodge, 2007), future work may consider IB resistance strategies in the online domain.

While prior research (Ferrari et al., 2009; Harriott and Ferrari, 1996) found a negative correlation between age-related and decisional procrastination, this study did not find any evidence of any such correlation (Please refer to correlation matrices in Table 4a and 4b). Future research may fill these gaps as it was beyond the scope of our study.

This research has suggested the role of two moderators (decisional procrastination and product category) in the planning prompt-IB relationship. Upcoming research can explore the moderating role that self-efficacy (people's beliefs in their ability to influence events that affect their lives) and goal commitment play in the planning prompt-IB relationship. This study provided a planning prompt at the entrance to the mall, prior to the shopping experience. Future research can investigate whether providing reinforcement or reminder messages regarding their plan (through SMS) while they are actually shopping, would further reduce IB.

Thus, this work not only makes key contributions to existing literature but also has the potential to open new avenues for research regarding this socially important and emerging research area in the realm/field of consumer behavior.

## REFERENCES

- Ajzen, I. (1985), "From intentions to actions: A theory of planned behavior", *Action Control*, pp. 11-39 Springer, Berlin, Heidelberg.
- Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50 No. 2, pp. 179-211.
- Amos, C., Holmes, G. R., & Keneson, W. C. (2014), "A meta-analysis of consumer impulse buying", *Journal of Retailing and Consumer Services*, Vol. 21 No. 2, pp. 86-97.
- Andani, K., & Wahyono, W. (2018), "Influence of Sales Promotion, Hedonic Shopping Motivation and Fashion Involvement Toward Impulse Buying through a Positive Emotion", *Management Analysis Journal*, Vol. 7 No. 4, pp. 448-457.
- Armitage, C. J., & Conner, M. (2000), "Social cognition models and health behavior: A structured review", *Psychology and Health*, Vol. 15 No. 2, pp. 173-189.

- Badgaiyan, A. J., & Verma, A. (2015), "Does urge to buy impulsively differ from impulsive buying behavior? Assessing the impact of situational factors", *Journal of Retailing and Consumer Services*, Vol. 22, pp. 145-157.
- Bandyopadhyay, N. (2017), "Exploring the link between impulsive buying tendency, self-esteem and normative influence: a structural equation model", *International Journal of Indian Culture and Business Management*, Vol. 15 No. 1, pp. 23-37.
- Bandyopadhyay, N. (2020), "Human Crowding or Spatial Crowding? The Impact of Perceived Crowding on In-store Impulse Purchase", *American Business Review*, Vol. 23 No. 1, pp. 7.
- Baumgartner, H. (2002), "Toward a personology of the consumer", *Journal of Consumer Research*, Vol. 29 No. 2, pp. 286-292.
- Beatty, S. E., & Ferrell, M. E. (1998), "Impulse buying: Modeling its precursors", *Journal of Retailing*, Vol. 74 No. 2, pp. 169-191.
- Bellini, S., & Aiolfi, S. (2017), "The impact of mobile device use on shopper behavior in store: An empirical research on grocery retailing", *International Business Research*, Vol. 10 No. 4, pp. 58-68.
- Beswick, G., Rothblum, E.D. and Mann, L. (1988), "Psychological antecedents of student procrastination", *Australian Psychologist*, Vol. 23 No. 2, pp. 207-217.
- Biswas, D., Szocs, C., Chacko, R., & Wansink, B. (2017), "Shining light on atmospherics: How ambient light influences food choices", *Journal of Marketing Research*, Vol. 54 No. 1, pp. 111-123.
- Black, D. W. (2007), "A review of compulsive buying disorder", *World Psychiatry*, Vol. 6 No. 1, pp. 14-18.
- Carrera, M., Royer, H., Stehr, M., Sydnor, J., & Taubinsky, D. (2018), "The limits of simple implementation intentions: Evidence from a field experiment on making plans to exercise", *Journal of Health Economics*, Vol. 62, pp. 95-104.
- Chang, H. J., Yan, R. N., & Eckman, M. (2014), "Moderating effects of situational characteristics on impulse buying", *International Journal of Retail & Distribution Management*, Vol. 42 No. 4, pp. 298-314.
- 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*, Vol. 56 No. 2, pp. 236-248.
- Carver, C. S., & Scheier, M. F. (1982), "Control theory: A useful conceptual framework for personality—social, clinical, and health psychology", *Psychological Bulletin*, Vol. 92 No. 1, pp. 111-135.
- Costa, M. F. D., Farias, S. A. D., & Angelo, C. F. D. (2018), "Chronic Regulatory Focus: Resist impulse consumption or let it happen?", *Revista Brasileira de Gestão de Negócios*, Vol. 20 No. 4, pp. 619-637.

