# Should I Win or Should I not Lose ? : A Research Framework Exploring the Role of Motivation in Processing Brand Related Information in Advergames

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## Abstract

**Extant research dealing with information processing in advergames focuses mostly on players' limited capacity aspect of attention and persuasion knowledge, persuasive potency of advergames, information-processing fluency, and the development of flow and arousal among players. One primary facet of advergames that remains under-investigated is the effect of game outcomes, that is, wins and losses, on players' motivation and the influence of outcome-induced motivation on information processing. Furthermore, earlier studies predominantly considered players' explicit memory like brand recall and recognition while ignoring a salient unconscious measure, namely implicit memory. This paper provides a conceptual framework that explored the influence of advergame outcomes and messages on players' motivation and its subsequent impact on processing embedded brand elements. Conceptual fabric of the proposed model was derived from a motivational principle, regulatory focus theory, and implicit memory literature to explain how outcome-induced motivation influences players' nature of information processing, implicit memory, emotions, and brand and game attitudes. Academic and managerial implications were also discussed.**

***Keywords :*** **advergames, advergame outcome, implicit memory, information processing, motivation, regulatory focus**

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In the pursuit of persuading consumers to buy their brands, marketers have always relied on traditional communication tools like print, radio, and TV ads. Of late, with the advancement of the Internet, the marketers have also understood the coaxing potency of the digital media. However, the success of these communication tools is often called into question due to competitive clutter resulting in reduced brand name recall and ad claim recall (Kumar & Krishnan, 2004), banner blindness (Sun, Lim, & Peng, 2013), and avoidance of advertising on the Internet (Baek & Morimoto, 2012). Therefore, as marketers persist to gain increased access to consumers' attention and interest towards their products, one of the channels they have exploited more frequently in recent years is product placement in online games, more commonly known as in-game ads or advergames.

Advergames are "a particular form of branded entertainment, which is the insertion of a brand within an entertainment property, e.g., product placement in film, television show or video game" (Moore, 2006, p.1). They represent a specific genre of video game brand(s) strategically embedded in it (Peters & Leshner, 2013), and

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provide the opportunity of long-term, focused exposure to these embedded brands in a reward driven environment (Evans, Carlson, & Hoy, 2013).

Now, for the video and computer gaming industry, game developers command additional revenue from marketers for placing their brands in video games. In 2012, marketers in USA spent $408 million on in-game advertising, and this industry is projected to grow to $1.45 billion by 2016 (eMarketer, 2012). The total number of gamers, including mobile, online, and social gamers, was also supposed to grow from 198 million in 2010 to a whopping 327 million in 2016 (eMarketer, 2012). This steady increase of gaming audience enables marketers to expose their brand messages to a vast population and thus makes computer games an attractive format of product placement.

Given the increasing practice of advergames and its likely potential as an alternative entertainment medium, research studies have been conducted to explore its efficacy as a cogent tool of communication. Studies have been conducted in order to understand the impact of advergames on brand recall and recognition (Cauberghe & De Pelsmacker, 2010; Van-Reijmersdal, Rozendaal, & Buijzen, 2012), brand attitude (Mackay, Ewing, Newton, & Windisch, 2009), and brand choice (Hernandez & Chapa, 2010). However, while the effects of playing advergames have been established, a unique research problem in this context still exists. One primary facet of gaming that has been least studied is the role of game outcomes on players' motivation (wins and losses) and the effect of outcome-induced motivation on information processing by the gamers. It may be also noted here that game outcomes are, nevertheless, important to consider because they have been shown to influence the mood of players (End, Worthman, Foster, & Vandemark, 2009; Hirt, Zillmann, Erickson, & Kennedy, 1992). Hence, one salient objective of the present research is to develop a conceptual framework to understand the relationship between specific game outcomes and the motivational nature of gamers. For this purpose, the present article derives its conceptual fabric from an underlying principle of motivation, the Regulatory Focus Theory (Higgins, 1997).

