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RESEARCH PAPER

Effects of user's primary need on relationship between e-loyalty and its antecedents

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Abstract Many people now use websites as their sole source of news and information, and more and more people use the Web to search for and buy products and services. Loyal users are equally important for all types of websites, but at times the studies have acknowledged that depending on the website characteristics users' loyalty perception differs i.e. relationships between e-loyalty and its antecedents vary across websites. Despite these acknowledgements, very limited study, if any, has done the comparative analysis of the relative importance of e-loyalty antecedents across different website categories. This study aims to examine the e-loyalty and its antecedent's relationship across three different categories of websites, namely product website, service website and social networking website. Website categorisation is done on the basis of users' primary need. The study helps to determine what antecedent should be given closer attention for enhancing loyalty in the respective category. The findings suggest that e-service quality, perceived value, e-trust, e-satisfaction, number of members and number of peers, contributes to generate e-loyalty but with varied significance for different websites. Perceived value, e-service quality and number of peers are the most significant contributor of e-loyalty for product website, service website and social networking website, respectively. Structural equation modelling (SEM) analysis is used for performing empirical analysis using AMOS 20.

Keywords E-loyalty · E-service quality · Perceived value · E-trust · E-satisfaction

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Introduction

The advent of Internet and growth of World Wide Web fuelled by the rapid growth of e-commerce resulted in a significant increase in number of websites over last few years. As observed by Li et al. (2006, p. 105) "many people now use websites as their sole source of news and information, and more and more people use the Web to search for and buy products and services". The increase in number of websites is largely seen because more and more organisations are using the Internet as a business channel (Turban et al. 2002). Internet is a preferred channel because of certain advantages over traditional brick-and-mortar stores—greater flexibility, deeper market penetration, lower cost, speedy transactions, wider product range, greater customization and convenience (Srinivasan et al. 2002). These advantages have come up with certain challenges. The Internet is close to a perfect market

due to instant information availability (Kuttner 1998) that made products/services search and comparison relatively easier and less costly (Rafiq et al. 2013). Such easy alternative offerings and instant information availability lead to fierce price competition and vanishing brand loyalty (Kuttner 1998). In such competitive environment, to achieve success, two important goals for websites are customer acquisition and customer retention. In fact, customer retention is important than acquisition as it is a widely accepted fact that the cost of acquiring a new customer is more as compared to maintain an existing one (Oliver 1999; Reichheld and Schefter 2000, 2004; Olson and Boyer 2005) and customer loyalty is one of the important tools to achieve it (Reinartz and Kumar 2003). Moreover, in online business, initial transactions with newly acquired e-customers are less profitable than transaction with existing ones due to high acquisition cost of new e-customers (Carter et al. 2014), and may lead to unprofitable relationship for up to three years (Reichheld and Schefter 2000). E-loyalty positively affects the long-term profitability and is vital for companies providing online products/services (Ribbink et al. 2004). Creating a loyal customer base is one of the most reliable success strategies for websites. Thus, loyalty over the Web has come into sharper focus and remains a central theme of research in the academic community (Toufaily et al. 2013).

Several studies have been done on loyalty for different kind of websites. A website can be broadly classified as product website (providing tangible products) or service website (providing intangible services). At times, the studies have approved that differences in the nature of products and services affect loyalty perception of a user. In other words, the relationships between e-loyalty and its antecedents vary across websites. For example, Torres and Martins (2004) differentiated between Internet information search experiences and product purchase experiences. Their findings suggested that these different consumer experiences have varied effects on consumer e-satisfaction. Harris and Goode (2004) differentiated between online books purchasing and online flight purchasing and concluded that the relative importance of e-loyalty constructs varies under these two scenarios. Semeijn et al. (2005) also recognised the importance of differences in tangible and intangible aspects of product/service and their effect on e-loyalty. Despite these acknowledgments comparison of the relative importance of e-loyalty antecedents across the different website is seldom done. Thus, this study aims to examine the e-loyalty and its antecedent's relationship across three different categories of websites, namely product website, service website and social networking website. It helps to determine what antecedents should be given closer attention for enhancing loyalty.

The present study contributes to both theory and practice in many ways. Theoretically, this study provides a conceptual model of e-loyalty. Then this study sheds light on the under-explored area of effects of product/service attribute or website type on e-loyalty and helps to explain the variation in relationships between e-loyalty and its antecedents. Simultaneous examination and comparison of the relative importance of key antecedents of loyalty across three different categories of websites is done. Very limited study, if any, has done such kind of empirical analysis. Another differentiating aspect of our research is that responses are obtained from the same individuals. Sánchez-Franco et al. (2014) noted that individuals react differently to the online environment, depending on their personal characteristics. To avoid personality conflicts, responses for three websites are obtained from the same user rather than different ones for analysing the relative importance of e-loyalty antecedents. Furthermore, social factors have not been given much importance in existing studies, especially in case of product websites and service websites, but with growing number of virtual communities, chat rooms, blogs and reviews some studies have recognised the importance of such factors in creating e-loyalty (e.g. Christodoulides and Michaelidou 2010; Toufaily et al. 2013). Hence, this study differs from others in this aspect also i.e. two social factors (numbers of members and numbers of peers) are included and examined in the proposed e-loyalty model. Managerially the study assists websites service providers and managers (a) to appreciate the importance of users' need-based website category, and (b) what antecedents should be given closer attention in respective website category to improve website loyalty.

This article is structured in the following way. A background about research problem is given, followed by a brief discussion about e-loyalty. Then the pertinent literature on e-loyalty concerned with the present study is discussed. The rationale for website

categorisation and the relation between user primary need and website is discussed. Next, we present the research model. Subsequently, we describe the research methodology adopted. Thereafter, discussion on results is presented. Finally, to conclude the study, implications, limitations and future research directions are provided.

E-loyalty/website loyalty

E-loyalty can be seen as an extension of traditional brand loyalty (Gommans et al. 2001; Luarn and Lin 2003). Currently, the notion of brand loyalty includes online loyalty also known as e-loyalty or website loyalty (Valvi and Fragkos 2012). This study deals with loyalty to a website in B2C context. Here the term website means "the underlying Internet technology, the interactive user experience with the website, and/or the people behind the website" (Corritore et al. 2003, p. 740).

Some studies focused on behavioural dimension (repeat visit, reorder or repurchase) of e-loyalty (Gefen 2002; Luarn and Lin 2003; Cyr et al. 2008), while some focused on attitudinal dimension (psychological attachment) accompanied by behavioural dimension (Anderson and Srinivasan 2003; Toufaily et al. 2013). General belief is that behaviour of an individual alone is not able to explain various buying circumstances as there are personal motivations that influence the consumer to buy the same brand and, therefore, behavioural loyalty must be accompanied by attitudinal loyalty to explain various buying circumstances. Hence, it is appropriate to say that loyalty is a combination of attitudinal and behavioural preferences and many studies have applied this definition in their research (Gommans et al. 2001; Anderson and Srinivasan 2003; Semeijn et al. 2005; Gummerus et al. 2004).

Other than attitudinal and behavioural dimension, another important aspect to consider is repurchases and revisits. Does loyalty necessarily involve repeat purchases or a user with repeated visits can be considered as loyal consumer? Previously many studies on e-loyalty have been done in purchase centric environment thus the definitions are purchase centric. For example, e-loyalty is "customer's favourable attitude towards the e-retailer that results in repeat buying behaviour" (Srinivasan et al. 2002, p. 42). E-loyalty, as described by Flavian et al. (2006), is a consumer intention to buy from a website and will seldom consider switching to another one. According to these definitions, e-loyalty includes favourable attitude and repeat purchase behaviour. However, with the increasing number of content-based or information-based website, e-loyalty does not necessarily implies favourable attitude and repeat 'purchase' behaviour, but favourable attitude and repeat 'browsing' behaviour also leads to e-loyalty (Chiu et al. 2009). Even this is applicable in a purchase centric environment as every single visit of a user may not lead to a purchase. Some initial visits may be directed to information accumulation about a product/service and eventually ends up in a purchase. Gupta and Kabadayi (2010) in context of online CD purchase defined website loyalty as (p. 169) "deeply held commitment to revisit the website consistently and desire to stay more at the website for each visit, thereby causing sticky and repetitive visit". Tarafdar and Zhang (2008) have done an empirical study on website loyalty. They included 190 websites in their study from all categories—portals and search engines, retail, entertainment, news and information and financial services. The authors contended that website loyalty is defined as the likelihood of repetitive visits by the same individual and (p. 17) "the likelihood of return can be measured by measuring the number of repeat visits that a customer makes to the website". Thus, it can be argued that a user with repeated visits and favourable attitude can be considered as loyal user/consumer. In the present study, e-loyalty is defined as revisits/repurchases by a user and a well-built feeling of faithfulness towards a website. E-loyalty is measured by research questions: "I prefer this website", "I will use the same website again" and "I recommend this website to others". Users having at least five visits per month for service website and social networking website and at least two visits per month to product website are considered in this study. The frequency for product website is kept low because it necessarily involves a financial transaction.

Theoretical background

Generating loyal consumers is equally important for all types of websites. In e-retailing context, Srinivasan et al. (2002) noted, to gain benefits of its loyal

customer, an online retailer needs to develop a thorough understanding of determinants of e-loyalty. Such an in-depth understanding of e-loyalty antecedents can give a competitive advantage to e-retailer and help them in devising strategies to increase their loyal customer base. In context of content-based Web services, Gummerus et al. (2004) observed that creating and maintaining loyal customer base is vital as these companies get a substantial portion of their income from third parties, such as partners and advertisers.

Although loyalty is important for all types of website but at times the studies have acknowledged that depending on the website characteristics consumers' loyalty perception differs i.e. relationships between e-loyalty and its antecedents vary across websites. Some have differentiated between the websites selling products/services and content-based websites, while some on the basis of the tangibility-intangibility aspect of products and services. Gummerus et al. (2004) observed the difference between online retail websites and content-based website and noted (p. 175) "since the service offering and consequently also customer evaluations of content-based service provider's website differ substantially from those of web merchants, specific research is needed". Torres and Martins (2004) tests an e-satisfaction model aiming to identify the perceptual dimensions of consumer's satisfaction with Internet information search (service-based) and purchase experiences (product-based). Chiu et al. (2009) stated that information-based website and product-based website differ from one another because the browsing behaviour for content-based website is different from traditional purchasing behaviour. Sousa and Voss (2012) analysed the impact of e-service quality on customer behaviour in e-services. They acknowledged that customer behaviour for a service provider may differ for an online product purchase in comparison to availing a service from a pure information-based e-service provider. Due to this difference they restricted their domain to pure information service i.e. e-banking.

In an online environment, physical fulfilment also plays an important role and affects satisfaction and loyalty (Zeithaml et al. 2000; Wolfinbarger and Gilly 2003; Semeijn et al. 2005). There are many situations where transactions/services are initiated online and completed online. In such situations, offline fulfilment is recognised as an important antecedent of loyalty (Semeijn et al. 2005; Wolfinbarger and Gilly 2003; Zeithaml et al. 2000). The experience of actually receiving the ordered product is likely to induce feelings of joy and pleasure (Semeijn et al. 2005). Thus, the difference in loyalty behaviour of the consumer is expected, unlike the scenarios where the transaction is initiated online and completed online.