- Dagger, T. S., Sweeney, J. C., & Johnson, L. W. (2007), "A hierarchical model of health service quality: scale development and investigation of an integrated model", *Journal of Service Research*, Vol. 10 No. 2, pp. 123-142.
- Dai, H., Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2012), "Planning prompts as a means of increasing rates of immunization and preventive screening", *Public Policy and Aging Report*, Vol. 22 No. 4, pp. 16-19.
- Dawson, S., & Kim, M. (2009), "External and internal trigger cues of impulse buying online", *Direct Marketing: An International Journal*, Vol. 3 No. 1, pp. 20-34.
- Dhandra, T. K. (2020), "Does self-esteem matter? A framework depicting role of self-esteem between dispositional mindfulness and impulsive buying", *Journal of Retailing and Consumer Services*, Vol. 55, 102135.
- Dholakia, R. R., Zhao, M., & Dholakia, N. (2005), "Multichannel retailing: A case study of early experiences", *Journal of Interactive Marketing*, Vol. 19 No. 2, pp. 63-74.
- Dholakia, U. M. (2000), "Temptation and resistance: an integrated model of consumption impulse formation and enactment", *Psychology & Marketing*, Vol. 17 No. 11, pp. 955-982.
- Dittmar, H. (2005). A new look at "compulsive buying": Self-discrepancies and materialistic values as predictors of compulsive buying tendency. *Journal of Social and Clinical Psychology*, Vol. 24 No. 6, pp. 832-859.
- Dreher, M. J., & Brown, R. F. (1993), "Planning prompts and indexed terms in textbook search tasks", *Journal of Educational Psychology*, Vol. 85 No. 4, pp. 662-669.
- Efendi, R., Indartono, S., & Sukidjo, S. (2019), "The Mediation of Economic Literacy on the Effect of Self Control on Impulsive Buying Behaviour Moderated by Peers", *International Journal of Economics and Financial Issues*, Vol. 9 No. 3, pp. 98-104.
- Ellis, A., & Knaus, W.J (1977), "Overcoming procrastination", New York: Signet Books.
- Fenton-O'Creevy, M., Dibb, S., & Furnham, A. (2018), "Antecedents and consequences of chronic impulsive buying: Can impulsive buying be understood as dysfunctional self-regulation?", *Psychology & Marketing*, 35(3), 175-188.
- Ferrari, J. R., & Emmons, R. A. (1994), "Procrastination as revenge: do people report using delays as a strategy for vengeance?", *Personality and Individual Differences*, Vol. 17 No. 4, pp. 539-544.
- Ferrari, S., Palmerini, E., Staals, E., Abate, M. E., Longhi, A., Cesari, M., ... & Bacci, G. (2009), "Sex-and age-related chemotherapy toxicity in patients with non-metastatic osteosarcoma", *Journal of Chemotherapy*, Vol. 21 No. 2, pp. 205-210.
- Frese, M., & Zapf, D. (1994), "Action as the core of work psychology: A German approach", *Handbook of Industrial and Organizational Psychology*, Vol. 4 No. 2, pp. 271-340.
- Frost, R. O., & Shows, D. L. (1993), "The nature and measurement of compulsive indecisiveness", *Behavior Research and Therapy*, Vol. 31 No. 7, pp. 683-692.
- Gaskin, J., & Lim, J. (2018), "Multigroup analysis, AMOS Plugin", *Gaskination's StatWiki*.