One more lacuna that exists in extant research dealing with product placement in games is that most of the studies in the domain of advergames have investigated the impact of playing advergames on gamers' explicit memory, that is, recall and recognition (Jeong, Bohil, & Biocca, 2011; Van-Reijmersdal et al., 2012). This measurement bias is a by-product of the dominant assumption that learning requires attention, effort, and concentration. In other words, only cues available to consciousness should impact behaviour. However, informational cues might also impact consumers' unconscious memory, also popularly known as implicit memory (Graf & Masson, 2013; Sun, 2012). Likewise, consumers' purchase decisions and behaviour might also be influenced by unconscious memory processes, specifically at the time of purchase in stimulus-based situations (Coates, Butler, & Berry, 2006; Lee, 2002; Samu & Krishnan, 2010). Furthermore, the impact on implicit memory is most salient when consumers' attention is divided between primary and secondary activities, for example, processing product placements in movies (Sharma, Chadha, & Goyal, 2014; Spataro, Mulligan, & Rossi-Arnaud, 2013). Advergames, where players' attention is divided between playing the game and processing brand related information, thus provide a perfect opportunity to test players' implicit memory for brands placed in the games.

The present paper attempts to achieve the following - (a) conceptualize a relationship between game outcomes and outcome induced motivation defined in terms of regulatory focus of gamers, (b) develop a conceptual framework to explore the influence of players' induced regulatory focus on emotions, implicit and explicit memory, and attitude toward the advergame and embedded brands. The article proceeds as follows. Two literature streams on which the conceptual framework is built - namely, regulatory focus and implicit memory, are first discussed. These streams are then used to generate predictions and research propositions.

## Literature Review

↳ **Regulatory Focus as a Motivational Principle :** Extant research theorizing motivation has unanimously supported the view that motivation is a hedonically driven process in a sense that people are motivated to seek pleasure and avoid pain. It was Higgins (1997) who first coherently proposed to move beyond the hedonic

principle of motivation and explore other self-regulatory principles that underlie people's approach and avoidance behaviour. Eventually, Higgins (1997) came up with the regulatory focus (RF) theory that directionalizes the hedonic principle of motivation, but varies significantly in terms of motivational repercussions. The RF theory distinguishes between two types of self-regulation and motivation termed as promotion focus and prevention focus (Crowe & Higgins, 1997; Manczak, Zapata-Gietl, & McAdams, 2014). Promotion focused individuals are sensitive to presence and absence of positive outcomes, and are motivated to attain or approach these positive outcomes. On the other hand, prevention focused individuals are sensitive to absence and presence of negative outcomes, and are motivated to avoid these negative outcomes (Crowe & Higgins, 1997; Higgins, 1997). To put things slightly differently, promotion focused subjects self-regulate themselves in relation to desired end states defined in terms of ideal standards, that is, advancement, goal, and accomplishments, and prevention focused subjects self-regulate themselves in relation to desired end states defined in terms of ought standards, that is, duties, obligations, safety, and responsibility (Higgins, 1997, 1998).

Lastly, research on regulatory focus delineates the strategic implications and the processes adopted by individuals in order to achieve their desired goals and objectives. Promotion focused subjects take an approach strategy and concentrate in maximizing the positive outcomes, while the prevention focused subjects embrace an avoidance strategy and contemplate in minimizing negative outcomes (Higgins, 1997, 1998). For example, "to get a good score in an ensuing exam," it is expected that promotion focused students will tend to study hard at the library, while prevention focus students will avoid partying out frequently with friends.

Although both the foci are present in all individuals, one particular focus (either promotion or prevention) is chronically more accessible (Molden, Lee, & Higgins, 2007). Even more importantly, it might be noted here that regulatory focus is not limited to being only a chronic individual difference variable. Situational factors like performance feedback and task contingency can also induce either a promotion or a prevention focus within individuals (Weber & Meyer, 2011; Zhu & Meyers-Levy, 2007).

These distinctions are important to be considered because they suggest that a particular type of regulatory focus may be actuated momentarily within subjects through positive/negative focus feedbacks about their performance in a task given to them. An advergaming context engenders wins and losses as two distinct states of situational outcomes. Hence, a key question the present research addresses is whether winning or losing an advergame followed by success or failure feedbacks given to game players induce promotion focus or prevention focus in them. Understanding these distinctions, the nature of behaviour, and strategic inclinations of two regulatory foci will help conceptualize a relationship between game outcome and outcome induced motivation. Furthermore, since this research attempts to explore the influence of game players' regulatory focus on their implicit brand memory and brand attitude, knowledge about distinct self-regulatory systems and their strategic dispositions will aid in conceptualizing these effects.

↳ **Implicit Memory and its Underlying Processes :** During the last few decades, memory researchers have shown tantamount interest in both explicit and implicit memory, have drawn comparisons between them, and have explored techniques to measure them in a variety of settings, including advertising and communication effectiveness (Goode, 2007; Samu & Krishnan, 2010; Yoo, 2007).

