Abstract—E-tailing websites are often perceived to be static, impersonal and distant. However, with the movement of the World Wide Web to Web 2.0 in recent years, these online websites have been found to display personalities akin to ‘humanistic’ qualities and project impressions much like its retailing counterpart i.e. salespeople. This paper examines the personality of e-tailing websites and their impact on consumers’ initial trust towards the sites. A total of 239 Internet users participated in this field experiment study which utilized 6 online book retailers’ websites that the participants had not previously visited before. Analysis revealed that out of four website personalities (sincerity, competence, excitement and sophistication) only sincerity and competence are able to exert an influence in building consumers’ trust upon their first visit to the website. The implications of the findings are further elaborated in this paper.

Keywords—e-commerce, e-tailing, initial trust, online trust, partial least squares, website personality.

I. INTRODUCTION

Consumers generally stick to a website when they have established a connection or trust towards the website. Gefen, Karahanna, and Straub [1] asserted that consumers are more likely to shop at stores that they trust than with those that do not earn their trust. Since consumers return and purchase from the sites that they have an affinity with, it would make perfect sense for online retailers to capture consumers from early on; that is upon the consumers’ first encounter of the website, and convert them into loyal patrons. Nevertheless, capturing consumers at their initial encounters is not an easy feat to achieve. In contrast to offline consumers, online consumers are laden with far greater number of website choices to shop from compared to the available number of traditional stores near their physical location [2]. In order to stand out from the rest of the competition, e-tailing websites need to convey a favourable impression upon a consumer’s first visit to the site. Hackbart [2] contended that online consumers typically stick with websites they initially try or if they find a website that projects a very favourable impression. Subsequently, this first impression plays a primary factor in the visitor’s initial perceptions of trust towards the website [3], [4]. In turn, these judgments of trustworthiness would then be a crucial determinant as to whether or not the visitor further patronizes the site.

A. Research Focus and Objective

The focus of this research is on initial trust, that is, trust in an unfamiliar online retailer’s website, one with whom the consumer has no prior experience with, visits and explores for the first time. At this juncture, consumers are still unfamiliar with the online retailer and thus, their perceptions of uncertainty and risk towards the retailer are understandably high. Thus, online retailers need to ensure that sufficient trust is generated within the consumers at this stage in order to quell consumers’ fears of risks and persuade them to make purchases [5].

In this initial stage, consumers rely heavily on attributes or whatever information they have about the website such as site appearance or vendor reputation, to make trust-related inferences about the online retailer [6]. Many studies [7], [8], [9], [10], [11], [12] have continuously noted the importance of interface design aspects being a crucial factor that decides whether a consumer trusts a website or not. However in this era of Web 2.0 technology that permits websites to be more immersive, interactive and dynamic, the definition of website characteristics should look beyond the usual interface design elements and incorporate personality features as well. This study postulates that websites espouse ‘humanistic’ qualities and are able to project impressions much like their offline retailing counterpart i.e. salespeople.

To date, not much research has dealt with the first impression that an e-tailing website projects and its impact on consumers’ trust towards the website particularly so at the initial point of encounter. First impressions conveyed through a website’s characteristics consisting of personality attributes are believed to be capable of inspiring trust in consumers [13]. However, that connection has not been demonstrated empirically. Therefore, this paper intends to supply the necessary explanation and empirical evidence on that alleged relationship.

Jasmine Yeap Ai Leen, T. Ramayah, and Azizah Omar
II. LITERATURE REVIEW

A. Website Personality

A general misconception exists that personality can only apply to human beings. Defined as the "unique, dynamic organization of characteristics of a particular person, physical and psychological, which influence behavior and responses to the social and physical environment" [14, p.5], personality characteristics have been famously used by psychologists in their research on consumer behavior. Recently, studies on personality issues took an interesting turn as researchers examined the subject in the online environment. There are mainly two popular standpoints of research on personality and the Internet. The first is to investigate the impact of human personalities or traits on the user’s attitude and behavior (e.g. usage) towards the technology-in-question, while the second involves the influence that brand personalities have on consumers’ online behavior. The former was attempted by researchers like Atkinson and Kydd [15] who found that the individual characteristic of playfulness influences the use of the World Wide Web while the latter was accomplished by Okazaki [16] who identified the brand personality dimensions that American multinationals (MNCs) intend to drive into the minds of online consumers. However, more researchers are currently exploring the possibilities of conveying personalities to online brands and websites. Park et al. [17] for one, constructed target e-brand personalities for online services by using visual attributes. Chen and Rodgers [18] on the other hand, developed and validated an instrument to measure website personality.

