



Antecedents and consequences of trust in a social media brand: A cross-cultural study of Twitter



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ABSTRACT

This study extends brand relationship theory to the context of the microblogging platform Twitter. The authors investigate the impact of Twitter trust on users' intentions to continue using the platform and to "follow" brands that are hosted on Twitter (the trust transfer phenomenon). They also explore the role of perceived self-Twitter personality match in strengthening trust towards the Twitter brand. A cross-cultural American–Ukrainian sample allows to identify potential culture-based differences in brand personality and brand trust concepts. The results show that the positive effect of trust in Twitter on its users' patronage intentions is robust across two cultures with diverse history and ideology. An important novel finding is the influence of trust in Twitter on patronage intentions towards the businesses hosted on Twitter. However, this relationship reaches statistical significance only in the Ukrainian sample, signaling potential differences in the trust transfer processes in different cultures. The study confirms the role of similarity in personality traits between Twitter users and the Twitter brand in engendering trust in Twitter. The salience of different personality traits in the "personality match – Twitter trust" link for different cultures suggests important implications for global marketers.

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1. Introduction

Broadly defined as web-based platforms that allow users to connect, share and contribute to the collective creation of content that is persistent and visible to all (Bradley, 2010), emergent social media structures include blogs, wikis, and social networks. While different in technical specifications, they uniformly support "public displays of connections" (boyd & Ellison, 2008) and offer exponential spread of content, along with its unprecedented accessibility. These features of social media make it the fastest-growing marketing channel in the world (Coremetrics, 2010). Expenditures on social media marketing in the US are predicted to grow 34% annually and reach \$3.1 billion in 2014 (Forrester Research, 2009). Although calculating the hard return on social media marketing remains a challenge, other indicators of its effectiveness abound. For example, 67% of Twitter users who become followers of a brand report buying that brand's products, 60% of Facebook users who become a fan of a brand are more likely to recommend that brand to a friend, and 74% of consumers' buying decisions are

influenced by the input from fellow social media participants (Business Week, 2009; imoderate.com, 2010).

While social media (SM) and its marketing applications proliferate, developing distinctive strategies for effectively targeting and engaging users on each platform remains a work-in-progress. Differences in audience characteristics (Hughes, Rowe, Batey, & Lee, 2012) may explain motivational, behavioral, and psychological distinctions in SM membership choices, activity levels and continuance intentions. These differences in user characteristics may not only account for users' motivations to join and continue using a particular SM site, but also explain users' intentions to follow businesses and brands "hosted" on this site, and potentially affect purchasing decisions. Therefore, developing an understanding of the role of personality traits in engendering loyalty to a particular SM platform, and users' behaviors towards brands "hosted" on the platform, would contribute towards the nascent theory of on-line consumer behavior and provide strategic insights for marketing managers.

Academic research investigating differences in member motivations, loyalty, and continuance intentions towards each platform is insufficient. The majority of existing studies on determinants of SM participation take a utility-based approach and investigate gratifications obtained (Park, Kee, & Valenzuela, 2009), perceived value, satisfaction, consumer knowledge of alternatives (Gu, Oh, & Wang, 2009), and habit (Barnes & Bohringer, 2011). Others utilize the

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Technology Acceptance Model (Pookulangara & Koesler, 2011) and the Theory of Planned Behavior (Pelling & White, 2009) to explain participation and loyalty of SM users. However, with high information transparency and low barriers to entry in the social media industry, as well as low customer switching costs, new social media that imitate the functionality of existing sites proliferate. This necessitates a closer investigation of the relationship- and brand personality-based competitive advantage.

In this research we utilize the brand relationship theory perspective, which maintains that by acting as identity-expressing symbols, brands acquire stereotypical images and identities (personalities) in consumer minds, which helps position them as social relationship partners (Fournier, 1998). An essential catalyst for establishing and maintaining long-term relationships is brand trust, defined as confidence in the brand's consistency, reliability and honesty (Wang & Emurian, 2005). Trust facilitates customer satisfaction with and commitment to a brand (Chaudhuri & Holbrook, 2001; Morgan & Hunt, 1994), which determine customer intentions to maintain the relationship and may facilitate trust transfer to other closely associated brands (Stewart, 2003).