Explicit memory refers to conscious and intentional recollection or retrieval of previous stored information or experiences, and is assessed by traditional tests of recognition and recall. In contrast, implicit memory refers to changes in task performance or observed behaviour produced by priming effects of prior experiences without the conscious or intentional retrieval of those experiences (Graf & Masson, 2013). Memory researchers have empirically investigated this unconscious nature of implicit memory by exploring dissociations between explicit and implicit memory (Gopie, Craik, & Hasher, 2011; Mulligan, 2012) in a sense that certain variables like level of processing and divided attention at stimuli exposure impact explicit memory but leave implicit memory unaffected (Bechtel, 2008; Spataro et al., 2013).

Cognitive psychologists propose the Transfer Appropriate Processing Framework to explain the dissociation between these two types of memory (Jacoby, 1983; Parks, 2013). According to this approach, dissociation between

an implicit and explicit memory test reflects dissociation in different cognitive operations required at the time of the tests (Roediger III, 1990). While explicit memory depends on conceptually-driven cognitive operations during encoding and retrieval, implicit memory depends on perceptually-driven (data- or visually-driven) mechanisms (Boehm & Sommer, 2012; Dew & Mulligan, 2008; Mulligan, 2012). More is the extent of overlap of these cognitive operations between encoding and testing conditions, better is the performance on explicit and implicit memory tests (Lee, 2002; Yoo, 2007).

To delineate briefly the nature of these cognitive operations, conceptual (or semantic/elaborative) processing refers to meaning-based processing of exposed stimuli (words, brand names, pictures, etc.) where the exposed stimuli is processed in fuller details, and their meaning is derived in relevance to the context in which it is presented (Berry, Shanks, Speekenbrink, & Henson, 2012; Krishnan & Shapiro, 1996). Conversely, perceptual (or visual/data-driven) processing reflects superficial processing of the perceptual cues and surface features of the stimuli (Boehm & Sommer, 2012; Spataro et al., 2013).

Advergames provide an excellent opportunity to scrutinize whether these cognitive operations underlie game players' performances in unconscious and conscious tests of memory retrieval. Moreover, once the relationship between game outcomes and motivational nature of players are conceptualized, it will be imperative to use the transfer appropriate processing framework to gestate the influence of outcome-induced motivational nature expressed in terms of players' regulatory focus on their explicit and implicit memory of brand elements embedded in the advergame.

## Propositions

**Antecedents to Induced Regulatory Focus - Game Outcomes :** The present study explores whether a regulatory focus of a specific kind is induced within a subject due to repeated wins or losses in the advergame that he or she plays. Clearly, wins and losses resemble desired and undesired end states of an advergame. It is expected that repeated wins in few initial trials of game playing prime winning as the desired end state among the players, and they are not concerned about losing the advergame, but are more concerned about presence of similar or better outcomes/performances in subsequent game trials. This actuates a promotion focus among players who repeatedly win the advergame, resulting in a strategic inclination to make progress by approaching similar/better performances in subsequent game trials (Crowe & Higgins, 1997). Therefore, players who repeatedly win the game in few initial trials will be in a state of *eagerness* with the goal of attaining better performances, scores, or gains as they play the game more number of times.

On the other hand, it is to be expected that repeated losses in few initial trials prime not losing as the desired end state among the players. What concerns them more is not winning the advergame, but the absence of similar or worse outcomes/performances in subsequent game trials. This actuates a prevention focus among players who repeatedly lose the advergame, resulting in a strategic inclination to be precautionary and prudent so as to avoid making any further mistakes in the subsequent game trails (Crowe & Higgins, 1997; Higgins, 1997). Therefore, players who repeatedly lose the game in few initial trials will be in a state of *vigilance* with the goal of attaining no further decrease in performances or game scores as they play the game more number of times. However, there is no logical acumen to believe that wins induce only promotion focus, and losses induce only prevention focus. Intrinsically, one of the salient propositions of the regulatory focus theory is that individuals' promotion or prevention focuses are not discrete motivational states, but they reflect the predominance of one particular focus over the other in individuals (Higgins, 1997). Based on this discussion, the following proposition is made:

➔ **P1: Winning an advergame will induce more promotion focus than prevention focus, while losing an advergame will induce more prevention focus than promotion focus in players.**