Furthermore, tangibility-intangibility aspects or physical attributes also affect the consumer loyalty perception. According to Sousa and Voss (2012), unlike intangible services, sale of physical products introduce a number of confounding factors like product pricing, transportation and physical characteristics of the product. Kassim and Abdullah (2008) noted that physical goods and service are conceptualized to fall on continuum ranging from tangible to intangible, and consumer evaluates a product depending on the extent of tangibility and intangibility (Rushton and Carson 1989). An exhaustive meta-analysis is done by Toufaily et al. (2013) on e-loyalty and explains that the literature on e-loyalty ignores some variables related to the characteristics of product/service offered. Thus, the types of product, the tangibility/intangibility feature are interesting variables that future research on e-loyalty should examine. Tarafdar and Zhang (2008) identified seven factors for website loyalty and noted that each factor; however, is not equally important for website performance in different domains, and some factors are more important than others.

Keeping in view the above discussion, our main objective is to examine the variation in the relationship between e-loyalty and its antecedent for different categories of websites, but differentiating the websites on product/service basis is cumbersome. The reasons being, on the Web (a) products and services are often bundled together and are generally inseparable, and (b) they lie on a continuum ranging from tangibility to intangibility (Kassim and Abdullah 2008). In order to achieve our main objective, we have categorised the websites on the users' primary need basis. In the following section, we will discuss the justification and rationale for this approach.

User need/motive-based website categorisation

On examining the existing literature, we observed that studies indicated that relative importance of e-loyalty

antecedents varies due to differences in (i) tangibility-intangibility aspects of products and services (e.g. Kassim and Abdullah 2008; Kim et al. 2009a; Ramanathan 2010) (ii) offline fulfilment and online fulfilment (e.g. Shankar et al. 2003; Semeijn et al. 2005), and (iii) product-based website and content-based website (Gummerus et al. 2004; Chiu et al. 2009). However, these approaches are not entirely different from each other. For instance, e-mail service is an intangible service and can be seen as information-based website. A watch order includes offline fulfilment and website can be categorised as product website. Thus, differentiating websites on product/service basis is cumbersome. On the web, products and services are often bundled together and are generally inseparable. Kassim and Abdullah (2008) noted that physical goods and services are conceptualized to fall on the continuum ranging from tangible to intangible. Products and services, in terms of website, can be seen on this continuum as (see Fig. 1).

The tangibility-intangibility differentiation alone is not sufficient for website categorisation because even at the same point in the continuum loyalty perception differs since the motives of an individual to use the website are different. Even for the same individual, loyalty perception may differ. E-mail service providers and social networking websites lie on the same point in this continuum (both being intangible service and transaction are initiated online and completed online) but variation in relationship between e-loyalty and its determinants is expected under these two scenarios.

Thus, combining the above three approaches, we follow the need-based classification of websites and expect that perception towards e-loyalty antecedents varies with the varying users need. Valvi and Fragkos (2012) in purchasing environment described (p. 356) "as a consumer, you recognize that you have a need to satisfy". Every individual has a certain prime motive/need to be satisfied for which he visits a website. Gupta and Kabadayi (2010) explicitly suggest that loyalty towards a website varies for varied motives. They observed (p. 167) "motives such as goal-directed (e.g. searching for specific information) and experiential (e.g. browsing for recreation) persuade consumers to focus on completely different aspects of the website, leading to varied effects on evaluations and purchase intentions at a website". Consumers with experiential motive generally focus on interesting aspects of the environment, however, consumers with a goal-directed motive search for information to complete a task or to purchase a product. Consumers differ significantly in their shopping behaviour, which is governed by their motivations (Wolfinbarger and Gilly 2003). Kim et al. (2009b) also observed that consumers may have different needs and purchase motivations for different products. Website managers/providers need to develop strategies according to needs of various visitor segments i.e. hedonistic browsing, information searching and purchasing (Moe 2003; Sénécal et al. 2005; Toufaily et al. 2013). Segmenting users on the basis of their need to use a website, websites are categorised into four domains.

1. Category 1—website provides tangible product.
2. Category 2—website provides intangible product/service where transaction is initiated online but completed offline.
3. Category 3—website provides intangible product/service where transaction is initiated online and completed online, motive being utilitarian.
4. Category 4—website provides intangible product/service where the transaction is initiated online and completed online, the motive being hedonic.

Category 1, category 3 and category 4 websites are chosen for analysis. In this study hereon, category 1

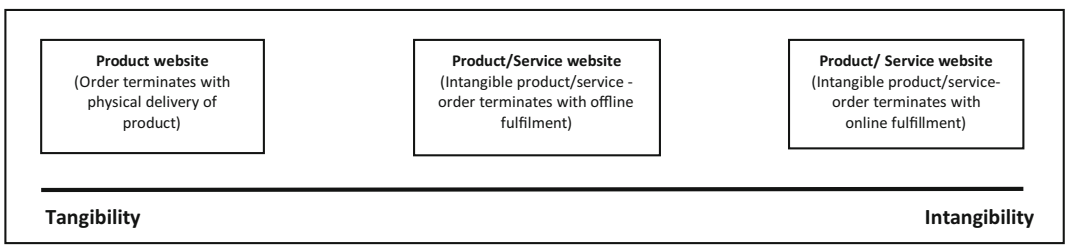

Fig. 1 Tangibility-intangibility continuum

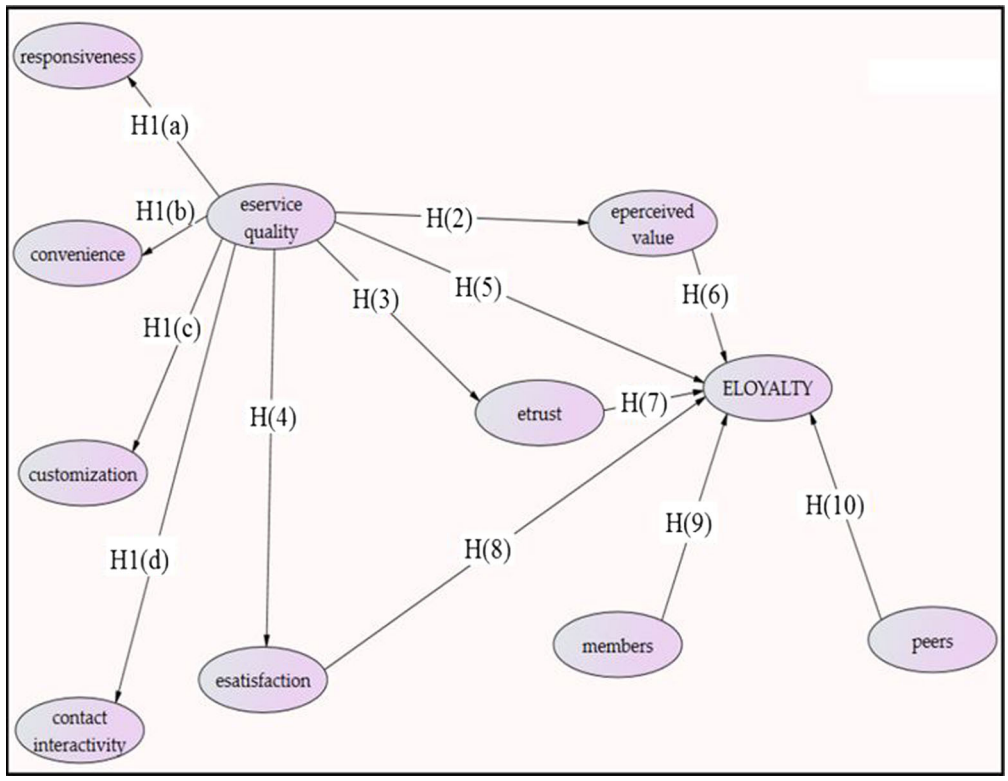

Fig. 2 Proposed e-loyalty model

website is known as product website, category 3 as service website and category 4 as the social networking website. Service website and product website are at two extremes of the tangibility-intangibility continuum, while the social networking website and service website are at the same point.

Service website category encompasses the user whose main objective is to acquire any kind of online service (intangible). Service is different from the product due to its service nature, such as intangibility, inseparability, heterogeneity and perishability (Roostika 2012). Thus, beliefs and expectation of an online user differ for a service website as compared to the product website.

Product website entertains the fact that the primary need of the user to visit a website is to buy a product. Product website encompasses many aspects different from service website (look, delivery, feel, touch and performance of the product). Product quality is treated as an important dimension of service quality (Vlachos and Vrechopoulos 2008), thus customer's expectation from a product website is different than a service website. Offline fulfilment related to the product quality also plays an important role for an individual in judging the website's quality.

A social networking site is a social network of individuals who interact through specific social media, potentially crossing geographical and political boundaries in order to pursue mutual interests or goals. Although social networking website and service website lie on same continuum, but for this study, we consider them separate website category; reason being the motive of an individual to join a social networking is different from a service website. Social, emotional and psychological needs or even sharing of reviews about a product or service may stimulate an individual to join a virtual community. Proposed e-loyalty research model is examined in each category. Following section discuss the conceptual framework and hypotheses development.

Research model

Figure 2 provides the proposed e-loyalty research model. E-service quality is the extent to which website

caters to the need of a user during the visit. Santos (2003) defined e-service quality as the customer's evaluation of entire service experience provided by online markets. Firstly, Parasuraman et al. (1988) proposed multidimensional scale to measure e-service quality in electronic context and adapted five physical service quality dimensions. Since then, many have given the determinants responsible for e-service quality based on their theoretical and empirical research (Zeithaml et al. 2002; Srinivasan et al. 2002; Wolfinbarger and Gilly 2003; Yang and Peterson 2004; Ribbink et al. 2004; Semeijn et al. 2005; Rodger et al. 2005; Chao et al. 2009; Blasco et al. 2010) yet there is no consensus on the determinants of e-service quality. Studies have established that e-service quality is not a directly measurable construct. For this study, based on existing literature four dimensions are identified, which construct e-service quality.

1. Responsiveness
2. Contact interactivity
3. Convenience
4. Customization

Responsiveness is the site's ability to answer the user queries (Cyr et al. 2009). The soon the site gives the response to the user queries, the more responsive it is. The responsive web design permits a website to get used to different screens by shuffling content and realigning itself. Answering e-mails and phone calls of the user query within a well reasonable time frame are the characteristics of a good responsive website. Not only the staff of a website should respond quickly, but more importantly the design of a website should be responsive enough to respond user demand well in time. It is crucial that users receive adequate and timely support in case of questions or problems (Sadeh et al. 2011). Quick to respond web design is becoming the standard now, certifies that the website or web page is well suited for all kinds of ever-changing queries and needs of customers. Responsiveness is an important determinant of e-service quality (Gummerus et al. 2004; Ribbink et al. 2004; Semeijn et al. 2005).