- Gilbride, T. J., Inman, J. J., & Stilley, K. M. (2015), "The role of within-trip dynamics in unplanned versus planned purchase behavior", *Journal of Marketing*, Vol. 79 No. 3, pp. 57-73.
- Glejser, H. (1969), "A new test for heteroskedasticity", *Journal of the American Statistical Association*, Vol. 64 No. 325, pp. 316-323.
- Gollwitzer, P. M. (1993), "Goal achievement: The role of intentions", *European Review of Social Psychology*, Vol. 4 No. 1, pp. 141-185.
- Gollwitzer, P. M. (1999), "Implementation intentions: Strong effects of simple plans", *American Psychologist*, Vol. 54 No. 7, pp. 493-503.
- Gollwitzer, P. M., & Sheeran, P. (2006), "Implementation intentions and goal achievement: A meta-analysis of effects and processes", *Advances in Experimental Social Psychology*, Vol. 38, pp. 69-119.
- Gollwitzer, P. M., & Sheeran, P. (2009), "Self-regulation of consumer decision making and behavior: The role of implementation intentions", *Journal of Consumer Psychology*, Vol. 19 No. 4, pp. 593-607.
- Hacker, W. (1985), "Activity: A fruitful concept in industrial psychology", In M. Frese & J. Sabini (Eds.), *Goal directed behavior: The concept of action in psychology*. Hillsdale, NJ: Erlbaum.
- Handel, B., & Kolstad, J. (2017), "Wearable technologies and health behaviors: New data and new methods to understand population health", *American Economic Review*, Vol. 107 No. 5, pp. 481-85.
- Harman, D. (1967), "A single factor test of common method variance", *Journal of Psychology*, Vol. 35 No 1967, pp. 359-378.
- Harriott, J., & Ferrari, J. R. (1996). Prevalence of procrastination among samples of adults. *Psychological Reports*, 78(2), 611-616.
- Hayes, A.F. (2017), "Introduction to mediation, moderation, and conditional process analysis: A regression-based approach", Guilford publications.
- Haynes, A., Kemps, E., Moffitt, R., & Mohr, P. (2014), "Resisting temptation of unhealthy food: interaction between temptation-elicited goal activation and self-control", *Motivation and Emotion*, Vol. 38 No. 4, pp. 485-495.
- Hendrawan, D., & Nugroho, D. A. (2018), "Influence of personality on impulsive buying behavior among Indonesian young consumers", *International Journal of Trade and Global Markets*, Vol. 11 No. 1-2, pp. 31-39.
- Holmes, A., Byrne, A., & Rowley, J. (2014), "Mobile shopping behavior: insights into attitudes, shopping process involvement and location", *International Journal of Retail & Distribution Management*, Vol. 42 No. 1, pp. 25-39.
- Horváth, C., Büttner, O. B., Belei, N., & Adigüzel, F. (2015), "Balancing the balance: Self-control mechanisms and compulsive buying", *Journal of Economic Psychology*, Vol. 49, pp. 120-132.



- Iyer, G. R., Blut, M., Xiao, S. H., & Grewal, D. (2019), "Impulse buying: a meta-analytic review", *Journal of the Academy of Marketing Science*, Vol. 48 No. 3, pp. 384-404.
- Janis, I. L., & Mann, L. (1977), "Emergency decision making: a theoretical analysis of responses to disaster warnings", *Journal of Human Stress*, Vol. 3 No. 2, pp. 35-48.
- Jeffrey, S. A., & Hodge, R. (2007), "Factors influencing impulse buying during an online purchase", *Electronic Commerce Research*, Vol. 7 No. 3, 367-379.
- Jones, M. A., Reynolds, K. E., Weun, S., & Beatty, S. E. (2003), "The product-specific nature of impulse buying tendency", *Journal of Business Research*, Vol. 56 No. 7, pp. 505-511.
- Lennox, R. D., & Wolfe, R. N. (1984). Revision of the self-monitoring scale.
- Luna-Arocas, R. (2008), "Self-discrepancy and impulse buying: An exploratory study", *International Journal of Organization Theory and Behavior*, Vol. 11 No 2, pp. 240-265.
- Mann, L. (1982), "Decision making questionnaires I and II", Unpublished questionnaires. The Flinders University of South Australia.
- Mann, L. (2016), "Procrastination revisited: a commentary", *Australian Psychologist*, Vol. 51 No. 1, pp. 47-51.
- Mattila, A. S., & Wirtz, J. (2008). The role of store environmental stimulation and social factors on impulse purchasing. *Journal of Services Marketing*, Vol. 22 No. 7, pp. 562-567.
- Massara, F., Melara, R. D., & Liu, S. S. (2014), "Impulse versus opportunistic purchasing during a grocery shopping experience", *Marketing Letters*, Vol. 25 No. 4, pp. 361-372.
- Mau, G., Schramm-Klein, H., Schuhen, M., & Steinmann, S. (2019), "What helps children resist distracting marketing stimuli? Implementation intentions and restrictions alter food choice", *Appetite*, Vol. 140, pp. 159-168.
- Mazar, N., Mochon, D., & Ariely, D. (2018), "If you are going to pay within the next 24 hours, press 1: automatic Planning prompt reduces credit card delinquency", *Journal of Consumer Psychology*, Vol. 28 No. 3, pp. 466-476.
- Milkman, K. L., Rogers, T., & Bazerman, M. H. (2008), "Harnessing our inner angels and demons: What we have learned about want/should conflicts and how that knowledge can help us reduce short-sighted decision making", *Perspectives on Psychological Science*, Vol. 3 No. 4, pp. 324-338.
- Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2011), "Using implementation intentions prompts to enhance influenza vaccination rates", *Proceedings of the National Academy of Sciences*, Vol. 108 No. 26, pp. 10415-10420.
- Milkman, K. L., Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2013), "Planning prompts as a means of increasing preventive screening rates", *Preventive Medicine*, Vol. 56 No. 1, pp. 92-93.