The assignment of personalities to websites presents a particularly intriguing case as websites have the potential to develop relationships with customers through its dialogue, interactivity and customized content [19], [20], [21], [22]. Just as how the personality of a salesperson can affect the customer-business relationship and sales performance [23], the personality or attributes of a website can also play a vital role in the online customer-business relationship and online sales effectiveness. It is argued that websites share human and brand characteristics and subsequently have “personalities” that both attract and detract Internet users. Nevertheless, websites also have characteristics not present in brands or humans that are unique to web technology such as the interface and system design of the site [18]. Thus in this manner, website personality is described as the set of traits encompassing human characteristics and information technology features associated with a website [18]. The conceptualization of website personality would capture the rational aspects related to website behavior such as the site’s ease of use and usefulness [24] as well as the emotional facets linked to human and brand characteristics such as entertainment, humour (e.g. [25], [26]).

Schmitt [27] suggested that the key to detecting a site’s personality is found in its visual environment and stimuli which forms the overall style of the site. An effective visual style can exert a strong stimulus on a user’s perceptions, enhancing the user’s memory and recall mechanisms of the website [28] and thereby differentiating it from its other sites. Companies like L.L. Bean, have established an online presence that is distinct from competitors through its “folksy” website personality [29]. In their study, Chen and Rodgers [18] have identified that websites can be intelligent, fun, organized, candid and sincere. Okazaki [16], who utilized Aaker’s [30] Big Five personality dimensions, claims that online brands can project excitement, sophistication and competence whereas Park et al. [17] contended that online brands can be bold, analytical, friendly and sophisticated.

B. Initial Trust towards Website

Initial trust towards the website covers the period during which a consumer visits and explores a vendor’s website for the first time [5]. Hence, McKnight et al. [5] defined initial trust as trust in an unfamiliar web vendor, one with whom the consumer has no prior experience with. Instead of the reliance on experience or firsthand knowledge of the other party, initial trust is based on an individual’s disposition to trust or on institutional cues that enable one person to trust another [6]. In their study on initial trust formation in a relationship involving two organizational parties, McKnight et al. [6] asserted the most critical time frame for organizational participants to develop trust is at the beginning of their relationship.

Kim and Prabhakar [31] who examined the role of trust in consumers’ first adoption of Internet banking, reported that consumers’ initial trust in the e-banking service is necessary for adopting the service and that this initial trust is based on trust for the “e-channel”, the electronic channel through which service transactions are conducted (i.e. the Internet) [32]. During this initial time frame, users’ perceptions of uncertainty and risk about the vendor are particularly prominent as they are unfamiliar with the vendor. However, whatever judgments made about the vendor by these potential online consumers could determine whether or not they will use the site in future. Therefore, it is particularly critical that web vendors engender sufficient trust at this stage to overcome consumers’ perceptions of risk and to persuade consumers to transact with them.

In the context of e-commerce, the trustor (online consumer) usually gains credible and meaningful information about an unfamiliar web vendor after he/she has engaged in some form of trust-related tasks such as purchasing and has had the opportunity to assess the trustworthiness of the vendor by observing the consequences of those behaviors. However, at the initial stage, consumers rely on signals or symbols or whatever information they have [33], [34], such as site appearance or vendor reputation to make trust-related inferences about the vendor [6]. With no prior relationship with the company, online consumers’ initial impressions will largely depend on the perceptions of the website’s design and personality features developed through their preliminary (first-time) browsing of the website.
III. RESEARCH MODEL AND HYPOTHESES

Essentially, the role of an e-tailing website is somewhat similar to an agent’s, company representative’s or more commonly referred to as salesperson. Smith [23] noted that the personality of a salesperson can affect customer-business relationship and sales effectiveness. By analogy, the personality (i.e. attributes) of a website could also influence the online customer-business relationship, online sales effectiveness (for e-commerce sites) and repeated or continual usage of the sites (for non e-commerce sites). For this to happen, consumers have to develop a sense of trust towards the website at the first point of contact which can propel them to act in favour of the company/service provider (e.g. purchasing, continuous browsing, spreading good word-of-mouth). Thus, it is important that the personality attributes be good characteristics that can cultivate a first time visitor’s trust towards the website.