Contact interactivity can be defined as the extent to which website facilitates the two-way communication and the availability of customer support tools (Srinivasan et al. 2002). According to Anderson and Swaminathan (2011), in e-market context, interactivity is defined as the availability and effectiveness of customer support tools and two-way communication of e-business provider with its customers. It is the communication process that takes place between human and computers. The sites interact with the user usually through either a text-based or graphical user interface. The user interface should be designed in accordance with the interests of the target users because they are the ones who really interact with the website, thus a good interactive website is a part of e-service quality (Srinivasan et al. 2002; Cyr et al. 2009; Anderson and Swaminathan 2011). Previous research (Srinivasan et al. 2002; Rodger et al. 2005) indicates that contact interactivity is a key facilitator of e-service quality.

Observing the definition of ease of use, convenience and navigation efficiency, the literature reflects the same meaning. Convenience is navigation efficiency and user friendliness of a website (Chang and Chen 2008). Ease of use refers to the property of a website that a user can navigate or use the website conveniently and with ease. It is the degree to which the prospective user expects the target system to be free of effort. Srinivasan et al. (2002) suggested a website to be comfortable to use, it must be simple, intuitive and user-friendly. Many times user leaves the website without purchasing because they find it difficult to navigate through the site. The user finds it more convenient if there is uniformity in navigational method and data presentation. A convenient website saves time and makes browsing easy. It provides a short response time, facilitates fast completion of a transaction, and minimises customer effort (Schaffer 2000), assists visitors to reach the destined content quickly. Ease of use/convenience is an antecedent of e-service quality (Ribbink et al. 2004; Cyr et al. 2007; Anderson and Swaminathan 2011).

Customization is the ability of an e-retailer to tailor products, services, and environment to individual users. Customization is giving the user what he wants; it creates the perception of increased choice and can reduce the frustration of visitors (Srinivasan et al. 2002). Several websites, for example, Google, Facebook have let their homepages be customized by users and with the advent of new web technologies users are able to create, enhance and customize the interface for them. Customization will likely influence the joy experienced with e-service and is considered as one of the key benefits in e-service quality (Ribbink et al. 2004; Semeijn et al. 2005).

If a website's service quality appeals to the customer the chances of developing favourable judgments about the site are high (Pearson et al. 2012). E-service quality is considered to be an important antecedent of e-loyalty in many studies (Ribbink et al. 2004; Rodger et al. 2005; Semeijn et al. 2005, Valvi and Fragkos 2012). Thus, based on the above discussion following five hypotheses are posited.

H1 (a) Responsiveness directly and positively affects e-service quality.

H1 (b) Contact interactivity directly and positively affects e-service quality.

H1 (c) Convenience directly and positively affects e-service quality.

H1 (d) Customization directly and positively affects e-service quality.

H5 E-service quality positively and directly affects e-loyalty.

Influence of service quality has been studied for offline as well as online environments, and the outcomes of the research suggested that service quality influence perceived value in a positive manner. Parasuraman and Grewal (2000) stated that service quality is a logical conductor of perceived value. Blasco et al. (2010) concluded that improved perceived e-service quality significantly increases the perceived value in the electronic context. E-service quality strongly influences perceived value. Thus, it is hypothesized that.

H2 E-service quality positively and directly affects perceived value.

E-service quality and its underlying dimension are the important determinants of trust. Many studies (Chen 2006; Flavian et al. 2006; Chau et al. 2007) supported that ease of use plays an important role in the formation of trust. According to Koufaris and Hampton-Sosa (2004), the willingness of online organisations to customize their products and services were significant antecedents of people's initial trust in e-commerce. Roostika (2012) suggested that service quality build customers' beliefs and had a positive effect on trust. Sultan and Mooraj (2001) also highlighted the importance of service quality factors linked to trust. The consumer will develop trust with the website if it provides good quality service. Thus,

H3 E-service quality positively and directly affects e-trust.

Service quality and customer satisfaction are distinct constructs from the customers' point of view, but strong relationships exist between these two (Sureshchanndra et al. 2003). Spreng and Mackoy (1996) also concluded that better service quality leads to customer satisfaction. Ribbink et al. (2004) established that e-service quality had a positive impact on e-satisfaction. Consistent with these studies, the following hypothesis is posited.

H4 E-service quality positively and directly affects e-satisfaction.

In the past years, perceived value appealed many researchers and findings indicated that customer perceived value is critical in building and maintaining e-loyalty. Perceived value has been examined through similar concepts such as perceived usefulness, usability and benefits (Valvi and Fragkos 2012). Perceived value is the user evaluation of perceived benefits against perceived cost. It is "consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml 1988, p. 14). Perceived value is considered to be an important contributor in acquiring e-loyalty (Anderson and Srinivasan 2003; Gummerus et al. 2004; Semeijn et al. 2005; Cyr et al. 2009; Polites et al. 2012). Perceived value even carries more importance in virtual markets where the users do not have a chance for face to face interaction and not able to touch or feel the product. Thus, following hypothesis is formed.

H6 perceived value directly and positively affects e-loyalty.

Trust in e-commerce refers to the readiness to rely upon on the renowned and accepted players, organisations and systems with which the e-commerce interaction takes place. Ribbink et al. (2004) defined e-trust as the degree of confidence customers have in online exchanges, or in the online exchange channel. Trust between consumer and e-commerce retailer evolves with the acquaintance they might have about one another: their deeds, their behaviour, the technical solution they deploy, etc. "To gain the loyalty of customers, you must first gain their trust. That's always been the case, but on the web, where business is conducted at a distance and risks, and uncertainties

are magnified it is truer than ever" (Reichheld and Schefter 2000, p. 107). Why trust is so important in online transactions is well appreciated if one knows potential risks that lie in online transactions. Fraud, sharing of private data is serious issues which concern the consumer most. Trust related issues exists in online business but statistics reveals that the numbers of people doing online shopping are increasing day by day and the shackles created by "lack of trust" is no longer an obstacle to transacting online. It does not indicate that e-trust no longer plays an important role in the online transaction environment; however, it matters now more than ever, but now e-retailers are able to create a sense of e-trust among their users. A website equipped with security and privacy features is able to generate the confidence and assures the user that their data is safe with them. Studies suggested that trust positively affects online customer loyalty (Ribbink et al. 2004; Rafiq et al. 2013, Carter et al. 2014).

H7 e-trust directly and positively affects e-loyalty.

As defined by Oliver (1999, p. 34), satisfaction is "the consumer's sense that consumption provides outcomes against a standard of pleasure versus displeasure". It measures whether the offerings of an e-retailer surpasses the expectation of the online user. It is the contentment one feels when a desire, need, or expectation is fulfilled. E-satisfaction is one of the areas to be focused upon if a website manager wants customer retention, customer loyalty, and merchandise repurchase. It is imperative to closely observe the customers and encompass their needs and requirements in the business model which eventually increase their satisfaction level and helps to build a long-term relationship with the customer. A dis-satisfied consumer will definitely give a second thought to revisit the website and may search an alternative to fulfil his needs or to obtain the maximum value out of his efforts. User satisfaction is an indispensable part of a successful website. Satisfaction with electronic environments, or e-satisfaction, drives traffic to websites and persuades the user for repeated use of a site. E-satisfaction is vital to create e-loyalty as agreed by many researchers (Anderson and Srinivasan 2003; Gummerus et al. 2004; Rodger et al. 2005; Sheng and Liu 2010; Anderson and Swaminathan 2011). Therefore, it is hypothesized that e-satisfaction contributes in building e-loyalty.

H8 E-satisfaction directly and positively affects e-loyalty.

Some studies (Noble et al. 2006; Christodoulides and Michaelidou 2010; Toufaily et al. 2013) have recognised the importance of social factors in purchasing environment. Christodoulides and Michaelidou (2010 p. 191) argued "social shoppers are more satisfied with and are loyal to e-tailers who offer an integrated social experience that comprises shopping and non-shopping activities. Shopping is not always a rational process, and e-marketers will need to tap into the non-rational social side of online shopping". With the growth of social forums and virtual communities, customer integrates socially into a village and these groups (e.g. family, friends, and online forums) direct his choices in a convincing way (Toufaily et al. 2013). Lim and Dubinsky (2005) also observed that in the consumer context, shoppers' purchase decisions are likely to be influenced by friends and neighbours. Consumers prefer to rely on informal sources and other consumers in purchase decision rather than formal sources such as advertisements (Bansal and Voyer 2000; Casaló et al. 2008). Growing number of online forums and chat communities affects loyalty intentions of other users by way of electronic word of mouth, reviews and referrals. If a website deals with large number of users, interaction opportunities for an individual are more. This study examines the effect of two social factors i.e. number of members and numbers of peers on e-loyalty intentions of a user. For an individual, numbers of members are the total number of members the website deals with and numbers of peers are the known individuals (Lin and Lu 2011). If an individual perceives that adequate members and peers are using the website consistently and will continue to use, the chances that he will remain loyal are high. The following two hypotheses are considered.

H9 Number of members directly and positively affects e-loyalty.

H10 Number of peers directly and positively affects e-loyalty.

Research methodology

This section discusses the questionnaire development method. After that, practical concerns like sampling strategy and sample size are delineated. Justification for use of non-probability sampling techniques and sample size is also provided. An explanation of the appropriateness of factor analysis and various methods for assessment of model fit is given. Further, justification for choosing CFA—a structural equation modelling technique over other methods is provided. Criteria to assess the validity and reliability of the obtained data and reasons for suitability of SEM using AMOS to test structural model and path significances are cited.

Questionnaire development

A questionnaire is developed to measure online web user perceptions about the research constructs—online loyal users are asked to indicate responses for their preferred website in each of the three categories of the website, i.e. product website, service website and social networking website.

A survey generally contains open-ended and close-ended questions. User frames their own answer to open-ended questions, whereas in close-ended questions respondents are restricted to mark their response from a given number of options. However, an open-ended question can be coded into a response scale afterwards or analysed using more qualitative methods (Westland 2014b). All the items in the questionnaire are close-ended questions. This study is cross-sectional as it provides information about the situation that exists at a single time (Abramson and Abramson 1999). The data collected for analysis is filled by respondents at a particular point of time and research is conducted in a limited time period.

The questionnaire is divided into two parts—first part contains general demographic information, which includes gender, age, education and occupation, while the second part contains questions about e-loyalty and its antecedents. Altogether, 33 items were derived and response scale used in this research is ordinal. Likert items are considered balanced where there is equal amount of positive and negative positions and it also obviate the problem of acquiescence bias (Westland 2014b). The respondent are asked to mark their response on Likert scale (1–5) where each scale item has five response categories, ranging from "strongly disagree" to "strongly agree. Respondents were asked to rate each of the antecedents of e-loyalty as to their level of importance.

The questionnaire adapted questions from prior literature, but with some adaptations in the context of the present study. Appendix Table 11, list the construct items that were originally considered with their corresponding literature sources. The scale used to measure e-loyalty was adapted from Semeijn et al. (2005) The scale of convenience, contact interactivity and convenience was adapted from Srinivasan et al. (2002). Responsiveness items were adapted from Semeijn et al. (2005). Scale to measure perceived value was adapted from Luarn and Lin (2003) and perceived trust from Cyr et al. (2007). E-satisfaction items were adapted from Sheng and Liu (2010).