- Mishra, A., & Mishra, H. (2011), "The influence of price discount versus bonus pack on the preference for virtue and vice foods", *Journal of Marketing Research*, Vol. 48 No.1, pp. 196-206.
- Mittal, S., Sondhi, N., & Chawla, D. (2018), "Process of impulse buying: A qualitative exploration", *Global Business Review*, Vol. 19 No. 1, pp. 131-146.
- Moayery, M., Cantín, L. N., & Martíns, J. J. (2019), "How does self-control operate? A focus on impulse buying", *Psychologist Papers*, Vol. 40 No. 2, pp. 149-156.
- Mohan, G., Sivakumaran, B., & Sharma, P. (2013), "Impact of store environment on impulse buying behavior", *European Journal of marketing*, Vol. 47 No. 10, pp. 1711-1732.
- Moser, C., (2018), "Impulse Buying: Interventions to Support Self-control with E-commerce", *In Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems*, pp. 1-4.
- Muruganantham, G., & Bhakat, R. S. (2013), "A review of impulse buying behavior", *International Journal of Marketing Studies*, Vol. 5 No. 3, pp. 149-161.
- Olsen, M. C., Slotegraaf, R. J., & Chandukala, S. R. (2014), "Green claims and message frames: how green new products change brand attitude", *Journal of Marketing*, Vol. 78 No. 5, pp. 119-137.
- Ouellet, J., McGirr, A., Van den Eynde, F., Jollant, F., Lepage, M., & Berlim, M. T. (2015), "Enhancing decision-making and cognitive impulse control with transcranial direct current stimulation (tDCS) applied over the orbitofrontal cortex (OFC): a randomized and sham-controlled exploratory study", *Journal of Psychiatric Research*, Vol. 69, pp. 27-34.
- Ozer, L., & Gultekin, B. (2015), "Pre-and post-purchase stage in impulse buying: The role of mood and satisfaction", *Journal of Retailing and Consumer Services*, Vol. 22, pp. 71-76.
- Park, J., & Lennon, S. J. (2006), "Psychological and environmental antecedents of impulse buying tendency in the multichannel shopping context", *Journal of Consumer Marketing*, Vol. 23 No. 2, pp. 56-66.
- Parreño-Selva, J., José Mas-Ruiz, F., & Ruiz-Conde, E. (2014), "Price promotions effects of virtue and vice products", *European Journal of Marketing*, Vol. 48 No. 7/8, 1296-1314.
- Parsad, C., Prashar, S., Vijay, T. S., & Sahay, V. (2019), "Role of In-Store Atmospheric and Impulse Buying Tendency on Post-Purchase Regret", *Journal of Business & Management*, Vol. 25 No. 1, pp. 1-24.
- Peck, J., & Childers, T. L. (2006), "If I touch it I have to have it: Individual and environmental influences on impulse purchasing", *Journal of Business Research*, Vol. 59 No. 6, pp. 765-769.
- Podoshen, J. S., & Andrzejewski, S. A. (2012), "An examination of the relationships between materialism, conspicuous consumption, impulse buying, and brand loyalty", *Journal of Marketing Theory and Practice*, Vol. 20 No. 3, pp. 319-334.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies" *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.