**Antecedents to Induced Regulatory Focus - Performance Feedbacks :** One prime facet of regulatory focus

theory revolves around the fact that either promotion focus or prevention focus could be induced in people by means of appropriate feedbacks (Crowe & Higgins, 1997; Roney, Higgins, & Shah, 1995). Specifically, Higgins (1997) delineated how momentary situation like performance feedbacks can induce a specific regulatory focus. Beyond the valence (positive or negative) of end states/consequences of any event, a positive focus feedback with gain-nongain information is capable of actuating promotion focus ; whereas, a negative focus feedback with non loss-loss information is capable of actuating prevention focus in people (Higgins, 1997; Roney et al., 1995).

Few studies have also examined the nature of interaction between individuals' chronic regulatory focus (promotion or prevention) and valence of feedback (positive or negative) (Idson & Higgins, 2000; Van-Dijk & Kluger, 2004). For example, the study conducted by Idson and Higgins (2000) found that promotion focused subjects improved their performances more (over time) when they received success feedbacks rather than failure feedbacks ; whereas, prevention focused subjects improved their performances more (over time) following failure feedbacks rather than success feedbacks. However, what was discouraging in the procedure followed in these studies was that these success and failure feedbacks were concerned more about the valence of the real success or failure of individuals rather being concerned about how the feedback was formed, that is, whether they were formed with a positive focus or a negative focus.

As suggested by Roney et al. (1995), it may be noted here that following a real success, for example, solving an anagram correctly, a feedback could be framed either with a positive focus (e.g., "right, you got that one") or with a negative focus (e.g., "you did not miss that one"). On the other hand, following a real failure, for example, not being able to solve an anagram correctly, a feedback could be framed either with a positive focus (e.g., "you didn't get that one right") or with a negative focus (e.g., "no, you missed that one"). These positive focus feedbacks are concerned about the presence and absence of positive outcome, that is, gain-nongain information, and induce promotion focus momentarily , while the negative focus feedbacks are concerned about the absence and presence of negative outcomes, that is, non loss-loss information, and induce prevention focus momentarily (Higgins, 1997, 1998).

In the context of playing an advergame, it is expected that over and above the nature of results encountered by players after few initial trials, the valence of the feedbacks provided will induce in them either a promotion focus or a prevention focus. To segregate the influence of game outcomes (wins or losses) from that of focus of feedbacks (positive or negative) on regulatory focus, it becomes essential to counter-balance valence of game outcomes with valence of feedbacks. Based on this discussion, the following proposition is made :

**➔ P2: Positively framed message feedback to losers will induce more promotion focus than prevention focus, while negatively framed message feedback to winners will induce more prevention focus than promotion focus.**

↳ **Consequences of Induced Regulatory Focus - Implicit and Explicit Memory :** Marketing practitioners would not benefit by merely understanding how game outcomes and feedbacks differentially induce distinct forms of regulatory foci in game players, unless they are aware about the consequences of gamers' induced regulatory foci on their nature of processing of information about embedded brand elements. The present study conceptualizes that regulatory foci is induced by few properties of an advergame playing situation - through repeated wins or losses in few initial trials, and through positive and negative focus feedback mechanisms after each such trial. In either case, players in a promotion focus state will have different strategic inclinations as compared to players in the prevention focus state (Crowe & Higgins, 1997).

A promotion focus state is concerned with advancement, growth, and accomplishment, and is strategically inclined to approach matches between current actual state and desired end state (Higgins, 1997, 1998). In terms of motivational consequences, a promotion focused individual will be in a state of eagerness and will focus on increasing the gains and avoid omitting any possible opportunity of accomplishments (Crowe & Higgins, 1997). In the present advergaming context, it is expected that players in the promotion focused state (either due to achieving wins or due to receiving positive focus feedbacks) will be eager to progress in subsequent game trials by attaining similar/better performances relative to initial trials. Alternatively, they will be not be concerned about reduced

performances in subsequent trials and will not be motivated to process game-related stimuli in an elaborative or conceptual manner. Hence, promotion focused players will be engaged in perceptual processing of visual and peripheral cues present in the gaming environment, including embedded brand elements. Therefore, they will exhibit higher implicit memory for brands as it depends on perceptual or data driven information processing during stimuli exposure condition (Dew & Mulligan, 2008; Mulligan, 2012). However, their explicit memory for brand names will be low as it requires elaborative and conceptual processing (Dew & Mulligan, 2008; Jenkins & McDowall, 2001; Spataro et al., 2013).