To validate, the measurement instrument, a pre-test and a pilot test was done. Pre-test group include 12 respondents who have at least 3 years of experiences and have a preferable attitude towards a particular website in all three categories. They are asked to make the judgment whether the constructs and measures are appropriate and in line with the purpose of the study. A detailed discussion is done about structure, wordings, length and format of the instrument, several items were modified to reflect the questionnaire's purpose more clearly.

The pilot test involved 50 students, who favours a particular product website, service website and social networking website and have online experience of more than a year. Based on their responses and feedbacks, measurement items are modified and rephrased and few are removed (either they are very specific to a particular website category or are not appropriate for all categories), keeping in mind that same individual has to fill the questionnaire items simultaneously for three websites, thus item needs to be framed accordingly and with clear understandability. For example, Item- 'this website does not have a tool that makes product comparisons easy' is a very specific item related to the product website, thus removed. Appendix Table 10, list the original construct items with their corresponding literature sources. Modified questionnaire items are listed in Appendix Table 11. 33 items were derived to construct the questionnaire for the research. The questionnaire is listed in Appendix Table 12.

Sampling plan and data collection

The sampling frame for any probability sample is a complete list of all the cases in the population from which a sample is taken (Cooper and Schindler 2008). However, Saunders et al. (2009) identifies that in business research, the case may be that study do not have appropriate sample frame to answer research question or do not have a sample frame at all, alternatively, limited resources or the inability to specify a sampling frame may dictate the use of one or a number of non-probability sampling techniques.

As discussed previously, the objective of this research is to analyse the same user loyalty behaviour for three different kinds of websites—product website, service website and social networking website. Categorisation is done to determine the relative importance of antecedents of loyalty. Thus our questionnaire orients to those online users who have online experience and have a favourable attitude to three classes of websites, which necessarily means that the respondent should be loyal to at least one website in each category. It is almost impractical to identify our potential respondent out of the total number of Internet users. Sometimes, the target population is elusive and other sampling methods must be employed (Lesley 2012). Saunders et al. (2009) suggest that where no suitable list exists in the population, a researcher has to compile his/her own sampling frame, perhaps upon existing lists. The researcher, exercising judgement or expertise, chooses the elements to be included in the sample because he believes that they are representative of the population of interest or are otherwise appropriate.

Snowball sampling, a subset of purposive sampling method is used in this study. It gives us the liberty to identify the respondents, who are the loyal users in each of the three categories of the website. It was mainly carried out by sending e-mails, direct communication with some students, and instant communication with peers, friends and relatives who further delivered the questionnaire to their peers and friends. Although snowball sampling does not lead to representativeness but at times it is the best method available (Hsu et al. 2012) and studies have applied this method in their research (e.g. Tong 2009; Lin and Sun 2009; Hsu et al. 2012).

A total of 506 responses have been received which lied in our inclusion criteria, i.e. at least 5 visits per month for service website and social networking website and 2 visits per month to the product website. The response of 13 respondents was eliminated as 8 of them were partially filled and 5 of them have given the same rating for all the items. Finally, 493 valid questionnaires were retained for analysis. Respondents are asked to mark their response for their preferred website, separately in each of the three website categories.

All the respondents are from India. Respondents are across all age groups, but with the majority of males. Almost 62 % of the respondents are young (age group 18–30). Office workers and students comprise 64 % response where most of them are postgraduates. The number of postgraduates is followed by graduates and undergraduates. Sample demography is provided in Table 1.

Sample size

Many views exist regarding the sample size for research. Tabachnick and Fidell (2007) suggest minimum five cases per item, Habing (2003) recommends at least 50 and 5 times of variables and according to Field (2000) at least 10-15 subjects per variable. In this research, the sample size is 493, which lies well within recommended range. Westland (2010) gave a formula to calculate minimum sample size; provided a minimum effect size of 0.12, power level of 0.80, latent variables 10 and observed variables 33 with a

Table 1 Sample demography

Measure	Item	Frequency	%
Gender	Male	386	78.30
	Female	107	21.70
Age	Under 18	15	3.04
	18–30	305	61.86
	30–40	166	33.67
	40–50	5	1.01
	>50	2	0.40
Education	Undergraduate	142	28.80
	Graduate	159	32.25
	Postgraduate	192	38.94
Occupation	Student	121	24.54
	Office worker	337	68.35
	Self-employed	27	5.47
	Home makers	08	1.62

probability level of 0.05, Westland's formula gave a minimum sample size of 484.

Choice of statistical analysis for path models

Generally three approaches are used for testing the structural equation models or path models: (1) PLS-PA, (2) System of regression Eqs. (3) AMOS-LISREL type search algorithms. According to Westland (2014a), PLS-PA are primarily exploratory analysis tools and are not suitable for hypothesis testing. Further he suggests that PLS path estimates are biased and highly dispersed when computed from small samples and is a 'limited information approach' in a sense that path analysis implies that each of the ordinary least square (OLS) estimators on individual pairwise paths will, in most practical circumstances, replicate the results of PLS path analysis software.

First generation models such as regression, LOGIT, ANOVA and MANOVA can analyse only one level of linkage between independent and dependent variables at a time (Gefen et al. 2000). However, regression estimators are scaled, as recommended by Tukey (1954) versus the un-scaled path coefficients of PLS-PA and AMOS-LISREL approaches. The methods like multiple regressions were suitable for assessing constructs and relations between constructs. The first purpose of regression analysis is prediction, while the intent of a correlation is to evaluate the relationship between the dependent and independent variables (Tabachnick and Fidell 2007). Contrary to first generation tools like regression (Gerbing and Anderson 1988), SEM enables researchers to answer a set of interrelated research question in a single, systematic and comprehensive analysis by modelling the relationships among multiple independent and dependent construct simultaneously (Gefen et al. 2000).

SEM using AMOS is chosen over PLS-PA and regression equations due to the complex relationship between dependent, independent and mediating variables in proposed model of present research. SEM permits complicated variable relationships to be expressed through hierarchical or non-hierarchical, recursive or non-recursive structural equations, presenting a complete picture of the entire model (Hanushek and Jackson 1977; Jan Recker 2013). Also suggested by Westland (2012), research is generally better served by a 'full information method' such as covariance approaches (e.g. LISREL, AMOS) or a system of equations approach. Thus structural equation modelling seems to be the most apposite methods for addressing the research problems and hence confirmatory factor analysis (CFA) approach is applied; a special case of structural equation modelling analysis with maximum likelihood estimation. Amos 20.0 and SPSS 20.0 software packages are used for the assessment of the measurement model and structural model.

Results

Data analysis followed the two-step approach by Gerbing and Anderson (1988): first, convergent validity and discriminant validity of the measurement model are tested and second research hypotheses and structural model framework are examined.

Factor analysis

Factor analysis can be either confirmatory or exploratory. Based on the objective of data analysis, each of these approaches can be implemented. In situations where a researcher has relatively little theoretical or empirical basis to make strong assumptions about existing common factors or how many specific measured variables these common factors are likely to influence, exploratory factor analysis (EFA) is probably a more sensible approach than confirmatory factor analysis (CFA). But, when there is sufficient theoretical and empirical basis for a researcher to specify the model or small subset of models that is the most plausible, CFA is likely to be a better approach (Fabrigar et al. 1999). Confirmatory studies takes place when one is seeking evidence to justify (or perhaps disapprove) some idea (Adèr et al. 2008). The proposed structural model of e-loyalty in this study is developed based on strong literature support and there is a sufficient base for specified model. Thus, confirmatory factor analysis is used in this research. Figures 3, 4 and 5 show the output of factor analysis done on survey data for service website, product website and social networking website, respectively. All items have factor loadings greater than of 0.50 as recommended by (Hair et al. 1998).

Kaiser–Meyer–Olkin (KMO) statistics to test sample adequacy and Bartlett's test of sphericity to test sphericity, is applied to data prior to confirmatory

Rotated Factor Matrix[a]

	Factor									
	1	2	3	4	5	6	7	8	9	10
ELY1									.745	
ELY2									.780	
ELY3									.793	
RES1								.759		
RES2								.827		
RES3								.746		
COI1							.694			
COI2							.867			
COI3							.784			
CUS1			.828							
CUS2			.842							
CUS3			.843							
CUS4			.749							
CON1		.798								
CON2		.840								
CON3		.851								
CON4		.791								
PEV1	.851									
PEV2	.869									
PEV3	.856									
PEV4	.910									
TRU1						.748				
TRU2						.773				
TRU3						.894				
ESA1				.827						
ESA2				.856						
ESA3				.834						
MEM1										.763
MEM2										.816
MEM3										.834
PEE1					.826					
PEE2					.880					
PEE3					.885					

Extraction Method: Maximum Likelihood
Rotation Method: Varimax with Kaiser Normalization
a. Rotation converged in 6 iterations

Fig. 3 Factor loading—service website

factor analysis, to assess whether the data fits well with factor analysis. KMO measure of sampling adequacy varies from 0 to 1.0 and KMO value should be greater than or equal to 0.70 to proceed with factor analysis (Dziuban and Shirkey 1974). The Bartlett's test compares the observed correlation matrix to the identity matrix. A significant result (Significance level < 0.05) indicates matrix is not an identity matrix i.e. the variables do relate to one another enough to run a meaningful factor analysis. Table 2 shows the values of KMO test and Bartlett's test.

Rotated Factor Matrix[a]

	Factor									
	1	2	3	4	5	6	7	8	9	10
ELY1										.708
ELY2										.773
ELY3										.768
RES1							.804			
RES2							.726			
RES3							.829			
COI1					.833					
COI2					.804					
COI3					.789					
CUS1		.807								
CUS2		.875								
CUS3		.852								
CUS4		.788								
CON1			.801							
CON2			.812							
CON3			.819							
CON4			.722							
PEV1	.826									
PEV2	.885									
PEV3	.851									
PEV4	.785									
TRU1				.833						
TRU2				.803						
TRU3				.838						
ESA1						.832				
ESA2						.785				
ESA3						.809				
MEM1								.850		
MEM2								.819		
MEM3								.791		
PEE1									.769	
PEE2									.790	
PEE3									.882	

Extraction Method: Maximum Likelihood
Rotation Method: Varimax with Kaiser Normalization
a. Rotation converged in 6 iterations

Fig. 4 Factor loading—product website

Measurement model

As suggested by Cronbach (1971), content validity ascertains that construct items are representative and drawn and from a universal pool. All the construct items have been taken (with some adaptations to present study) from previous studies. E-service quality, e-trust, perceived value, number of members, number of peers, satisfaction are the latent constructs and exhibits strong content validity in the existing

Rotated Factor Matrix[a]

	Factor									
	1	2	3	4	5	6	7	8	9	10
ELY1								.738		
ELY2								.836		
ELY3								.794		
RES1						.837				
RES2						.841				
RES3						.844				
COI1										.835
COI2										.702
COI3										.769
CUS1		.859								
CUS2		.822								
CUS3		.757								
CUS4		.830								
CON1	.811									
CON2	.844									
CON3	.837									
CON4	.830									
PEV1			.817							
PEV2			.840							
PEV3			.803							
PEV4			.782							
TRU1							.802			
TRU2							.868			
TRU3							.825			
ESA1									.817	
ESA2									.776	
ESA3									.817	
MEM1				.830						
MEM2				.850						
MEM3				.844						
PEE1					.808					
PEE2					.800					
PEE3					.840					

Extraction Method: Maximum Likelihood
Rotation Method: Varimax with Kaiser Normalization
a. Rotation converged in 6 iterations

Fig. 5 Factor loading—social networking website

literature, thus ensures content validity of the construct items for this study. Existing literature on e-loyalty provides sufficient evidence that all construct which are considered latent in this study, are not directly measurable. Appendix Table 10 lists the construct items with their corresponding sources.

