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The Effect of Website Physical and Social Environments on User's Emotion and Behavioral Intentions in University Setting

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Abstract :

Purpose – This paper aims provide a conceptual framework concerning the relationship of website physical and social environments, user positive emotion and behavioral intentions in university setting.

Design/methodology/approach – We proposed conceptual framework to examine relationships between website physical and social environments, positive emotion and users' behavioral intentions.

Practical implications – This paper offers guidelines in designing university's website that emotionally touched the users that lead to certain behavioral intentions. It will be interesting to examine the relationship among variables in the proposed model.

Research limitations – This study concerned only on website physical and social environments in a university setting.

Originality/value – No research found in Indonesia which describes the role of website physical and social environments on users' emotion in university setting.

***Keywords** – Website physical environment, social environment, pleasure feeling or positive emotion, university, behavioral intentions.*

INTRODUCTION

Today internet is known as a very powerful platform that has changed forever the way people do business, and the way they communicate. The Internet has given a "Globalized" dimension to the world. Internet has become the universal source of information for millions of people, at home, at school, and at work. (www.internetworldstats.com/emarketing.htm, 2014).

New figures released by ITU (2014), indicated that by end 2014, the number of Internet users globally will have reached almost 3 billion. Two-thirds of the world's Internet users are from the developing world. This corresponds to an Internet-user penetration of 40 per cent globally, 78 per cent in developed countries and 32 per cent in developing countries. Indonesia has ranked 13 in term of number of internet users by country in 2014 that reached around 55 million of users in 2014. (www.internetlivestats.com,2014).

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Website development has been growing rapidly in various areas such as education, government, museum, business, entertainment, and health. (Mebrate, 2010).

A direct connection between brands and people is being created on the web, it will be a challenge for traditional media (Gobé, 2009).

Many companies pay special attention to develop their web sites to enhance customers' overall online experience of the company because customers' interactions with companies' online environmental settings influence their emotional responses as well as their behaviors i.e. return or purchase intention (Lee and Jeong, 2012).

Atmospherics refer to factors of the environment that evoke emotional, perceptual, and behavioral consumer responses (Kotler, 1974). Several researches have examined how atmospherics such as music, color, and scent influence emotional, perceptual, and/or behavioral responses in traditional brick-and-mortar stores (Turley and Milliman, 2000).

Many studies have shown that physical environment, also has been conceptualized by scholars using several different terms such as "servicescape "(Bitner 1992), "atmospherics" (Kotler, 1973), "service environment" (Cronin, 2003).

With the increasing competition, service firms must improve their physical environments to attract customers. Physical surroundings are more important in service settings because customers as well as employees often experience the firm's facility (Bitner, 1992).

Edvardsson et al (2005, 2010) developed the notion of an "experience room" including physical and intangible artefacts, technology, and various social elements. Furthermore it was mentioned that customers can infer an anticipated service experience from physical artefacts i.e. lighting, décor, and layout of pre-use environment such as website, showroom or information event. Several frameworks have adopted holistic view which included social factors in analyzing the physical environments (e.g. Edvardsson et al, 2005, 2010; Bitner, 1992, Baker , 1986).

The Internet has created a new type of electronic physical environment, the *e-scape*, based in cyberspace (Koernig , 2003). E-servicescape in service companies such as hotels is especially important, since a web site provides customers with diverse opportunities to preview the property before they actually visit the location. (Lee and Jeong, 2012). A servicescape refers to an organization's physical environment, including overall layout, design, decoration, and aesthetics.

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The term e-servicescape is the development of taking the qualities of physical servicescapes and applying them into the online environment (Koernig , 2003), that lead to customers' internal states and their behaviors.

Several Studies (Eroglu et al., 2001; Harris and Goode, 2010) identified e-servicescape employing different stimuli; however, little studies have investigated the role of social factors in the e-servicescape and the e-servicescape based on the holistic view.