- Podsakoff, N. P., Whiting, S. W., Podsakoff, P. M., & Mishra, P. (2011), "Effects of organizational citizenship behaviors on selection decisions in employment interviews", *Journal of Applied Psychology*, Vol. 96 No. 2, pp. 310-326.
- Pradhan, D., Israel, D., & 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.
- Punj, G. (2011), "Impulse buying and variety seeking: Similarities and differences", *Journal of Business Research*, Vol. 64 No. 7, pp. 745-748.
- Raabe, B., Frese, M., & Beehr, T. A. (2007), "Action regulation theory and career self-management", *Journal of Vocational Behavior*, Vol. 70 No. 2, pp. 297-311.
- Rogers, T., Milkman, K. L., John, L., & Norton, M. I. (2013), "Making the best-laid plans better: how plan making increases follow-through", *Behavioral Science & Policy*.
- Rook, D. W. (1987), "The buying impulse", *Journal of Consumer Research*, Vol. 14 No. 2, pp. 189-199.
- Rook, D. W., & Fisher, R. J. (1995), "Normative influences on impulsive buying behavior", *Journal of Consumer Research*, Vol. 22 No. 3, pp. 305-313.
- Rutter, M., Moffitt, T. E., & Caspi, A. (2006), "Gene–environment interplay and psychopathology: Multiple varieties but real effects", *Journal of Child Psychology and Psychiatry*, Vol. 47 No. 3-4, pp. 226-261.
- Sharma, P., Sivakumaran, B., & Marshall, R. (2010a), "Impulse buying and variety seeking: A trait-correlates perspective", *Journal of Business Research*, Vol. 63 No. 3, pp. 276-283.
- Sharma, P., Sivakumaran, B., & Marshall, R. (2010b), "Exploring impulse buying and variety seeking by retail shoppers: towards a common conceptual framework", *Journal of Marketing Management*, Vol. 26 No. 5-6, pp. 473-494.
- Sharma, P., Sivakumaran, B., & Marshall, R. (2014), "Exploring impulse buying in services: toward an integrative framework", *Journal of the Academy of Marketing Science*, Vol. 42 No. 2, pp. 154-170.
- Sheeran, P., & Orbell, S. (1999), "Implementation intentions and repeated behavior: Augmenting the predictive validity of the theory of planned behavior", *European Journal of Social Psychology*, Vol. 29 No. 2-3, pp. 349-369.
- Sheeran, P., Webb, T. L., & Gollwitzer, P. M. (2005), "The interplay between goal intentions and implementation intentions", *Personality and Social Psychology Bulletin*, Vol. 31 No. 1, pp. 87-98.
- Sheeran, P., & Webb, T. L. (2016), "The intention–behavior gap", *Social and Personality Psychology Compass*, Vol. 10 No. 9, pp. 503-518.
- Shiv, B., & Fedorikhin, A. (1999), "Heart and mind in conflict: The interplay of affect and cognition in consumer decision making", *Journal of Consumer Research*, Vol. 26 No. 3, pp. 278-292.