Conversely, a prevention focus state is concerned with safety, security, and responsibility, and maintains a strategic inclination that avoids mismatches between current actual state and desired end state (Higgins, 1997, 1998). In terms of motivational consequences, a prevention focused individual will be in a state of vigilance and will focus on attaining non losses and avoiding making mistakes (Crowe & Higgins, 1997). While playing advergames, it is expected that players in the prevention focused state (either due to facing losses or due to receiving negative focus feedbacks) will be vigilant in subsequent game trials so as not to lower their performances any further. They will also insure against errors of committing mistakes that may further reduce their scores. The prediction is that they will be relying more on context-specific information and will be more analytical in their approach in terms of processing game objects, including game related stimuli and embedded brands in fuller details, resulting in processing of every piece of available information in an elaborative and conceptual manner. Therefore, they will exhibit higher explicit memory for brands as it depends on conceptual or elaborative information processing during learning (Boehm & Sommer, 2012; Jenkins & McDowall, 2001; Mulligan, 2012). However, their implicit memory for brand names will be low as it requires perceptual or data-driven processing (Dew & Mulligan, 2008; Jenkins & McDowall, 2001; Mulligan, 2012). Based on this discussion, the following propositions are made:

➔ **P3a: Players who are more promotion focused will have higher implicit memory for brands than players who are more prevention focused.**

➔ **P3b: Players who are more prevention focused will have higher explicit memory for brands than players who are more promotion focused.**

**Consequences of Induced Regulatory Focus - Attitude Towards Advergames and Attitude Towards Brands :**

Extant research suggests that individuals in the promotion focused state exhibit higher motivation and better performances than those in the prevention focused state (Crowe & Higgins, 1997; Johnson, Shull, & Wallace, 2011; Lanaj, Chang, & Johnson, 2012). This is primarily because promotion focused individuals are more concerned about presence of positive outcomes (gains) and are more eager to increase their gains (Higgins, 1997, 1998). Alternatively, prevention focused individuals are more concerned about the absence of negative outcomes (non losses) and are more vigilant against incurring further losses (Higgins, 1997, 1998).

Following these tendencies, it may be predicted that players within whom promotion focused strategies are induced, either due to repeated initial wins or due to positive focus feedbacks after game trials, will do better in subsequent trials in order to increase their scores and performances. These enhanced performances result in a more positive mood (Hirt et al., 1992), which is infused in the individual and reflects in terms of more favourable judgments and attitude towards the game and the embedded brands (Forgas, 1995; Geuens, De Pelsmacker, & Faseur, 2011).

On the other hand, it may be predicted that players within whom prevention focused strategies are induced, either due to repeated initial losses or due to negative focus feedbacks after game trials, will exhibit lower performance in subsequent trials because their goal is not to increase gains, but to avoid or arrest further decrease in performance. This will infuse much lower positive mood in prevention focused individuals and will be reflected in terms of less favourable judgments and attitude towards the game and the embedded brands. Based on this discussion, the following proposition is made:

➔ **P4: Players who are more promotion focused will evaluate the brands and the advergame more favourably than players who are more prevention focused.**

↳ **Consequences of Induced Regulatory Focus - Emotions :** As promotion and prevention focused individuals endeavour to bridge the distance between their current actual self-states and desired end states, they encounter different affective reactions (Winterheld & Simpson, 2011). The emotional experiences attached with the presence and absence of positive outcomes for promotion focused individuals consist of cheerful-related feelings and dejection-related feelings ; whereas, the emotional experiences attached with absence and presence of negative outcomes for prevention focused individuals comprise of quiescence-related feelings and agitation-related feelings (Crowe & Higgins, 1997; Higgins, 1987, 1997). Furthermore, improvement in performances by promotion focused and prevention focused individuals leads to a decrease in their dejection-related and agitation-related feelings respectively (Roney et al., 1995).