In this study, we extend the brand relationship theory approach to the context of the microblogging platform Twitter. We contribute to the extant literature by exploring the role of perceived self-brand personality match in strengthening brand trust and by investigating the impact of Twitter trust on both the intentions to continue using the platform and the intentions to follow and purchase other brands that are “hosted” on the Twitter platform (the trust transfer phenomenon). Following calls for internationalizing research, we utilize a cross-cultural sample to identify potential culture-based differences in brand personality and brand trust concepts, and to validate the proposed theoretical links. The data were collected in the US and Ukraine (an emerging economy with 17% internet penetration and 3% Twitter use rates by the adult population). The paper reports the results of the data analysis and concludes with the discussion of the findings and the implications for advertisers, marketing managers, and for future research.

2. Theoretical development and hypotheses

Trust, as an essential element in relationship initiation and maintenance, is a foundational concept of the relationship marketing perspective (Anderson & Narus, 1990; Dwyer, Schurr, & Oh, 1987). In marketing, trust is broadly defined as “a willingness to rely on an exchange partner in whom one has confidence” (Moorman, Deshpande, & Zaltman, 1993). Morgan and Hunt (1994) identified trust and the resulting commitment as key mediators of successful buyer–seller relationships that lead to cooperation and reduce conflict and uncertainty in the business-to-business context. In the end-consumer domain, brand trust represents a manifestation of relationship quality (Crosby, Evans, & Cowles, 1990), is viewed as the essence of brand's value to consumers (Berry, 2000), and is central for engendering brand loyalty (Chaudhuri & Holbrook, 2001). Previous studies found positive effects of trust on the likelihood of continuing a relationship (Crosby et al., 1990), long-term orientation of the trustor (Ganesan, 1994), and consumer intent to make a purchase (Doney & Cannon, 1997).

Trust in the online environment is characterized by greater complexity (e.g. trust in the web site vs. trust in technology), need for structural assurances of security and privacy, and the lack of tangible brand cues. The impersonality, anonymity and automation of electronic transactions and communications make it difficult for consumers to evaluate the trustworthiness of online vendors and other consumers. Yet, trust is critical for both attracting traffic and completing successful online interactions, as well as creating and maintaining online communities and virtual groups

(Coppola, Hiltz, & Rotter, 2004). According to Princeton Survey Research Associates, 94% of Internet users say that being able to trust a site is very or somewhat important for their decision to visit it (PSRA, 2002). Earlier studies in electronic commerce found trust to be strongly related to shopper information disclosure (Metzger, 2004) and purchase intentions (Lumsden & MacKay, 2006). Following several breaches of user privacy and initiatives undertaken by members, similar to the “Students against Facebook Newsfeeds” group and the “quit Facebook” movement (boyd, 2008), the issue of trust has become central to participating in social media. Research studies report that trust is one of the major factors influencing the intensity of networking activity on SM sites (Ulus, Durmus, & Yurtkoru 2011) and the information sharing intensity (Dwyer, Hiltz, & Passerini, 2007). Additionally, privacy-challenging innovations have been found to disrupt users' sense of control (boyd, 2008). Finally, arguments for introducing legal regulations concerning privacy of social networks have been proposed (Hodge, 2006). Since three quarters of global online consumers spend 22% of their online time on SM sites (Nielsen, 2010), understanding whether and how trust in these sites affects users' intentions to continue their membership and to recommend these sites to others is important for marketing researchers and practitioners. Given previous findings of the positive role of brand trust in brand relationship continuation, and the increased importance of trust in the online context, we propose that trust towards a social media brand is an important determinant of users' patronage (continuance and recommendation) intentions towards this social medium:

H1. Trust in a social media site will positively affect intentions to continue using this site and to recommend it to others.