- Silvera, D.H., Lavack, A.M. and Kropp, F. (2008), “Impulse buying: the role of affect, social influence, and subjective wellbeing”, *Journal of Consumer Marketing*, Vol. 25 No. 1, pp. 23-33.
- Sitzmann, T., & Johnson, S. K. (2012), “The best laid plans: Examining the conditions under which a planning intervention improves learning and reduces attrition”, *Journal of Applied Psychology*, Vol. 97 No. 5, pp. 967-981.
- Skår, S., Sniehotta, F. F., Molloy, G. J., Prestwich, A., & Araujo-Soares, V. (2011), “Do brief online planning interventions increase physical activity amongst university students? A randomised controlled trial”, *Psychology and Health*, Vol. 26 No. 4, pp. 399-417.
- Spiteri Cornish, L. (2020), “Why did I buy this? Consumers' post-impulse-consumption experience and its impact on the propensity for future impulse buying behaviour”, *Journal of Consumer Behaviour*, Vol. 19 No. 1, pp. 36-46.
- Steel, P. (2007), “The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure”, *Psychological Bulletin*, Vol. 133 No. 1, pp. 65-94.
- Steel, P., & Klingsieck, K. B. (2016), “Academic procrastination: Psychological antecedents revisited”, *Australian Psychologist*, Vol. 51 No. 1, pp. 36-46.
- Sultan, A. J., Joireman, J., & Sprott, D. E. (2012), “Building consumer self-control: The effect of self-control exercises on impulse buying urges”, *Marketing Letters*, Vol. 23 No. 1, pp. 61-72.
- Thomas, M., Desai, K. K., & Seenivasan, S. (2010), “How credit card payments increase unhealthy food purchases: Visceral regulation of vices”, *Journal of Consumer Research*, Vol. 38 No. 1, pp. 126-139.
- Thompson, E. R., & Prendergast, G. P. (2015), “The influence of trait affect and the five-factor personality model on impulse buying”, *Personality and Individual Differences*, Vol. 7 No. 6, pp. 216-221.
- Trijp, H. C. V., Hoyer, W. D., & Inman, J. J. (1996). Why switch? product category–level explanations for true variety-seeking behavior. *Journal of Marketing Research*, Vol. 33 No. 3, pp. 281-292.
- Van Eerde, W. (2003), “A meta-analytically derived nomological network of procrastination”, *Personality and Individual Differences*, Vol. 35 No. 6, pp.1401-1418.
- Verplanken, B. and Herabadi, A. (2001), “Individual differences in impulse buying tendency: Feeling and no thinking”, *European Journal of Personality*, Vol. 15 No. S1, pp. S71-S83.
- Verplanken, B. and Sato, A. (2011), “The psychology of impulse buying: An integrative self-regulation approach”, *Journal of Consumer Policy*, Vol. 34 No. 2, pp. 197-210.
- Vohs, K. D., & Faber, R. J. (2007), “Spent resources: Self-regulatory resource availability affects impulse buying”, *Journal of Consumer Research*, Vol. 33 No. 4, pp. 537-547.
- Webb, T. L., & Sheeran, P. (2006), “Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence”, *Psychological Bulletin*, Vol. 132 No. 2, pp. 249-268.

Webb, T. L., & Sheeran, P. (2007). "How do implementation intentions promote goal attainment? A test of component processes", *Journal of Experimental Social Psychology*, Vol. 43 No. 2, pp. 295-302.

Werthenbroch, K. (1998), "Consumption self-control by rationing purchase quantities of virtue and vice", *Marketing Science*, Vol. 17 No. 4, pp. 317-337.

Yi, S., & Baumgartner, H. (2011), "Coping with guilt and shame in the impulse buying context", *Journal of Economic Psychology*, Vol. 32 No. 3, pp. 458-467.

Youn, S., & Faber, R. J. (2000), "Impulse buying: its relation to personality traits and cues", *ACR North American Advances*, Vol. 27, pp. 179-185.

Zeelenberg, M., & Pieters, R. (2007). A theory of regret regulation 1.0. *Journal of Consumer Psychology*, Vol. 17 No. 1, pp. 3-18.

Zhang, Y., Winterich, K. P., & Mittal, V. (2010), "Power distance belief and impulsive buying", *Journal of Marketing Research*, Vol. 47 No. 5, pp. 945-954.

## **Appendix A**

### **Hypothetical buying scenario: Vice product with Planning prompt**

Geeta is a 25-year-old married woman. She wants to buy sugar for her house. It's a warm afternoon. She goes to a grocery shopping mall. She has money to buy only sugar and not anything else. At the entry gate, she was asked about her shopping plans: Which items are you planning to buy? Which sections of the mall are you planning to visit? Once she answered the questions, she entered the mall and put the sugar in the shopping basket. When she was moving to billing counter to pay for sugar, she saw ice cream cups of different flavours on the shelf. The weather is really hot and she likes ice-cream a lot). However, with the money she is having, she is able to buy either sugar or ice-cream.

After reading this scenario, select which one of the five purchase decision alternatives Geeta would make.