Similar results are expected for players who play the advergames a repeated number of times. Though it is predicted that promotion focused players will perform better in subsequent game trials relative to prevention focused players, there is no reason to presume that prevention focused players will not be able to improve their scores at all as they play the advergame over and over again. Intrinsically, as players play advergames more number of times, their overall game playing experience, familiarity with the gaming environment, and manoeuvring skills of the gaming consoles improve (Boot, Kramer, Simons, Fabiani, & Gratton, 2008; Kureshi & Sood, 2009). It is ,therefore, predicted that promotion focused players will improve in their dejection-related emotions if they are able to better their performance on subsequent game trials. On the other hand, prevention focused players will improve in their agitation-related emotions if they are able to avoid or arrest further reduction in game performance in subsequent trials. Based on this discussion, the following propositions are made:

➔ **P5a: Players who are more promotion focused will show improvement in dejection-related emotions followed after better performance in subsequent game trials.**

➔ **P5b: Players who are more prevention focused will show improvement in agitation-related emotions followed after avoiding reduced performance in subsequent game trials.**

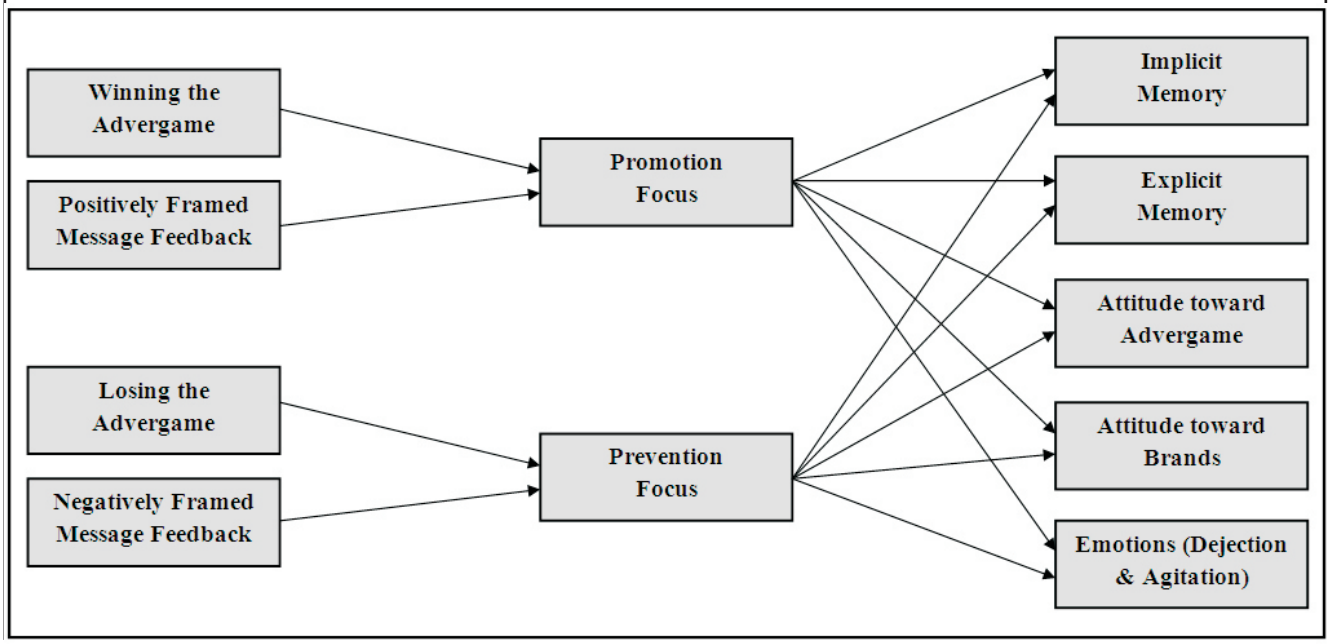
The entire conceptual framework with proposed relationships is depicted in the Figure 1.

## Discussion

Taken as a whole, the overall conceptual model proposed in the present paper provides a general overview about the role of motivation in processing brand-related information embedded in an advergame. It is proposed that distinct situational outcomes in the form of wins and losses have the potency of inducing different types of regulatory foci within game players. The model also highlights the influence of valence of performance feedbacks given to players on their induced self-regulatory states. Furthermore, the framework proceeds to explain how induced promotion or prevention focus of gamers may differentially affect their nature of information processing. Promotion focused gamers have the tendency to get engaged in perceptual processing of visual stimuli available in the gaming environment, including embedded brand elements (brand names, logos, messages, etc.).