The phenomenon of “transference”, originating from social psychology (Andersen & Baum, 1994; Chen & Andersen, 1999), denotes a pattern of carrying over the effects of past relationships into future relationships, based on the activation of a cognitive schema triggered by a relevant stimulus. In personal relationships, prior cognitive evaluations of (or emotions toward) a significant other were shown to influence future assessments and feelings toward that significant other (Andersen & Baum, 1994). The explanation of this phenomenon lies in the information-processing models of social judgment, whereby people draw upon pre-existing knowledge when attempting to understand others (Fiske & Taylor, 1991) and in the affective stereotyping (Fiske & Pavelchak, 1986) characterizing social cognition. In marketing and advertising, numerous studies documented the transfer of celebrity qualities (trustworthiness, attractiveness, expertise, etc.) and demographics (e.g. sex) to the products advertised (Debevec & Iyer, 1986; Langmeyer & Walker, 1991), as well as the transfer of attitudes towards celebrities to brand attitudes (Ohanian, 1991; Till, 2001). Additionally, in sponsorship and co-branding literatures, symbiotic relationships have been observed with “transference of inherent values” from sponsored activities to sponsors and from one brand to another, constructing co-branded identities (Motion, Leitch, & Brodie, 2003). Other empirical findings showed that affective commitment to a brand “spills over” to complementary brands, brand allies (Ruth & Simonin, 2003), and from offline to online retail brands (Levin, Levin, & Heath, 2003).

Trust transference has also been identified in previous studies. For example, Zaheer, McEvily, and Perrone (1998) found a strong correlation between trust in an organization and trust in an individual within the organization, and Henslin (1968) observed cab drivers' trust in a location influencing their trust in passengers from that location. Milliman and Fugate (1988) found that a salesman can transfer the burden of establishing trust to a “proof source” – the industry association, which offered a verifiable evidence of the salesperson's claim and led to greater intention to buy. In the context of online travel, associating new travel agency

brands with well-known brands increased consumer trust to the unknown brand and intention to purchase (Delgado-Ballester & Hernández-Espallardo, 2008). A study by Stewart (2003) on the role of hyperlinks between familiar and unknown commercial websites found that consumers perceived interaction and similarity between the linked sites, which had a positive impact on the perceived trustworthiness of the unknown site. Lee, Kang, and McKnight (2007) examined trust transfer from an offline to an online setting and found that customer's trust in an offline bank significantly influenced trust in its online banking counterpart. Lu, Yang, Chau, and Cao (2011) found that a customer's established trust in internet payment services influences his or her initial trust in mobile payment services. Finally, by examining the formation of potential customers' online trust of a brick-and-click retailer before they visited its online website, Kuan and Bock (2007) reported that customers' trust in the offline stores significantly affected their trust in the online counterpart.

The notion that Twitter trust spills over on Twitter-hosted brands that are followed by users can be considered from the perspectives of Heider's (1958) cognitive balance theory and Festinger's (1946) theory of cognitive dissonance. According to the balance theory, Twitter members will strive for harmony/balance in their attitudes towards Twitter and the brands they follow on the platform. This means that those who have high trust in Twitter will transfer this perception to the brands they follow on the platform. Similarly, the theory of cognitive dissonance would predict that those who experience a dissonance in their trust toward the Twitter brand and the hosted brands will be motivated to either abandon the platform or disassociate themselves from unreliable brands by not following them on Twitter. Thus, due to these cognitive and social processes, trust in Twitter is expected to transfer to Twitter-hosted brands that are followed by users on the platform.

By establishing brand accounts in SM, companies engage in conversations with existing and potential customers and expose themselves to close scrutiny and viral word-of-mouth. Since trust in SM influences the intensity of networking (Uluslu et al., 2011) and information sharing (Dwyer & Hiltz, 2007), Twitter users who trust Twitter will interact more with the brands hosted on Twitter. These repeated interactions and mutual information disclosure are likely to facilitate the transfer of trust in Twitter to the hosted brands followed by the user (Doney & Cannon, 1997; Strub & Priest, 1976). This transferred trust is hypothesized to impact patronage intentions towards these followed brands (intentions to visit their websites, make purchases, and to recommend them to friends).

H2. Trust in the social media site will positively affect patronage intentions towards the brands the user follows on the site.

Based on the symbolic interactionism perspective (McCracken, 1988) and prior research on consumer propensity to incorporate brands into self-concept construction and expression (Escalas, 2004; Fournier, 1998), prior engagement with the hosted brands that SM members follow on the site should be a factor determining intentions to make purchases from these brands' websites and recommend them to others. For example, it has been shown that the intensity of "brand engagement in self-concept" (BESC) leads to greater awareness and recall of those brands, as well as higher preference and loyalty to them (Spratt, Czellar, & Spangenberg, 2009). It has been further argued that higher levels of BESC lead to better attention to brand stimuli in the environment (Spratt et al., 2009), which may provide those brands a competitive edge in the cluttered SM environment.