Harris and Goode's (2010) found that e-servicescape dimensions i.e. Aesthetic appeal, layout, and financial security influenced consumers' trust in the web site and further their purchase intentions. In addition, Eroglu et al. (2001, 2003) identified e-servicescape as high task relevant and low task relevant, based on the media richness theory. Therefore, this study adopted holistic view of e-servicescape as online atmospherics that include ambience, design, and social elements.

This paper will discuss the importance of atmospherics in facilitating users' behavior in the university website environment.

Universities which want to have a competitive edge in the future may need to begin searching for new and creative ways to attract, retain, and foster stronger relationship with students. Higher education students today are different from the students in the past. Those entering higher education have more information, greater needs and more choices from previous students. (Hermawan , 2001).

As organizations have become aware of the strategic importance of websites, the trend to use websites for various purposes has increased in various areas . However, organizations seeking to have benefits from their websites need to create and maintain websites that support the interaction and communication of the organization with their users. (Mebrate, 2010).

Increasing attention has been paid to the influence of physical environment on human psychology and behavior in various academic fields, such as architecture, environmental psychology, retailing, and marketing (Donovan& Rossiter, 1982; Turley & Milliman, 2000). The literature in those suggests that customer reactions to the physical environment are more related to emotional states than cognitive perception, particularly in the hedonic consumption situation (Donovan & Rossiter, 1982; Turley & Milliaman, 2000).

Although there is a substantial amount of research about the influence of the physical environment on human psychology and behavior, previous research has been focused to one or a few particular physical environmental elements. Limited studies about combine effect of multiple elements that make up the physical environment. Because physical environment is believed to be one of the most influential factor

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affecting a customer's psychological state and behaviors Meanwhile, most studies concerning this factors emphasized and conducted in off line settings situation. Thus the current paper tried to fill the research gap by providing conceptual framework concerning the effects of users' perceptions of physical environment and social environment on their positive emotion which could have an impact on their intended behaviors in on line or website settings of university website.

CONCEPTUAL BACKGROUND

Website physical environment and user emotion

There are various terms found in literature to conceptualize the context of physical and non-physical aspect of service delivery. For instance the "physical environment" (Baker, 1987), "servicescape" (Bitner, 1992); "Store environment" (Roy and Tsai, 2003); "Service environment" (Cronin, 2003); Atmospheric experiences (Slåtten et al., 2009);"Dining atmospheric "(Liu and Jang, 2009).

Many studies have shown the important role of physical environment in determining customers' evaluation of service. Kotler (1973) conceptualized the term as atmospherics, as perceived via customer's five senses. Furthermore Baker (1986) included ambience and design factors and social factors (referring to employees and customers).

However, while advances have been made in conceptualizing and examining servicescapes in offline setting , the online context has been neglected (see koernig, 2003). A study of Szymanski and Hise (2000) found that there were a significant relationship among convenience, merchandising, site design, financial security, and e satisfaction. Wolffinbarger and Gilly (2001) describe four dimensions which consumers use to evaluate websites i.e. convenience, selection, informativeness, and lack of sociality. Furthermore, Srinivasan et al. (2002) proposed a framework concerning the antecedents of e-loyalty: customization, contact, interactivity, cultivation, care, community, choice, convenience, and character dimensions.

Ambience and design factors and positive emotion

Physical environments play an important role in service delivery because it can foster pleasant emotional reactions, while enhancing customer perception and retention (Tsai and Huang, 2002; Bitner 1992; Baker et al, 2002).

Ambience factors in virtual or on line physical environment refers to the whole atmospherics of the website, such as music (Milliman, 1982) and color (Bellizi et.al., 1983).

Website design quality has an important role in obtaining positive outcomes as it influences users perceptions and behaviors.(Flavian et.al., 2009).Website design

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has been studied widely from various aspects (e.g. Harris and Goode, 2002; Ranganathan and Ganapathy, 2002;Liang and Lai.2002; Wu and Wang ,2013; Wilde et.al., 2004). Various studies suggested that factors of website aesthetic appeal and design are important elements of virtual or online servicescapes (Harris and Goode, 2010; Flavian et.al, 2009; Grewal et al., 2003).