Internal consistency of the proposed model is determined by measuring Cronbach's alpha and composite reliability (CR). Table 3 exhibits factor loadings and alpha values, while CR values are shown in Tables 4, 5 and 6 for all the three website categories. The model to be internally consistent,

Table 2 Kaiser-Meyer-Olkin and Bartlett's test

	Service website	Product website	Social networking website
KMO measure of sampling adequacy	0.845	0.847	0.838
Bartlett's test of sphericity			
Approx. χ^2	10,812.206	10,801.906	111.03.63
df	528	528	528
Sig.	0.000	0.000	0.000

Table 3 Internal consistency

Construct	Items	Service website		Product website		Social networking website	
		Factor loading	Alpha	Factor loading	Alpha	Factor loading	Alpha
E-loyalty	ELY1	0.745	0.937	0.708	0.927	0.738	0.937
	ELY2	0.780		0.773		0.836	
	ELY3	0.793		0.768		0.794	
Responsiveness	RES1	0.759	0.857	0.804	0.873	0.837	0.906
	RES2	0.827		0.726		0.841	
	RES3	0.746		0.829		0.844	
Contact interactivity	COI1	0.694	0.857	0.833	0.888	0.835	0.852
	COI2	0.867		0.804		0.702	
	COI3	0.784		0.789		0.769	
Customization	CUS1	0.828	0.901	0.807	0.924	0.859	0.904
	CUS2	0.842		0.875		0.822	
	CUS3	0.843		0.852		0.757	
	CUS4	0.749		0.788		0.830	
Convenience	CON1	0.798	0.912	0.801	0.897	0.811	0.917
	CON2	0.840		0.812		0.844	
	CON3	0.851		0.819		0.837	
	CON4	0.791		0.722		0.830	
Perceived value	PEV1	0.851	0.930	0.826	0.917	0.817	0.887
	PEV2	0.869		0.885		0.840	
	PEV3	0.856		0.851		0.803	
	PEV4	0.910		0.785		0.782	
E-trust	TRU1	0.748	0.860	0.833	0.876	0.802	0.877
	TRU2	0.773		0.803		0.868	
	TRU3	0.894		0.838		0.825	
E-satisfaction	ESA1	0.827	0.892	0.832	0.860	0.817	0.859
	ESA2	0.856		0.785		0.776	
	ESA3	0.834		0.809		0.817	
Number of members	MEM1	0.763	0.848	0.850	0.858	0.830	0.901
	MEM2	0.816		0.819		0.850	
	MEM3	0.834		0.791		0.844	
Number of peers	PEE1	0.826	0.899	0.769	0.853	0.808	0.895
	PEE2	0.880		0.790		0.800	
	PEE3	0.885		0.882		0.840	

Table 4 Discriminant validity—service website

	CR	AVE	PEV	RES	CUS	COI	CON	ESA	MEM	PEE	ELY	TRU
PEV	0.931	0.772	0.879									
RES	0.861	0.674	0.111	0.821								
CUS	0.906	0.706	0.086	0.300	0.840							
COI	0.914	0.728	0.114	0.366	0.319	0.853						
CON	0.862	0.677	0.132	0.355	0.301	0.318	0.823					
ESA	0.894	0.738	0.085	0.166	0.116	0.160	0.195	0.859				
MEM	0.850	0.655	0.006	0.054	0.011	0.054	0.055	0.137	0.809			
PEE	0.901	0.752	−0.004	0.012	0.023	−0.105	0.041	0.064	−0.119	0.867		
ELY	0.938	0.836	0.328	0.408	0.384	0.359	0.394	0.376	0.144	0.003	0.914	
TRU	0.863	0.679	0.090	0.034	0.066	0.125	0.162	0.210	0.034	−.043	0.422	0.824

CR Construct reliability, *AVE* average variance extracted, diagonal element in bold: Square root of AVE, *PEV* e-perceived value, *RES* responsiveness, *CUS* customization, *COI* contact interactivity, *CON* convenience, *ESA* e-satisfaction, *MEM* number of members, *PEE* number of peers, *ELY* e-loyalty, *TRU* e-trust

Table 5 Discriminant validity—product website

	CR	AVE	PEV	RES	CUS	COI	CON	ESA	MEM	PEE	ELY	TRU
PEV	0.918	0.738	0.859									
RES	0.876	0.703	0.113	0.839								
CUS	0.926	0.757	0.102	0.376	0.870							
COI	0.901	0.696	0.137	0.471	0.433	0.834						
CON	0.890	0.731	0.123	0.382	0.395	0.386	0.855					
ESA	0.863	0.677	0.196	0.060	0.093	0.135	0.112	0.823				
MEM	0.861	0.674	−0.011	−0.002	−0.081	−0.002	−0.003	0.100	0.821			
PEE	0.856	0.665	0.040	0.011	0.066	−0.014	0.046	0.062	−0.004	0.815		
ELY	0.930	0.816	0.618	0.198	0.209	0.220	0.230	0.382	0.017	0.121	0.903	
TRU	0.878	0.705	0.218	0.036	0.084	0.071	0.113	0.128	−0.002	0.050	0.414	0.840

CR Construct reliability, *AVE* average variance extracted, diagonal element in bold: square root of AVE. *PEV* e-perceived value, *RES* responsiveness, *CUS* customization, *COI* contact interactivity, *CON* convenience, *ESA* e-satisfaction, *MEM* number of members, *PEE* number of peers, *ELY* e-loyalty, *TRU* e-trust

Cronbach's alpha should be greater than 0.7 suggested by Nunnally (1978), and every construct's composite score should be above 0.7 recommended by Fornell and Larcker (1981). The alpha value for service website ranges from 0.857 to 0.937, for product website from 0.860 to 0.927 and for the social networking website from 0.852 to 0.937. CR values for service website ranges from 0.850 to 0.938, for product website from 0.856 to 0.930 and for the social networking website from 0.858 to 0.937. Thus, all the values are in the recommended range indicates that measurement items for each construct are reliable and stable, ensuring model's internal consistency.

Construct validity comprises convergent validity and discriminant validity. As defined by Straub (1989), convergent validity ensures that there are relatively high correlations between the measures of the same construct and discriminant validity ensures that there are low correlations between the measures of different constructs that are expected to differ.

Measurement of convergent validity uses the three criteria suggested by Bagozzi and Yi (1988), (1) factor loadings of all items should exceed 0.5 (Hair et al. 1998); (2) composite reliability (CR) should be above 0.7; (3) average variance extracted (AVE) of every construct should exceed 0.5 (Fornell and Larcker

Table 6 Discriminant validity—social networking website

	CR	AVE	PEV	RES	CUS	COI	CON	ESA	MEM	PEE	ELY	TRU
PEV	0.890	0.670	0.818									
RES	0.909	0.769	0.076	0.877								
CUS	0.908	0.712	0.036	0.335	0.844							
COI	0.918	0.737	0.123	0.274	0.340	0.858						
CON	0.858	0.669	0.105	0.409	0.371	0.359	0.818					
ESA	0.861	0.675	0.085	0.097	0.058	0.138	0.078	0.821				
MEM	0.902	0.753	0.166	0.033	0.080	0.048	0.032	0.197	0.868			
PEE	0.895	0.740	0.196	0.098	0.098	0.034	0.162	0.294	0.319	0.860		
ELY	0.937	0.833	0.279	0.177	0.127	0.170	0.145	0.402	0.496	0.576	0.913	
TRU	0.880	0.710	0.020	0.107	0.092	0.120	0.061	0.076	0.140	0.208	0.290	0.843

CR Construct reliability, *AVE* average variance extracted, diagonal element in bold: square root of AVE. *PEV* perceived value, *RES* responsiveness, *CUS* customization, *COI* contact interactivity, *CON* convenience, *ESA* e-satisfaction, *MEM* number of members, *PEE* number of peers, *ELY* e-loyalty, *TRU* e-trust

1981). AVE is the average amount of variance in observed variables that a latent construct is able to explain (Farrell 2010). Factor loadings of all the factors are above the recommended value of 0.5. CR values are well above the threshold level of 0.70. AVE for service website is in the range of 0.655–0.836, for product website 0.677–0.816 and for social networking website 0.669–0.833. All AVE values are above the recommended level of 0.5, thus the model meets all convergent validity conditions.

To achieve discriminant validity, the square root of AVE should exceed the inter-construct correlations below and across them (Fornell and Larcker 1981). For all three categories of websites, square root of the AVE of each construct exceeds the correlations between the construct and any other constructs, ensures discriminant validity of the measurement model as shown in Tables 4, 5 and 6. Therefore, the measurement model in this study exhibits acceptable reliability, convergent validity, and discriminant validity.