H3. Brand engagement with brands that are followed on the social media site will positively affect users' patronage intentions towards these brands.

According to the social identity theory (Festinger, 1954; Tajfel & Turner, 1986), similar attitudes, personality traits, background, and perceptions about life invoke cultural stereotypes and lead to categorizing people into social "in-groups". The marketing literature on source similarity has supported this theory by numerous research findings showing that the buyer is more strongly influenced by a seller with whom he/she shares certain attributes (Byrne, 1962; Byrne, Griffitt, & Stefaniak, 1967; Dion, Easterling, & Miller, 1995; Stotland, Zander, & Natsoulas, 1961; Taylor & Woodside, 1982). The social response theory (Moon, 2000, 2003; Reeves & Nass, 1996) posits that people apply social rules in communicating with humanlike virtual entities, with several studies confirming that consumers exhibit preferences to interact with computers possessing similar personalities, and are more satisfied with such interactions (Nass, Moon, Fogg, Reeves, & Dryer, 1995). In the e-commerce context, it has been shown that an avatar's (virtual sales representative's) internal similarity to the buyer positively affects purchase intentions (Pentina & Taylor, 2010). It is possible that SM users also take perceived similarity into account when making a decision to trust, join, and continue using an SM site. Understanding users' perceptions of SM brand identities and their assessments of how strongly these sites match and reflect their own identities may be important for creating new and unique SM brands that can be trusted, and for uniquely utilizing SM sites for marketing.

Research on consumer relationships with brands has shown that brands are increasingly anthropomorphized and perceived as social entities by consumers. For example, Aaker (1997) showed that consumers ascribe human personality qualities to brands, and Fournier (1998) identified existence and developmental stages of interpersonal relationships consumers develop with brands. In the online context, brands have been proposed to represent instances of socially constructed identities, created by both marketers and consumers (Muniz & O'Guinn, 2001), that reflect characteristics associated with the typical user, as well as with advertising images and associations (Poddar, Donthu, & Wei, 2009). Consistent with this, attempts have been made to describe online brand personalities (Okazaki, 2006), e-brand personalities (Park, Choi, & Kim, 2005), and website personalities (Chen & Rodgers, 2006) using both pre-existing personality scales and lists of adjectives derived from qualitative research. The role of website personality in eliciting visitors' trust has been studied by Tan and Sutherland (2004) who found that extroversion and openness to experience lead to a higher disposition to trust, while neuroticism and conscientiousness negatively affect the disposition to trust. However, all prior studies mainly focused on mechanisms of creating different personality dimensions using various web design and interactive tools. Only one study to date has attempted to introduce the Perceived Social Network Site Personality construct and found that it differentially affects the members' activity level and their attitudes towards marketing messages on the site (Wehrli, 2008). A few attempts have also been made to evaluate the role of social media users' personality traits in their preference for social media sites, and in the preferred uses (social vs. informational) of these sites (Hughes et al., 2012). However, no research to date has investigated the role of personality match (similarity) between the social media site and its members in engendering members' trust.

For the purposes of this study, we define brand personality of a social media site as a combination of human personality traits associated with a particular social media site brand (Aaker, 1997; Azoulay & Kapferer, 2003). By facilitating human interactions, social media sites possess the important relational attribute of reciprocity (Fournier, 1998), which renders them the legitimacy of social agents and human-like identities. Earlier research has shown that symbolic meaning of brands reflects attributes associated with

groups using the brand and is used to help enhance self-concept through brand adoption (McCracken, 1988). It can be inferred that an SM brand should reflect attributes generally ascribed to its members, as well as the online activities they engage in, and therefore would engender trust from those individuals who associate themselves with this in-group. Perceived personal similarity was earlier shown to positively affect trust between interviewers and applicants (Gallois, Callan, & Palmer, 1992), franchisees and suppliers (Nicholson, Compeau, & Sethi, 2001), and buyers and sellers (Doney & Cannon, 1997). By joining a particular SM site, its members may perceive its brand identity as similar and more easily identify with it, which should lead to greater brand trust. Therefore, based on the Social Identity (Tajfel & Turner, 1986) and Social Response (Moon, 2000, 2003) theories, perceived self-brand personality match may have an effect on the trust, which individuals have in an SM brand (Escalas & Bettman, 2005):

H4. Perceived personality match with a social media site will be positively related to trust in the site.