Similar to traditional or off-line store stimuli, virtual or online atmospheric cues (such as color, graphics, layout, and design) can provide information regarding the firm or organization and influencing user responses during the visit to the website (Chang and Chen, 2008).A study of Harris and Goode (2010) found that e-servicescape that consist of aesthetic appeal, layout and functionality and financial security influence trust in the website and lead to purchase intentions.

Virtual or online atmospherics play a pivotal a role as atmospherics offline. They can have significant effects on the consumer and consumer purchase intentions. (Hunter and Mukerji, 2011). There is a positive effect of information shown on a website and emotional states felt by user in that environment (Wu and Wang, 2013).

The design of an online store plays the similar role as the layout of off-line store, and more influential (Liang and Lai, 2002).

Eroglu et al (2003) examined a model that proposes that the atmospheric cues of the online store influence shoppers' emotional and cognitive states, which lead to their shopping outcomes. Research revealed that   site atmospherics had an effect on shopper attitudes, satisfaction, and various approach/avoidance behaviors as a result of the emotions experienced during the shopping episode.

Design factors measure the overall organization of the website, i.e. pictures, font size, layout (Lee and Jeong, 2012). Wu and Wang (2014) found that the layout design had significant effect on emotional arousal and attitude toward the website , and lead to purchase intention. Based on S-O-R framework and studies of Donovan and Rossiter (1982) and Donovan et al (1994), it is proposed that:

Based on a review of the atmospheric literature, the following hypotheses were proposed:

P1:   Website or online ambient   factors will have a positive effect on customer positive emotion

P2:   Website or online design factors will have a positive effect on customer positive emotion

Website or online social environments and customer emotion

Research found that both Social and physical environments have positive effect on customer emotion and satisfaction that lead to behavioral intentions (Sheng

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et al, 2011). Manganari et al. (2008) propose a conceptual framework for studying online store environments atmosphere on consumer behavior. They proposed four dimensions of online store environment i.e. virtual layout and design, virtual atmospherics (such as color, background music, fonts); virtual theatrics (animation, images, vividness, interactivity); virtual social presence (web counter, comments from other visitors, crowding).

In off line context, research found that both Social and physical environments have positive effect on customer emotion and satisfaction that lead to behavioral intentions (Sheng et al, 2011). Service employees' expression of emotions can result in customers' emotional state (Pugh, 2001; Tsai and Huang, 2002).

Positive customer to customer interaction can create a share of experience , enhancing enjoyment of the service. If there is a similarity or comparability between customer and fellow or other customers' behavior, more positive emotion will be encouraged.

The customer's experience is impacted by the social environment. (Baker et al., 2002).There are often multiple customers in a store simultaneously and the experience of each customer can impact that of others. Therefore, one element of the customer experience which is important to consider is the social environment.

Virtual or online social factors environment can be identified as customer-to customer i.e social presence as well as business to customer perspective such as online help desk that can influence consumers' virtual experiences (Lee and Jeong, 2012).

The physical presence of and interaction with other consumers is not directly applicable online, it is indirectly indicated through the web counter and visitors' comments (Eroglu et al., 2001). Thus, the social presence component consists of the web counter, the comments from visitors and crowding.

Hence we propose the proposition:

P3:   Website social factors will   influence   university's website user emotion

Customer emotion and behavioral intentions

The influence of physical environment and customers' emotions and behaviors, has been documented in previous studies (Donovan and Rossiter, 1982).

Based on the authors, pleasure is considered as an important driver of approach/avoidance behavior in off-line or traditional stores. In online or virtual environment context, customers' or users emotions of pleasure and arousal can explain how customers psychologically attached to a website. (Lee and Jeong, 2012).