Structural model

To evaluate the model fits, Chi-square with degree of freedom (CMIN/df), the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), normal fit index (NFI), comparative fit index (CFI) and root mean square error of approximation (RMSEA) were assessed. We find a good fit between the model and the observed data. Table 7 exhibits model fit indices for three different categories of websites, i.e. service

Table 7 Model fit indices

Fit indices	Recommended value	Suggested by authors	Measurement model		
			Service website	Product website	Social networking website
CMIN/df	≤3	Hayduck (1987)	0.993	1.259	1.667
Goodness-of-fit index (GFI)	≥0.9	Scott (1991)	0.945	0.932	0.909
Adjusted for degrees of freedom (AGFI)	≥0.8	Scott (1991)	0.936	0.921	0.894
Normal fit index (NFI)	≥0.9	Bentler and Bonnet (1980)	0.957	0.945	0.929
Comparative fit index (CFI)	≥0.9	Bagozzi and Yi (1988)	1	0.988	0.970
Root mean square error of approximation (RMSEA)	≤0.08	Bagozzi and Yi (1988)	0	0.023	0.037

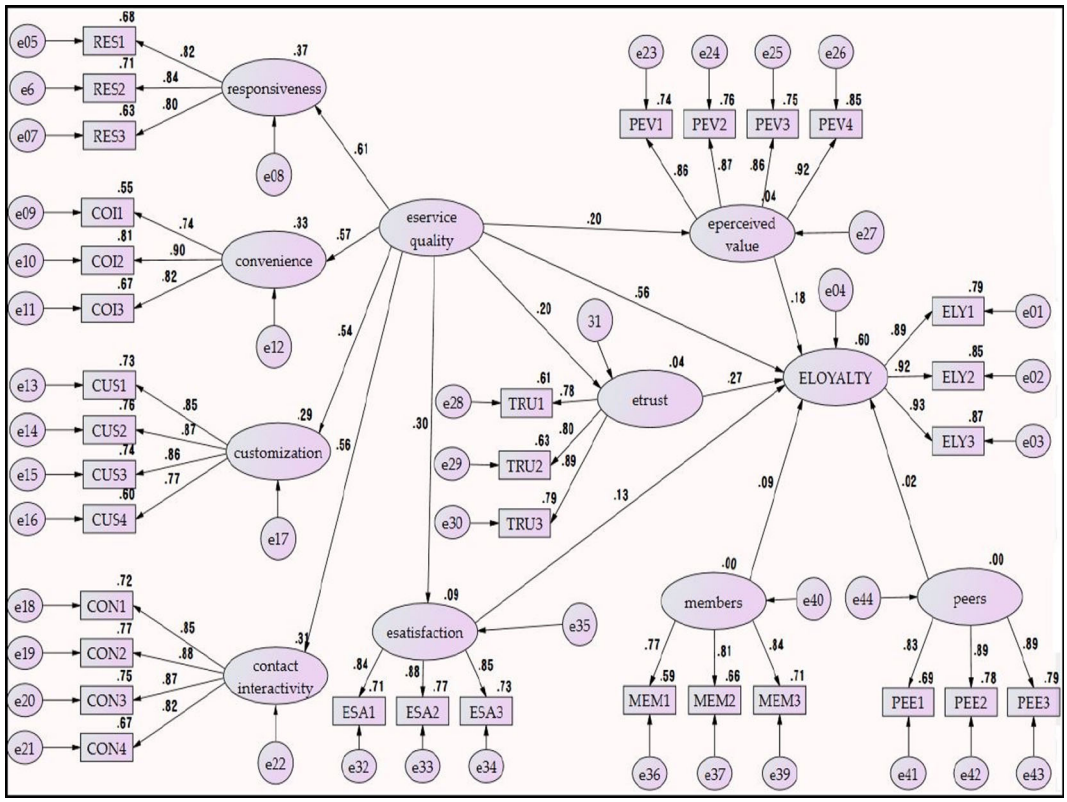

Fig. 6 Path analysis—service website

website, product website and social networking website. Approximately, 60, 52 and 43 percent of the variance in the e-loyalty variable is explained by other variables in service website ($R^2 = 0.60$), product website ($R^2 = 0.52$) and social networking website ($R^2 = 0.43$), respectively. As indicated by Sirohi et al. (1998) if R^2 is greater than 30 % than model has medium predictive power and Falk and Miller (1992) suggested the minimum value of R^2 should be above 10 %. Thus, our model exhibits good explanatory power for the dependent variable.

Path analysis results are depicted in Fig. 6 (service website), Fig. 7 (product website) and Fig. 8 (social networking website). Results for service website shows that responsiveness ($\beta = 0.61$, $P < 0.001$), convenience ($\beta = 0.57$, $P < 0.001$), customization ($\beta = 0.54$, $P < 0.001$) and contact interactivity ($\beta = 0.56$, $P < 0.001$) are the constituents of e-service and are consistent with the hypotheses H1(a), H1(b), H1(c) and H1(d). E-service quality is found to have positive and direct effect on perceived value, e-trust and e-satisfaction: e-service quality → perceived value ($\beta = 0.20$, $P < 0.001$), e-service quality → e-trust ($\beta = 0.20$, $P < 0.01$), e-service quality → e-satisfaction ($\beta = 0.30$, $P < 0.001$) supported H(2), H(3) and H(4), respectively. Further results supported the hypotheses H(5), H(6), H(7), H(8) and H(9) as e-service quality, ($\beta = 0.56$, $P < 0.001$), perceived value ($\beta = 0.18$, $P < 0.01$), e-trust ($\beta = 0.27$, $P < 0.001$), e-satisfaction ($\beta = 0.13$, $P < 0.01$), and number of members ($\beta = 0.09$, $P < 0.05$) positively and directly affect e-loyalty. Number of peers does not affect e-loyalty as ($\beta = 0.02$, P value is insignificant). Thus, we do not find enough evidence to support H(10).

Results for product website exhibits that responsiveness ($\beta = 0.64$, $P < 0.001$), convenience ($\beta = 0.60$, $P < 0.001$), customization ($\beta = 0.62$, $P < 0.001$) and contact interactivity ($\beta = 0.69$, $P < 0.001$) has favourable direct effects on e-service quality, thus support hypotheses H1(a), H1(b), H1(c) and H1(d). E-service quality have consequential

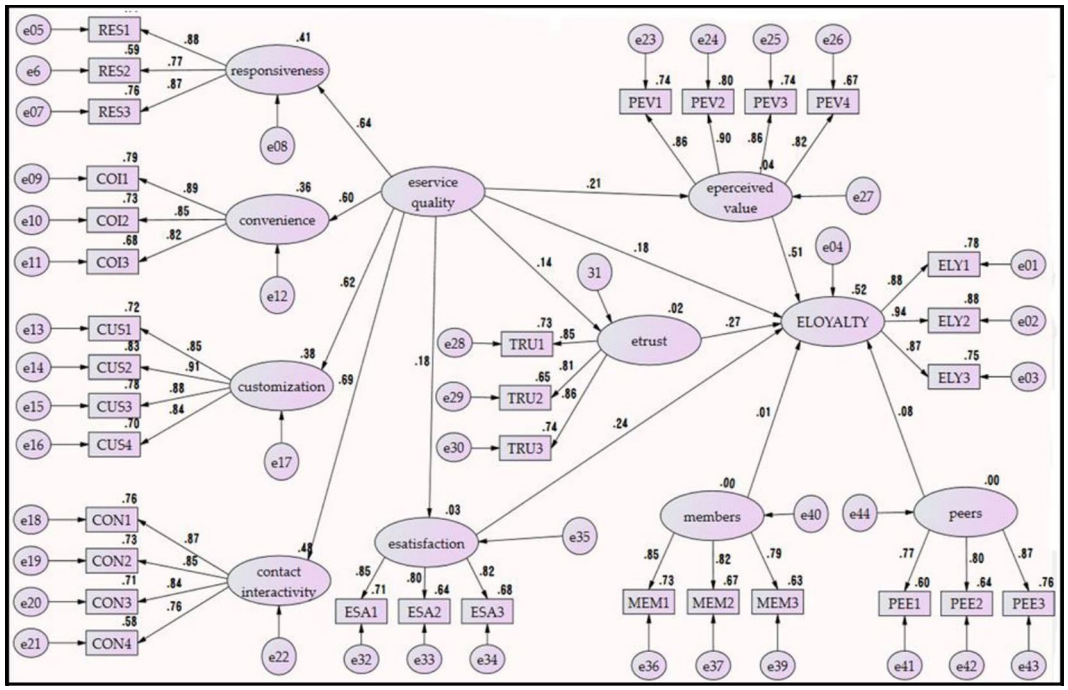

Fig. 7 Path analysis—product website

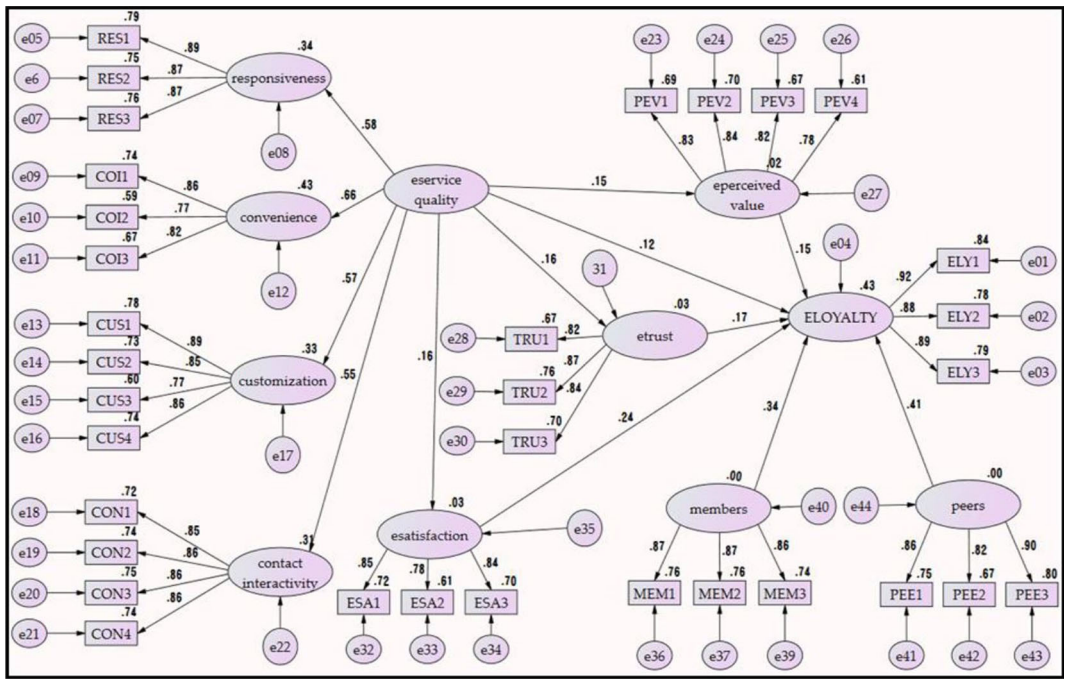

Fig. 8 Path analysis—social networking website

Table 8 Path coefficients

Hypothesis	Causal path	Service website	Product website	Social networking website
H1(a)	Responsiveness → e-service quality	0.608***	0.637***	0.581***
H1(b)	Convenience → e-service quality	0.570***	0.598***	0.656***
H1(c)	Customization → e-service quality	0.540***	0.620***	0.571***
H1(d)	Contact interactivity → e-service quality	0.558***	0.692***	0.553***
H2	E-service quality → perceived value	0.204***	0.207***	0.149*
H3	E-service quality → e-trust	0.201**	0.140*	0.160**
H4	E-service quality → e-satisfaction	0.301***	0.178**	0.163**
H5	e-service quality → e-loyalty	0.560***	0.179***	0.116*
H6	Perceived value → e-loyalty	0.183***	0.510***	0.148***
H7	E-trust → e-loyalty	0.270***	0.274***	0.165***
H8	E-satisfaction → e-loyalty	0.134**	0.238***	0.236***
H9	Number of members → e-loyalty	0.086*	0.007 ^{ns}	0.341***
H10	Number of peers → e-loyalty	0.017 ^{ns}	0.077*	0.408***

*** P value <0.001, ** P value <0.01, * P value <0.05, *ns* P value—not significant

positive effect on perceived value, e-trust and e-satisfaction: e-service quality → perceived value ($\beta = 0.21$, $P < 0.001$), e-service quality → e-trust ($\beta = 0.14$, $P < 0.05$), e-service quality → e-satisfaction ($\beta = 018$, $P < 0.001$) draws support in favour of H(2), H(3) and H(4), respectively. E-service quality ($\beta = 0.18$, $P < 0.001$), perceived value ($\beta = 0.51$, $P < 0.001$), e-trust ($\beta = 0.27$, $P < 0.001$), e-satisfaction ($\beta = 0.24$, $P < 0.001$), and number of peers ($\beta = 0.08$, $P < 0.05$) have the positive and significant impact on e-loyalty. Thus, hypothesis H (5), H (6), H (7), H (8) and H (10) is supported. However, number of members has ($\beta = 0.01$, P value insignificant), does not have a significant direct impact on e-loyalty and therefore H(9) is not supported.