An air of sincerity eliminates feelings of hostility. The more consumers perceive that an e-tailing website is welcoming and accessible, the more they are spurred on to browse the site without any feelings of inhibition. This can promote the formation of initial trust towards the website for web users upon their first encounter to the website, giving reason to believe that:

\[ H1: \text{An e-tailing website which exudes sincerity has a positive effect on consumers’ initial trust towards the website.} \]

E-tailing websites that emit excitement send out signals to consumers that the firm behind the website is not afraid to be different, to stand out from the crowd, to take risks and to appear unconventional. Psychologically, exposure to websites with an exciting personality can be an exhilarating experience that stimulates the consumers’ senses. Without the agony that can be felt upon surfing flat, dull and boring websites, consumers’ are more open to trust the website. Therefore, it is hypothesized that:

\[ H2: \text{An e-tailing website which exudes excitement has a positive effect on consumers’ initial trust towards the website.} \]

Consumers who encounter e-tailing websites which are competent in nature expect that these websites can be depended upon to supply the necessary and complete information, perform transactions correctly, have navigational links that worked etc. Apart from that, security marks that are prevalent in the website ensure consumers of the website’s reliability and that it is not a fly-by-night operator [13]. In short, competent websites exude strength of efficiency that instills feelings of assurance among the consumers when they first surf the sites. The consumers will form the opinion that they can trust and rely on the website, thereby prompting the assertion that:

\[ H3: \text{An e-tailing website which exudes competence has a positive effect on consumers’ initial trust towards the website.} \]

Sophisticated e-tailing websites with luxurious appeals, exquisite designs and elaborate details signify that care has been taken in the construction of the sites to achieve a polished, refined aura. People are drawn to beauty and tend to be less critical to entities displaying marks of loveliness. Attraction to elegant personas portrayed through an e-tailing website is the perfect prologue for the attainment of consumers’ initial trust in the site. For this, the conjecture is such that:

\[ H4: \text{An e-tailing website which exudes sophistication has a positive effect on consumers’ initial trust towards the website.} \]

IV. METHODOLOGY

A. Subjects and Data Collection Method

A total of 239 undergraduate students in a university located in the Northern region of Malaysia participated in this field experiment which involved the participants rating real world online book retailing websites that they were assigned to. Six online book retailing websites with diverse design aspects and appearance were selected for purpose of this study namely Barnes and Noble, Alibris, Biggerbooks, English Bookworld, Abebooks and Bananafish Books.

On the website that they were assigned to, participants were given a scenario asking them to assume that they have a limited budget of USD 50 to purchase a book from the website, browse the website for a book that they would like to purchase and then rate the website based on a list of personality attributes. The task of browsing for a book in the assigned website was necessary so that the participants developed a feel for the website that would then enable them to assess the website’s personality more effectively. The data collection took place over a course of two weeks in several computer lab sessions designated for this experimental study.

The use of undergraduate students as subjects is justified as they are commonly regarded as innovative users of websites and early adopters of online retailing [35] who possess ample skills and extensive knowledge of using the Internet. In addition to being computer literate and having sufficient web technology exposure, these group of people also have access to a computer with Internet connection (be it using their own notebooks of school computer labs) and are constantly online surfing the Internet. This is confirmed by the participants’ profile whereby most of them revealed that they are heavy users of the Internet, spending around 2 to 3 hours on the Internet on an average day (37.2%) and also more than 3 hours (26.4%), logging in the Internet at least once a day (35.7%) to several times a day (36.0%). Having used the Internet for more than 3 years already (73.2%), most of them regard themselves as intermediate users in web technology (37.7%). Approximately 32.6% of the respondents have made online purchases over the past one year. The average age of the participants is 20.91 years, with a majority of them being females (73.2%).
B. Measures

The questionnaire items used to measure website personality were adopted from the list of personality attributes presented in Aaker’s [30] study. There were 5 items capturing each personality dimension measured on a 7-point Likert scale of 1=strongly disagree to 7=strongly agree. As for initial trust towards website, the five items used were adopted from Bart et al. (2005) and were anchored a 7-point Likert scale of 1=strongly disagree to 7=strongly agree.

V. RESULTS

Partial least squares (PLS) was used to test the hypotheses of the research model. The analysis was conducted using SmartPLS 2.0 software [36]. PLS has the advantages of a structural equation modeling tool which can assess the psychometric properties of the measurement model and estimate the parameters of the structural model [37]. While covariance-based structural equation models attempt to reproduce the observed covariance matrix using a maximum-likelihood function, PLS recognizes the latent variable as weighted sums of their respective indicators [38], [39] and attempts to predict values for the latent variables (component scores) using multiple regressions [38], [39], [40], [41].

A. Measurement Model

The measurement model consists of relationships among the conceptual factors (latent variables/constructs) of interests and the measures (indicators) underlying each construct. Assessment of the measurement model concerns establishing construct validity, which means the extent to which the indicators reflect their underlying constructs. In order to establish construct validity, the measurement items in the model need to demonstrate both convergent and discriminant validity.