On the other hand, prevention focused players exhibit the tendency of processing available information in a conceptual and elaborative manner. These differences primarily reflect strategic inclinations of each of the two self-regulatory states, promotion and prevention. While promotion focused players try to achieve better performances with each repeated game trials, prevention focused players focus on avoiding any further abatement in their performances in subsequent trials. Following this, the model throws light on players' implicit and explicit memory for embedded brands, brand and game attitude, and players' emotional reactions. By deriving the conceptual acumen from transfer appropriate processing framework, it is suggested that perceptual processing of

**Figure 1. Conceptual Framework of the Research**




brand stimuli will lead to an enhancement in implicit memory for brands rather than explicit memory ; whereas, conceptual processing of brand elements will enhance players' explicit memory, rather than implicit memory.

Concurrently, gamers in a promotion focused state will exhibit more favourable attitude towards the advergame and the embedded brands as compared to gamers in the prevention focused state, primarily due to higher motivation and better performance. Lastly, the present paper discusses how different types of emotional reactions are experienced by gamers within whom different regulatory foci are induced. Promotion focus players experience improvement in their dejection-related emotions, for example, less disappointment, and the prevention focused players experience improvement in agitation-related emotions, for example, anxiety and tension.

## Academic and Managerial Implications

The proposed conceptual framework contributes to academic research dealing with product placement in computer games by exploring an unstudied, yet primary facet of advergaming, victory and losses, and their effect on game players' nature of motivation depicted in terms of regulatory focus. Even beyond the valence of the gaming outcomes, what is more important is to examine the role of feedbacks given to players on their distinct regulatory states. This paper thus contributes to advergaming research in terms of assessing the motivational nature of players induced by means of performance feedbacks. Furthermore, while existing studies concentrate mostly on brand recall and brand recognition measures, the present research conceptually explores the influence of distinct regulatory states of players on their unconscious memory processes by using real-life situations like stimulus-based brand choice decisions. Finally, while the impact of mood on information processing is already investigated, this paper extends this body of knowledge by examining the influence of regulatory focus driven performances on players' moods, which subsequently affect their attitude towards the game(s) and attitude towards the brands embedded in the game(s).

From the managers' perspective, the proposed model aims to aid managers in designing an advergame with different challenges and opportunities. If it is empirically validated that winning and losing an advergame influences players' motivational natures differently, which further impacts their memory (implicit and explicit), attitude, and emotions, managers would be able to develop advergames of varying difficulty levels as per their

requirements. For example, if a manager wants to increase players' explicit memory, he would make the game tougher so that players remain in a prevention focus mode and get engaged in conceptual information processing. Conversely, another manager who seeks to rely on consumers' implicit memory can design an easy advergame with more chances of winning. Furthermore, the present research seeks to depart from existing studies dealing with advergame effectiveness and suggests an alternative memory measure - implicit memory - to managers in order to understand the subtle effects of advergames.

## Limitations of the Study and Scope for Future Research

Our research propositions are not free from limitations. First and foremost, we framed our research propositions based on the theoretical justifications of regulatory focus framework and implicit memory paradigm. Future research should be conducted to empirically validate the proposed relationships in order to increase the applicability and generalizability of the proposed research framework. In addition, our research examines the influence of game outcomes in the form of wins and losses on the nature of information processing of gamers. While game outcomes have been proposed to have significant effects on players' emotions, memory and brand attitudes, we restricted ourselves from investigating change or switching of players' promotion focus to prevention focus and vice versa as they continue winning or losing over repeated game trials. Future research may tap into this area and examine how changes in game outcomes lead to nature of change in players' regulatory foci. As players develop idiosyncratic skill sets while playing different types of advergames, or computer games in general, it is not difficult to assume that they would tend to apply their gaming skills to improve their performances. Thus, future research may address change of players' regulatory foci as their game performances also change over a period of time.

The context of the overall framework proposed in this paper is restrained by the condition that the same advergame is played over and over again. Though advergames are smaller in length than usual PC based offline games and promote repeated trials, whether a game is repeatedly played or not could not be manipulated totally in real-life situations and, is therefore, left for the player to decide. Future research may be conducted to determine how players' regulatory focus is induced when they themselves decide the number of times they would play the advergame. Finally, the present paper only highlights implicit memory as an alternative memory measure and does not suggest any particular test for the same that fits an advergaming context, for example, word-fragment completion test or stimulus-based choice task, and so forth. Future research needs to explore empirically, consumers' implicit memory by adapting a suitable test for the same. As marketers seek to identify the impact of playing an advergame on players' memory, they may also use some of these specific implicit memory tests other than their normal brand recognition or recall tests.

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