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Can music improve e-behavioral intentions by enhancing consumers' immersion and experience?

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ABSTRACT

Websites must involve visitors in enjoyable and memorable experiences to entice people to revisit and recommend them. This article investigates the impact of music and seeks to explain e-behavioral intentions through two underlying processes: immersion and experience. A total of 250 persons were surveyed for their intentions to re-visit and recommend a virtual art gallery. The results reveal that music fosters e-behavioral intentions. They also emphasize that immersion and aesthetic experience (emotions and contemplation) mediate this effect. The findings, confirming the impact of music on immersion, could thus help managers design more effective Websites.

1. Introduction

To be effective, Web communication must offer liveliness and foster a rich consumer experience [16]. Consumers seek experiences (real or virtual) by consuming goods and services. Memorable experiences [65] in turn grant marketers a competitive edge. If Website designers can immerse visitors in a great experience, these consumers will likely return and spread positive word of mouth. However, despite extensive research into online effects, recommendations regarding how to design Websites to optimize customer experiences have remained lacking [83], including "whether and how" different Web elements, attributes, and tools, as well as their combination, impact consumer's psychological and behavioral reactions [88]. In turn, several sources have called for investigations of online "experiential intensity" [20].

In response to those calls, this article extends the research on web interface efficiency and Website behavioral intentions as proxies for e-loyalty intentions by studying the effects of music online and proposes a new conceptualization and operationalization of the notions of immersion and experience in the field of consumer research. The existing studies have emphasized some elements that influence users' attitudes toward Websites [31], such as content, design, and architecture. However, elements such as entertainment should exert influences as well [11], especially on low involvement sites [70]. Very few studies have included music, despite strong evidence that music influences product evaluation and buying intentions in virtual shopping experiences [79] or emotional responses to e-commerce sites [12]. Following the suggestion of Chebat and Dubé [10] "to link more clearly variations in specific parameters of the environment to their unique impact on various customer responses while delineating the mechanisms under which each parameter operates" (p. 90), this study investigates how music improves both immersion and esthetic experiences, in turn mediating the impact of music on users' e-behavioral intentions (i.e., revisits and recommendations).

Accordingly, this research provides several contributions. First, the empirical testing features the effects of Web atmosphere (music) on an under-examined factor, e-behavioral intentions, as a proxy for e-loyalty (instead of purchase intentions), which has significant effects on direct marketing strategies [39,43,46,74]. Second, music represents an atmospheric element that can produce a cognitive, emotional and/or physiological answer, which in turn could prompt positive consumer response. Third,

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this study focuses on an experiential Website, which is an increasingly prevalent type of site that has rarely appeared in prior research (focusing on online grocery stores). Fourth, the present research explicitly considers and measures two relatively poorly understood processes, immersion and experience, which could offer significant explanatory power [27].

This article adopts the following organization. Section 2 defines the conceptual model and outlines how immersion and experience mediate the effects of music on intentions to revisit and to recommend the Website. Section 3 presents the virtual art gallery experiment (with and without music), using the work of a real painter and sculptor. The results of the hypothesis tests appear in Section 4. Finally, specific recommendations are offered for designing experiential Websites to foster visitors' intentions to revisit and to recommend in Section 5.

2. Background

This research adopts the stimulus–organism–response model [70,23], which "provides an integrative framework for synthesizing existing research on Website experience" [61]. In the proposed model, both immersion and experience (organism) mediate the effects of music (stimulus) on e-behavioral intentions (response). For this study, the experience is esthetic, conceptualized in terms of emotions (enjoyment and stimulation; [41] and contemplation [15,21]). Following Chebat and Dubé [10], the present study proposes that a Web atmospheric stimulus (e.g., music) impacts visitors' responses – intentions to revisit and to recommend (e-behavioral intentions) – through two explanatory processes: immersion and experience.

2.1. Impact of music (stimulus) on immersion (organism)

Studies of sound design have confirmed the complementary role of the auditory experience on the response of consumers to a product [86]. Additionally, if the music is a congruent stimulus (that is, if it provides appropriate and consistent additional information), it promotes memorization of the advertising message [32], creates positive emotions [55], and participates in the whole evaluation of the point of sale [37,1].