Outcome for social networking website indicates that responsiveness ($\beta = 0.58$, $P < 0.001$), convenience ($\beta = 0.66$, $P < 0.001$), customization ($\beta = 0.57$, $P < 0.001$) and contact interactivity ($\beta = 0.55$, $P < 0.001$), positively affect e-service quality, thus the hypothesis H1(a), H1(b), H1(c) and H1(d) are well supported. E-service quality is found to have positive and direct effect on e-trust, e-satisfaction and perceived value: e-service quality → perceived value ($\beta = 0.15$, $P < 0.05$), e-service quality → e-trust ($\beta = 0.16$, $P < 0.01$), e-service quality → e-satisfaction ($\beta = 0.16$, $P < 0.01$), in support of H(2), H(3) and H(4), respectively. E-service quality ($\beta = 0.12$, $P < 0.05$), perceived value ($\beta = 0.15$, $P < 0.001$), e-trust ($\beta = 0.17$, $P < 0.001$), e-satisfaction ($\beta = 0.24$, $P < 0.001$), number of members ($\beta = 0.34$, $P < 0.001$) and number of peers ($\beta = 0.41$, $P < 0.001$) have the significant and positive impact on e-loyalty, supports H(5), H(6), H(7), H(8), H(9), H(10).

Table 8 summarises structural analysis result, indicates the beta values with significance level of each construct. It shows the strength of association between a latent variable and its construct and among the constructs.

The e-service quality is the most important contributor of e-loyalty for a service website ($\beta = 0.560$, $P < 0.001$), while for a product value it is perceived value ($\beta = 0.510$, $P < 0.001$) and for social networking website number of peers tops the list (0.408, $P < 0.001$).E-trust is second most influential factor for website loyalty in service website ($\beta = 0.270$, $P < 0.001$) and for product website (β 0.274, $P < 0.001$), while for social networking website it is number of members (0.341, $P < 0.001$). E -satisfaction shares third spot in terms of influencing strength in product website ($\beta = 0.238$, $P < 0.001$) and social networking website ($\beta = 0.236$, $P < 0.001$), while for service website perceived value ($\beta = 0.183$, $P < 0.001$) is ranked third. Fourth place is acquired by e-satisfaction in service website ($\beta = 0.301$, $P < 0.001$), e-trust in social networking ($\beta = 0.165$, $P < 0.001$) website, and e-service quality in product website ($\beta = 0.179$, $P < 0.001$). Fifth ranked antecedent for service website is number of members

Table 9 Hierarchies of e-loyalty antecedents

	Service website	Product website	SNS website
E-loyalty ← e-service quality	1	4	6
E-loyalty ← members	5	Insignificant	2
E-loyalty ← peers	Insignificant	5	1
E-loyalty ← e-perceived value	3	1	5
E-loyalty ← e-satisfaction	4	3	3
E-loyalty ← e-trust	2	2	4

($\beta = 0.086$, $P < 0.05$), for product website is number of peers ($\beta = 0.077$, $P < 0.05$) and for social networking website is perceived value ($\beta = 0.148$, $P < 0.001$). E-service quality ($\beta = 0.116$, $P < 0.05$) ranked sixth in social networking website. Table 9 shows the relative comparison of e-loyalty antecedents for the three websites.

Discussion

The findings confirmed that e-service quality, e-perceived value, e-trust, e-satisfaction, number of members and numbers of peers were the determinants of e-loyalty. Further, e-service quality comprised of convenience, customization, contact interactivity and responsiveness. Number of members does not have a significant impact on loyalty for product website, while number of peers does not have a considerable relationship with loyalty in service website. Following subsections provides a detailed discussion on conclusions, implications and limitations of the study.

Conclusions

In line with our objectives, we compare the results and find that significant difference lie in the strength of association between e-loyalty and its determinants among three categories of the website. We found strong evidence to support hypotheses H1-H10 for all categories except the H9 and H10 (for product website and service website, respectively); however, noteworthy differences in their priorities occurred. The relation between numbers of peers and e-loyalty is insignificant for service website (H9 is not supported) but it is significant for product website and social networking website (H9 supported). E-loyalty and number of members relation are significant in service website and social networking website (H10 is supported); whereas we do not find empirical evidence to support e-loyalty and number of members association in product website (H9 is not supported).

The results of this study provide a consistent picture of how e-loyalty is influenced by the user's primary need/motive. Three categories of websites were examined; we found that the relationship between e-loyalty and its antecedents for a website, even for the same user, varies with his varying dominant need. For example, when a user logs on to his preferred website to purchase a product, his expectations differ when the same user visits his preferred service website or logs in his preferred social networking website. We were able to show that e-service quality, perceived value, e-trust, e-satisfaction, number of members and numbers of peers are determinants of e-loyalty but have different significance for the same user in the different website category.

Perceived value is the strongest predictor of e-loyalty in online product purchase environment. This conclusion is line with Cyr et al. (2008) and Khare et al. (2012). Perceived value includes monetary payments (Chen and Dubinsky 2003; Yang and Peterson; 2004; Wen et al. 2014) and we argue that price perceptions are most important factors in determining loyalty for a product website in Indian context. Both studies (Cyr et al. 2008; Khare et al. 2012) were done in Indian context and were able to show that price perception is the most influential factor in determining e-loyalty. In other regions also price definitely plays an important in framing consumer decision whether to purchase in future or not (Supphellen and Nysveen 2001; Ribbink et al. 2004; Kim and Kim 2004). Cyr et al. (2008) compared the role of trust, satisfaction and loyalty for a local website (Indian) and foreign website. They have conducted similar kind of study in Germany, USA, Russia, Canada and Japan. The revealing factor was that in the Indian context, most individuals agreed that price is the most important factor in deciding whether or not to purchase from this website. In fact, one Indian participant elaborated "even if we want the funkiest one (website) having really exciting features and look, we have to see the

price tag first". Further, it is evident by the following observation. According to Alexa.com (a web analytics company), top leading retail websites of India (in terms of traffic) are Flipkart.com and Amazon.in. These leading websites focus primarily on price saving deals. For instance, on date 14.07.2015 front page of amazon.in says—"60 % off on home and kitchen", "Men shoes Rs 999 or below", "Great savings every days and today's deal". Flipkart.com says "Natural nourish up to 25 % off", "minimum 20 % off on professional care" and so on. Such scenario is true for any day of the year. Followed by perceived value, e-trust is the second most influential factor. This result is contrary to Christodoulides and Michaelidou (2010) and Ribbink et al. (2004) where e-satisfaction outranks e-trust but consistent with (Harris and Goode 2004) where trust is the most significant contributor. Kim and Kim (2004) also observed that transaction/cost factor is the most significant contributor to overall perceptions of online shopping attributes. Transaction cost/factor included eight attributes related to price and trust (credit card security, fast delivery, cheaper price, no or low shipping and handling charge, money-back guarantee, privacy assurance, access to major credit card and information reliability of seller). E-satisfaction also plays an important role in determining e-loyalty. Christodoulides and Michaelidou (2010) concluded a positive relationship between e-satisfaction and e-loyalty for fashion accessories purchase, while Kim et al. (2008) done that in apparel purchasing context. Wang and Head (2007) also concluded that e-satisfaction is important for product purchase like books, CD's and DVD's. Further, the result suggests that e-service quality also contributes to developing e-loyalty in purchasing environment, consistent with Gefen (2002) and Valvi and Fragkos (2012). However, the relative importance of e-service quality is less as compared to other major antecedents. Ha and Stoel (2009) had similar observations. They concluded that e-shopping behaviour is determined by usefulness and trust whereas perceived ease of use (a determinant of service quality) did not influence consumers' e-shopping decision. Number of peers affects e-loyalty intentions, while number of members does not. The probable reason is that product purchase involves financial transaction and users need assurance from their known ones rather than relying on a community as a whole before doing a financial transaction. In online shopping context Khare et al. (2012) argued, consumers feel insecure about financial transactions and adopt a product/service only when it is adopted by others or when "influential others" (family members and peer groups) recommend it. Gefen (2002) observed that purchasing books from Amazon.com is probably less risky than purchasing books from unknown and new online book vendor. Known members may be perceived as more trustworthy and credible than unknown strangers (Chu and Kim, 2011). Everywhere, it seems, people still trust their friends (Pfanner 2007) and consumers rely on personal communication sources in making the purchase decision (Casaló et al. 2008).

In this study, results for service website should be interpreted in light of one notable observation. In terms of traffic, out of 25 leading websites of India (extracted from Alexa.com, 2015) 19 can be categorised as service websites and all are free service providers i.e. not charging any subscription fee or any kind of payment for their services. Thus, it is appropriate to assume that respondents in this study are the ones whose preferred service website is providing free services and perceived value includes non-monetary aspects.

E-service quality (convenience, responsiveness, customization and contact interactivity) has a direct effect on e-loyalty and also affects it indirectly through e-satisfaction, trust and perceived value in the service context. E-service quality does play a role in product websites but for service website it is the most significant contributor of e-loyalty. This result is in contrast to many studies and the probable reason is that the studies were done in e-retailing or e-commerce environment where all kinds of products and services are included in single category (e.g. Srinivasan et al. 2002; Lu et al. 2013; Lee and Overby 2004; Wen et al. 2014). However, studies conducted in pure service environment acknowledged the importance the of e-service quality dimensions. For a content-based website, responsiveness and user interface plays an important role in determining e-loyalty (Gummerus et al. 2004). In the context of e-banking, convenience/ease of use should be given highest priority (Casaló et al. 2008). For an information-based website, Chiu et al. (2009) recommended website managers and designers should focus the structure and contents of the website. E-trust ranks second, followed by perceived value and e-satisfaction in case of service

website. Cyr et al. (2009) done an empirical analysis in context of booking vacation package (no offline fulfilment—website is created only for research purpose) and concluded that contact interactivity, efficiency, effectiveness, enjoyment and trust resulted in e-loyalty. Polites et al. (2012) for online hotel reservations, observed that satisfaction alone is not sufficient for creating loyalty, collective impact of factors like information quality, perceived usefulness, system quality, trust and value are more important than satisfaction. For a service website, loyalty intention of an individual is also affected by total number of members using that particular website. In other words, the popularity of a website motivates consumer for continued intention. In such scenarios where financial transactions are not involved (as discussed above), probably users can rely on external sources and looks for greater network benefits. In the service environment, website's consumer base can influence an individual to avail service of a particular service provider. For instance, an e-mail service provider with a large user group provides greater network benefits for subsequent e-mail users (Lin and Bhattacherjee 2008).