Table 1 lists the item loadings, reliabilities and average variance extracted (AVE) for the all the items/constructs listed in the model. All items loaded highly on their respective constructs from a lower bound of 0.748 to an upper bound of 0.921. In terms of reliability, the composite reliabilities of the latent variables range from 0.892 to 0.946, while the Cronbach Alpha values for the variables range between 0.849 to 0.928. Both composite reliability and Cronbach Alpha values exceed the threshold value of 0.70 recommended by Nunnally [42]. The average variance extracted (AVE) for each measure exceeded the recommended value of 0.50 suggested by Fornell and Larcker [43]. In short, the values discussed above provide evidence that convergent validity was achieved, indicating that the measures used were robust.

Table 2 shows the results of testing discriminant validity of the variables. The elements in the matrix diagonals, representing the square roots of the AVEs, are greater than the off-diagonal elements in their corresponding row and column, indicating that discriminant validity of the scales has been achieved.

A. Structural Model

The structural model comprises of the hypothesized relationship between exogenous and endogenous variables in the model. It provides information as to how well the theoretical model predicts the hypothesized paths. Bootstrapping was applied to obtain the path coefficients and their corresponding t-values which then enables inferences to be made by determining the statistical significance of each path coefficient. Accordingly, a bootstrapping procedure featuring 1000 samples was applied to acquire more stable results. Figure 1 shows all path coefficients and their corresponding t-values (written inside the parentheses). It can be seen from this figure that out of four path coefficients, only two are significant at p< 0.001, thereby providing support for
H1 and H3. In short, only sincerity (β=0.473) and competence (β=0.374) have an impact on initial trust towards website.

The explanatory power of the estimated model can be assessed by observing the $R^2$ of the endogenous constructs. Figure 1 also shows the $R^2$ value for the endogenous construct of this study, i.e. initial trust towards website. Falk and Miller [44] recommended that $R^2$ must be at least 0.10 in order for the latent construct to be deemed adequate. The analysis revealed that 66 percent of variance in initial trust towards website can be explained by the model ($R^2 = 0.656$), satisfying the criteria suggested by Falk and Miller [44].

![Fig. 1 Structural model](image)

**VI. DISCUSSION AND CONCLUSION**

The focus of this study was to examine the impact of website personality on consumers’ initial trust towards online book retailing sites. The impact of four types of personalities, namely sincerity, excitement, competence and sophistication, on consumers’ initial trust was assessed. The results obtained from the analysis revealed that out of the four distinct personalities, only sincerity and competence are influential in determining whether a consumer trusts an online retailer upon his/her first visit to the retailer’s website.

Basically the context of study for this research revolves around e-commerce sites. In websites that involve transactions, it is all the more important for (some degree of) trust to be established before the user intends to make any purchases. Researchers have incessantly stressed on the importance of trust as a prerequisite for any successful relationship or transaction to take place (e.g. [45], [46], [47], [48]). When browsing through online retailing sites, especially e-commerce ones, users want to be assured that the websites that they are transacting with are not out to cheat them but genuinely have their best interests at heart and are capable of processing their requests/ transactions quickly and efficiently. This is why consumers identify with personality facets that reflect sincerity (e.g. friendly, cheerful, honest, original, real) as well as competence (e.g. confident, intelligent, reliable, secure and technical). Personality facets such as these are not limited to only humans (salespeople). As can be seen from the results of the analysis, consumers are able to ascribe these personality facets to non-humans and objects like websites.

Although the results of this study show that excitement and sophistication are not significant determinants of a consumers’ initial trust, they are not to say any less negligible. Both excitement and sophistication are important in attracting users and spurring their interest to browse the site but it is insufficient to inspire the formation of trust within consumers. Focusing too much on making a website look cool, trendy sophisticated or good looking may be all well for the purpose of entertaining the consumers or providing them with enjoyment in browsing the websites, but as long as the consumer feels skeptical about a particular website, the chances of them transacting with the website will be slimmer.

Hence, when designing commercial websites, online retailers have to be mindful that in order to get the users to purchase from their sites, they need to first earn the consumers’ trust. Matters pertaining to the exchange of sensitive and personal information such as credit card details require websites to be designed in such a way that will not give users a reason to doubt the credibility of the retailer. To display a sincere and competent personality, elements that can foster trust within consumers such as the retailers’ track record, customer testimonials, professional company logo, reliable navigation, privacy and security assurances must never be forgone as consumers base their judgments of trustworthiness on these elements.

Thus far, this study has only taken into account four personality dimensions adopted from Aaker (1997). Understandably, there could be other personality dimensions proposed by various researchers that are yet to be tested empirically in the context of websites. As an extension of this research, perhaps future studies can explore a wider list of website personalities and their impact on consumers’ initial trust. In addition, future endeavours can expand their context of study to include non-commercial websites. On that note, researchers can also determine what type of website personalities are best suited for which type of websites.

**REFERENCES**