- (1) Buying sugar only
- (2) Wanting ice-cream but not buying it
- (3) Deciding not to buy sugar and to buy ice-cream
- (4) Buying both the sugar and ice-cream with a credit card
- (5) Buying these plus some chocolates also with a credit card.

### **Hypothetical buying scenario: Vice product without Planning prompt**

Geeta is a 25-year-old married woman. She wants to buy sugar for her house. It's a warm afternoon. She goes to a grocery shopping mall. She has money to buy only sugar and not anything else. She entered the mall and put the sugar in the shopping basket. When she was moving to billing counter to pay for sugar, she saw ice-cream cups of different flavours on the shelf. The weather is really hot and she likes ice-cream a lot. However, with the money she is having, she is able to buy either sugar or ice-cream.

After reading this scenario, select which one of the five purchase decision alternatives Geeta would make.

- (1) Buying sugar only
- (2) Wanting ice-cream but not buying it
- (3) Deciding not to buy sugar and to buy ice-cream
- (4) Buying both the sugar and ice-cream with a credit card
- (5) Buying these plus some chocolates also with a credit card.

### **Hypothetical buying scenario: Virtue product with Planning prompt**

Geeta is a 25-year-old married woman. She wants to buy sugar for her house. It's a warm afternoon. She goes to a grocery shopping mall. She has money to buy only sugar and not

anything else. At the entry gate, she was asked about her shopping plans: Which items are you planning to buy? Which sections of the mall are you planning to visit? Once she answered the questions, she entered the mall and put the sugar in the shopping basket. When she was moving to billing counter to pay for sugar, she saw juice packets of different flavours on the shelf. The weather is really hot and she likes juice a lot. However, with the money she is having, she is able to buy either sugar or juice.

After reading this scenario, select which one of the five purchase decision alternatives Geeta would make.

- (1) Buying sugar only
- (2) Wanting juice but not buying it
- (3) Deciding not to buy sugar and to buy juice
- (4) Buying both the sugar and juice with a credit card
- (5) Buying these plus some oats biscuits also with a credit card.

**Hypothetical buying scenario: Virtue product without Planning prompt**

Virtue product without Geeta is a 25-year-old married woman. She wants to buy sugar for her house. It's a warm afternoon. She goes to a grocery shopping mall. She has money to buy only sugar and not anything else. She entered the mall and put the sugar in the shopping basket. When she was moving to billing counter to pay for sugar, she saw juice packets of different flavours on the shelf. The weather is really hot and she likes juice a lot. However, with the money she is having, she is able to buy either sugar or juice.

After reading this scenario, select which one of the five purchase decision alternatives Geeta would make.

- (1) Buying sugar only
- (2) Wanting juice but not buying it
- (3) Deciding not to buy sugar and to buy juice
- (4) Buying both the sugar and juice with a credit card
- (5) Buying these plus some oats biscuits also with a credit card

## **Figure Legends**

### **FIGURE 1 Study 1- Moderating role of product category (Vice vis-à-vis Virtue) in the relationship between planning prompt (PP) and Impulse Buying (IB)**

Figure 1 graphically depicts moderation of the effect of Planning prompt (PP) on IB at Vice vs. Virtue levels of Product Category. In the case of Vice (vis-à-vis Virtue) product category, the line follows a sharper negative slope, indicating that for vice (vis-à-vis virtue) products, the negative relationship between Planning prompt (PP) and IB is stronger.

### **FIGURE 2 Study 1- Moderating role of decisional procrastination (DP) in the relationship between planning prompt (PP) and Impulse Buying (IB)**

Figure 2 graphically depicts moderation of the effect of Planning prompt on IB at high vs. low levels of Decisional Procrastination. In the case of high Decisional Procrastination (vis-à-vis low Decisional Procrastination), the line follows a sharper negative slope, indicating that for high Decisional Procrastination (vis-à-vis low Decisional Procrastination), the negative relationship between Planning prompt and IB is stronger.

### **FIGURE 3 Study 2- Moderating role of product category (Vice vis-à-vis Virtue) in the relationship between planning prompt (PP) and Impulse Buying (IB)**

Same as Figure 1 (except that we draw it based on Study 2).

### **FIGURE 4 Study 2- Moderating role of decisional procrastination (DP) in the relationship between planning prompt (PP) and Impulse Buying (IB)**

Same as Figure 2 (except that we draw it based on Study 2).