For a social networking website, number of members and number of peers is the most significant contributor. In the similar vein, other studies have also confirmed that individuals are more inclined to use the website as more friends or peers join (Baker and White 2010; Powell 2009; Lin and Bhattacherjee 2008). Brandtzaeg and Heim (2009) also concluded; get in contact with new people and to keep in touch with friends are the most influential factors that motivate an individual for using social networking sites. In their finding, number of peers outranked number of people but our findings suggests that peers are more influential than members; this is in line with Lin and Lu (2011). Following these two variables, e-satisfaction plays an important role for an individual for the continued use of the social networking website. E-satisfaction is a strong predictor of social networking site continuance intention; this conclusion is consistent with others (Cao et al. 2013; Limayem et al., 2007). E-trust, perceived value and e-service quality more or less contribute equally to create loyalty for a social networking website. The results are consistent with Sledgianowski and Kulviwat (2009) where perceived ease of use, perceived trust and perceived value/usefulness contributes almost equally in developing e-loyalty for a social networking site.

Implications

The study contributes to research in e-loyalty in many ways. First, it highlights the importance of user need-based website categorisation. This approach helps us to understand the expectations of a user from product/service provider. Second, it provides a better understanding of the relative importance of e-loyalty determinants for different websites. Websites need to consider not only the determinants of e-loyalty but also mull over the significance of these antecedents. Specifically, we identified perceived value, e-service quality and number of peers as the most influential factors in determining e-loyalty for product website, service website and social networking website, respectively. E-service quality, e-trust, perceived value and e-satisfaction are identified as major antecedents of website loyalty across all domains. Third, along with major antecedents, two social factors (numbers of members and number of peers) are integrated with proposed model of e-loyalty and their effects are examined on loyalty intentions. Thus, this study highlights the importance of social factors especially for product website and service website.

Our study has also a number of practical implications. Results furnish website managers a better understanding of website user behaviour. The straightforward implication of our study is that although antecedents of e-loyalty are more or less same in different website categories, but the treatment of these antecedents should differ as per the case. For example, a retail website mainly dealing with tangible products should primarily focus on price saving deals. For intangible service, website managers should give closer attention to responsiveness, interactivity, customization and convenience of the website. A social networking website should emphasise on critical mass i.e. the point where the adopter perceives that the site has a significant number of members that he or she can associate with (Sledgianowski and Kulviwat 2009). In sum, to increase the efficacy of the e-loyalty model, it is necessary to pay close attention to determinants that causes e-loyalty, but also the website class which is typically formed on basis of users' primary need.

Limitations and suggestions for future studies

Despite its contribution, the study has many limitations. First, this study employed a research model and examined it with the sample collected by snowball sampling method, thus generalisability of this research is limited. More sophisticated sampling methods could be used. Second, the results are gender skewed as 78.30 % of the sample being men, while 21.70 % are female. Third, the response are obtained from a user for product website, service website and social networking website, results may be more accurate if the responses are obtained for one particular website in each category.

We recommend further investigation and comparison should be done for specific websites in each category. Our study did not consider the influence of variables like system availability, empathy, e-scape, assurance and other which also influences e-loyalty, we urge other researchers to incorporate these into e-loyalty models. Further, this study does not consider the role of switching cost in loyalty behaviour which indeed is an interesting aspect to consider. Future studies should explore the answer to the question—whether the switching cost varies for different websites even for the same individual? Also, it would we worth examining whether different results are obtained if e-service quality is broken down into its components rather than measuring overall e-service quality. We hope that our findings will contribute to the accomplishment of accurate and meticulous e-loyalty models in future research.

Appendix

See Tables 10, 11 and 12.

Table 10 Original items considered in study

Number of members Lin and Lu (2011)
I think a good number of people use Facebook
I think most people are using Facebook
I think there will still be many people joining Facebook
Number of Peers Lin and Lu (2011)
I think many friends around me use Facebook
I think most of my friends are using Facebook
I anticipate many friends will use Facebook in the future
Convenience Srinivasan et al. (2002)
Navigation through this website is not very intuitive^{R}
A first-time buyer can make a purchase from this website without much help
It takes a long time to shop at this website^{R}
This website is a user-friendly site
This website is very convenient to use
Customization Srinivasan et al. (2002)
This website makes purchase recommendations that match my needs
This website enables me to order products that are tailor-made for me
The advertisements and promotions that this website sends to me are tailored to my situation
This website makes me feel that I am a unique customer
I believe that this website is customized to my needs
Contact Interactivity Srinivasan et al. (2002)
This website enables me to view the merchandise from different angles
This website has a search tool that enables me to locate products
This website does not have a tool that makes product comparisons easy^{R}
I feel that this is a very engaging website
I believe that this website is not a very dynamic one
E-loyalty Semeijn et al. (2005)

Table 10 continued

Prefer this company
Use the same website again
Recommends to others
Responsiveness Semeijn et al. (2005)
Easy to get in touch
Interested in feedback
Reply quickly to requests
Perceived trust Cyr et al. (2007)
I can trust this website
I trust the information presented on this website
I feel this online vendor would provide me with good service
E-satisfaction Sheng and Liu (2010)
I feel satisfied of all my experiences on this site
I feel wise to use this site
Generally speaking, I think it is a accurate decision to purchase on this site I feel satisfied because this site can satisfy my purchase demanding
Perceived value Luarn and Lin (2003)
The products and/or services provided by the e-service are well priced
Considering what I would pay for this e-service, I will get much more than the worth of my time, effort and money
Based on simultaneous considerations of what I received and what I gave up to receive it, I consider this e-service to be valuable

Table 11 Survey items for present context

Construct	Item
No of members	1. I think a good number of people are using this website (MEM1)
Source Luarn and Lin (2003)	2. I think most people are using this website (MEM2)
	3. I think there will still be many people use this website (MEM3)
No of peers	4. I think many friends around me use this website (PEE1)
Source Luarn and Lin (2003)	5. I think most of my friends are using this website (PEE2)
	6. I anticipate many friends will use this website in the future (PEE3)
Convenience	7. A first-time user can locate the items on the website easily (CON1)
Source Srinivasan et al. (2002)	8. This website does not take much time to meet my demands (CON2)
	9. This website is a user-friendly site (CON3).
	10. This website is very convenient to use (CON4).
Contact Interactivity	11. I feel this is a very engaging website (COI1).
Source Srinivasan et al. (2002)	12. This is a very dynamic website (COI2)
	13. My interaction with this website is clear and understandable (COI3)
Customization	14. This website makes recommendations that match my needs (CUS1)
Source Srinivasan et al. (2002)	15. The advertisements and promotions that this website sends to me are tailored to my situation (CUS2)
	16. This website makes me feel that I am a unique customer (CUS3)
	17. I believe that this website is customized to my needs (CUS4)
Responsiveness	18. It is easy to get in touch with the website (RES1)
Source Semeijn et al. (2005)	19. Website is always interested in feedback (RES2).
	20. Website quickly responds to user request (RES3).

Table 11 continued

Construct	Item
Perceived Value	21. I get much more than the worth of my time, effort and money (PEV1)
Source: Luarn and Lin (2003)	22. Based on simultaneous considerations of what I give and what I receive, I consider this website to be valuable (PEV2).
	23. The choices of products and/or services offered by the website are better than its competitor (PEV3)
	24. After every visit, it makes me feel, it is worth using this website (PEV3)
Perceived trust	25. I can trust this website (TRU1)
Source Cyr et al. (2004)	26. I trust the information presented on this website (TRU2)
	27. I feel this website will keep my data secure and will not share with anyone else (TRU3)
E-satisfaction	28. I feel satisfied of all my experiences on this site (ESA1)
Source Sheng and Liu (2010)	29. I feel wise to use this site (ESA2)
	30. Generally speaking, I think it is a accurate decision to go on to this particular website for my needs and requirements (ESA3)
Perceived Loyalty	31. I prefer this website (ELY1)
Source: Semeijn et al. (2005)	32. I will use the same website again (ELY2)
	33. I recommend this website to others (ELY3)

Table 12 Questionnaire

1	Name		
2	Gender	Male [] Female []	
3	Occupation	Student [] Office worker [] Self-Employed [] Home maker []	
4	Age	Under 18 [] 18–30 [] 31–40 [] 41–50 [] >50 []	
5	Education	Undergraduate [] Graduate [] Postgraduate []	
6	Contact No		
7	E-mail Id		
8	City		
9	State		
10	For availment of service you always prefer a particular service website?	Yes []	No []
11	How often do you visit that particular service website?	≥5 times a month []	<5 times a month []
12	You always prefer a particular website while purchasing a product?	Yes []	No []
13	How often do you visit that particular product website?	≥2 times a month []	<2 times a month []
14	You have a favourite social networking website?	Yes []	No []
15	How often do you visit that social networking website?	≥5 times a month []	<5 times a month []

Three categories of websites are given below—product website, service website and social networking website. Kindly give your response on a scale of 1–5, for your most preferred website in each category. For example if your favourite 'product website' is flipkart.com, then mark your response for flipkart.com in product website column against item no. 16 to item no. 48 and if your favourite 'service website' is youtube.com then mark your response for youtube.com in service website column against item no. 16 to item no. 48

Where

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

	Items	Product website	Service website	Social networking website
16	I feel this is a very engaging website			
17	I feel this website will keep my data secure and will not share with anyone else			

Table 12 continued

	Items	Product website	Service website	Social networking website
18	I think many friends around me use this website			
19	The advertisements and promotions that this website sends to me are tailored to my situation			
20	Based on simultaneous considerations of what I give and what I receive, I consider this website to be valuable			
21	My interaction with this website is clear and understandable			
22	I recommend this website to others			
23	A first-time user can locate the items on the website easily			
24	I believe that this website is customized to my needs.			
25	This website does not take much time to meet my demands			
26	I trust the information presented on this website			
27	This website is a user-friendly site			
28	I prefer this website			
29	This website is very convenient to use			
30	This is a dynamic website			
31	This website make recommendations that match my needs			
32	I think most people are using this website			
33	Website quickly responds to user request			
34	This website makes me feel that I am a unique customer			
35	Generally speaking, I think it is a accurate decision to go on to this particular website for my needs and requirements			
36	I think a good number of people is using this website			
37	I get much more than the worth of my time, effort and money			
38	I will use the same website again			
39	I think there will still be many people use this website			
40	After every visit, it makes me feel, it is worth using this website			
41	I feel satisfied of all my experiences on this site			
42	I anticipate many friends will use this website in the future			
43	It is easy to get in touch with the website			
44	I think most of my friends are using this website			
45	Website is always interested in feedback			
46	The products and/or services provided by the website are well priced			
47	I feel wise to use this site			
48	I can trust this website			

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