Concerning consumer behavior on the Internet, the various atmospheric elements of a Website, including auditory stimuli, affect all levels of consumer processes. Actually, Dailey [18] suggested extending atmospheric variables to Websites, which can contribute to the development of virtual environments and can create positive affect and/or cognitions among Website visitors and thus prompt positive consumer responses, exactly as in the real world [59]. Web environments produce cognitive pleasure through mental imagery [24], which affects consumers' experience assessments. Consistent with the PAD (Pleasure-Arousal-Dominance) model from Mehrabian and Russel [56], environments also physiologically affect consumers through vividness and volume (arousing quality of stimuli), which translate into positive or negative responses (e.g., returning, or not, to the Website; spending more or less time on the site [70]). Music is one of those Internet atmospheric elements that can be used to produce physiological (arousing), cognitive and emotional (positive or negative) effects to increase the probability of sale.

Indeed, Web atmospherics include both highly task-relevant cues that are critical to utilitarian goals and less task-relevant cues that support hedonic goals [22]. The former encompass navigational characteristics, informativeness, information content effectiveness, structure, and organization; the latter tend to entail entertainment [70]. Sautter et al. [77] also add the operator environment and specific stimulus properties (e.g., vividness, interactivity, symbolism, social elements) to this categorization. Some cues are particularly relevant for an experiential Website, in terms of "creating or not impeding the experience of surfers" and providing entertainment such that the cues help address users' "needs of escapism, diversion, esthetic enjoyment or emotional release" [70]. Thus, music is worth investigating as a means for understanding how navigating on an art Website that includes music leads to a particular consumption experience, through a connection to contextual elements that creates an immersion state.

Sensory stimuli, such as music, can encourage immersion [31]; when listening to music, people tend to forget themselves and become detached from everyday concerns. "Dreamy" is a common description of emotive responses to music [91]. People seem to move into a mental state in which self-interest and threats from the real world are less relevant. This type of disconnection might result from attention distraction: either cognitive, in the form of reduced attention capacity, or emotional, such that people engage in an emotional sensation [60]. Emotional engagement with the stimulus can create the strongest distraction [72,28].

Thus, music offers a particularly fitting stimulus that captures and holds attention naturally, by building melodic and rhythmic tensions [57]. Theories about the psychology of music have cited emotional factors beyond the music and have emphasized the emotional component of distraction such that listening creates an associative connection with personal memories and meanings [91,58]. Disconnection from the real world and connection to a virtual environment (immersion) can result when the environment features music.

2.2. Immersion and esthetic experience fostered by virtual art galleries

2.2.1. Immersion

Conceptualizations of immersion refer to either technology or the individual. The former research stream refers to "a technology's ability to create a convincing, immersive environment with which the user can interact" [78], according to five characteristics: inclusiveness, extensiveness, surroundingness, vividness, and proprioceptive matching [81]. The latter stream defines immersion as "involvement and emotional engagement" [78], referring to "a psychological state characterized by perceiving oneself to be enveloped by, included in, and interacting with an environment that provides a continuous stream of stimuli and experiences" [89]. Immersion based on technology, e.g., sensory immersion, is a matter of form, whereas immersion based on individual interactions with the environment, e.g., psychological immersion, is a matter of content [78].

This study adopts the second view because the focus is on consumers' reactions in an environment that is not technologically sophisticated: a simply designed Website. Thus, immersion in this study is a psychological state, characterized by being connected with the world offered by the experiential context and disconnected from the real or ordinary world [27]. Immersion implies that the experiential context completely invades people's perceptual and emotional systems and psychological processes such that the immersed persons become involved, absorbed, and totally committed [47]. Forgetting about the reality of the outside world, these people forfeit a real self-image for a new image that is perceived only through the experiential context.

However, immersion is not linear, and it might not be a permanent state. Consumers involved in an esthetic experience tend to sense a succession of moments of immersion [8]. The level of intensity relates to the personal, global perception of successive sequences of immersion states, which are felt during the overall experience. The perceived intensity of an immersion state, in turn, depends on the duration of each immersion period and on the number of connections/disconnections, which are more intense when immersion moments last longer and when there are fewer disconnections [25].