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Eroglu et al. (2001) developed a conceptual framework that describes the function of various site stimuli in the internet shopping environment.
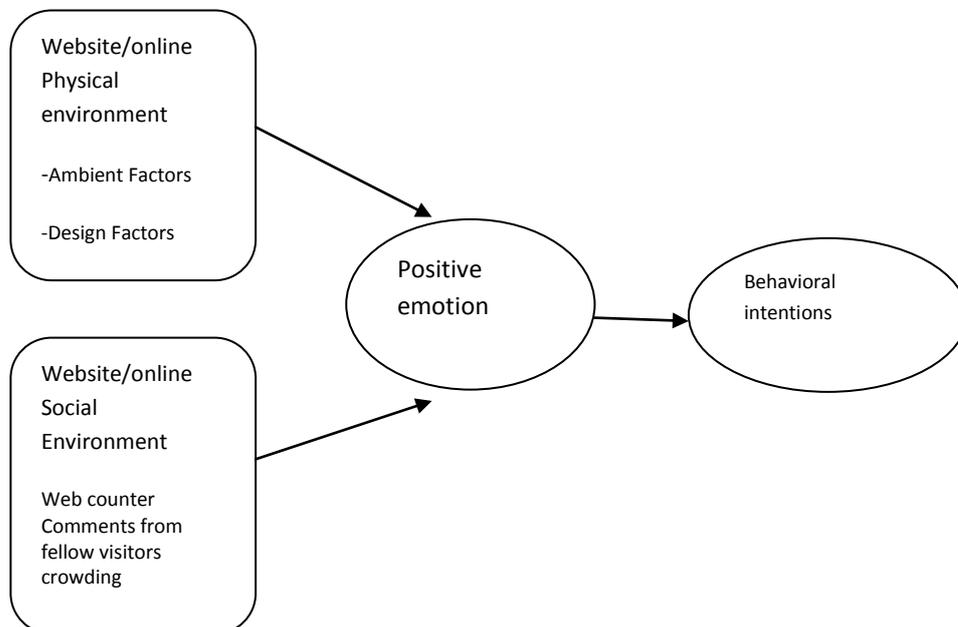
Based on the model, website stimuli such i.e. Colors, background patterns, icons, decorative images, and font styles are classified as low task relevant cue. These cues can affect consumer emotions that lead to consumers' behavioral responses (Eroglu et al., 2001).

Based on the S-O-R paradigm (Mehrabian and Russell, 1974), environmental stimuli such as color and music influence consumer emotions (e.g. pleasure and arousal) that function as mediating variables in determining various consumer behaviors (e.g. purchase intention and approach behavior). Approach behaviors refer to positive actions directed toward a certain store or web site i.e. desire to shop or explore in the web site or the likeability of the web site (Eroglu et al., 2001). Applying the S-O-R paradigm, previous studies found that pleasure and arousal stimulated by store and web site atmospheric cues can influence consumers' purchase intention (Wu et al., 2014; Babin and Babin, 2001; Wu et al., 2008) and approach behaviors (Babin et al., 2003; Eroglu et al., 2003; Hu and Jasper, 2006; Wu et al., 2008). Pleasurable site designs attract customers, influence satisfaction with online shopping (Davis et al., 2008), and consequently increase intention to explore and revisit the web site (Eroglu et al., 2003).

Thus we propose:

P4. **University's website user positive emotion is positively related to behavioral intentions**

Figure 1: Conceptual framework

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CONCLUSIONS AND IMPLICATION

The trend to use websites for various purposes has increased in various fields including educational institutions i.e. universities.However, organizations seeking to obtain benefits from their websites need to create and maintain websites that create and enhance users' pleasure feelings and arousal and support or facilitate users interaction and communication with the organization .

Many studies focuses on the importance of physical and social environments in traditional or off-line settings. It is becoming apparent that atmospherics also play an important role in virtual environment

Limitations and future research

The theoretical foundation of this conceptual framework was based on studies of offline physical and social environments. Empirical research is needed to develop and examine alternative conceptualization as well as measurements of virtual or online physical and social environments of in university's website settings.

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