Defined as “shared perceptions of the social environment” (Triandis, 1972), culture incorporates language, art, customs, habits, knowledge, morals, and beliefs acquired by a person in the process of socialization (Tylor, 1958). It affects information processing and evaluation and has an influence on each individual's self-construal and group identification (Markus & Kitayama, 1991). It also has an impact on the mechanism of cognitive stereotyping that leads to classification and evaluation of self and others in terms of personality traits and similarity, shaping the attitudes and behaviors towards relationship development and maintenance. Although prior research has not found any differences in the strength of trust-commitment relationship between Type 1 (individualistic, small power distance, weak uncertainty avoidance) and Type 2 (collectivistic, large power distance, strong uncertainty avoidance) cultures, several studies identified differences in trust antecedents among cultures (Kim, 2005; Pavlou & Chai, 2002). Dominated by the Russian communal culture through the 17–19th centuries and by the Soviet ideology for a large part of the 20th century, Ukrainian population has distinctive preferences for the personality traits desirable in a relationship partner (Badan, 2011). According to Katz (2008), Ukrainians are “generally serious people who rarely smile and may seem stern.” They appreciate sincerity, firmness and dependability in their relationship counterparts. For them, relationship building is a slow process and patience is of critical importance (Katz, 2008). Based on this, the personality traits Ukrainians would prefer in their relationship partner for greater trust and relationship continuation should differ from those preferred in the US (Robins, Caspi, & Moffitt, 2000).

H5. Different traits will be salient in personality match affecting trust in a social media brand in Ukraine and the US.

3. Method

3.1. Context

Born in 2006 as a side project and spun off into a different company in 2007, Twitter was an unusual entrant on the social media scene. Although similar to other Web 2.0 phenomena in terms of growth (currently 500 million registered users; TechCrunch, 2012), the micro-blogging site holds a distinct status by allowing members to follow anyone without being followed back and limiting all posts to 140 characters. The fact that only 16% of adult SM participants are registered on Twitter (compared to the 66% who have a Facebook profile) and the distinctive Twitter demographics (higher income and education levels compared to other SM) (Pew

Internet, 2012) suggest that Twitter may project a unique brand personality that appeals only to certain types of users (representing a niche brand). These features make Twitter an appropriate context for testing the proposed brand relationships. Additionally, with the recent adoption of the “Do Not Track” feature, Twitter commands higher levels of user trust compared to other social media (Bilton, 2012), which may permit more accurate identification of Twitter trust antecedents and consequences.

Although internet penetration in the developing countries still lags behind, its rate of growth, as well as the growth rate of social media use, far exceeds those of the developed world (The Economist, 2011). Ukraine, boasting a high level of education and literacy and classified as an emerging market by the World Trade Organization, the United Nations, and the World Bank, is representative of other former Soviet countries in economic transition. With the GDP per capita estimated at \$7,200 and the human development index of 0.729 in 2011, Ukraine is undergoing a prolonged complex transition to a free-market, consumption-based economic model. Its emerging middle class exhibits great interest and involvement with the Internet as both informational and commercial communication channel. Therefore, understanding the principles of social media consumption can both assist marketing managers in developing strategies and provide insights into the potential role of culture in brand relationship development.

3.2. Sample and procedure

Data were collected in the US and Ukraine via an online survey. All questions were translated and back-translated from Ukrainian to English by two bilingual authors to avoid language-related errors in the analysis. In the US, the link to the survey was distributed by two Twitter members (with 14,000 followers combined) to their followers with a request to complete the questionnaire. The respondents were also encouraged to forward the survey link to their followers. As a result of utilizing this snowball technique, appropriate for the exploratory stage of research, 184 completed responses were collected. The average age of respondents was 40, with 62% female and 85% having completed college. These demographics reflect the profile of Twitter members with an average age of over 35; 53% female, and household income of over \$60,000 (Cheng & Evans, 2009). In Ukraine, the link was distributed by six established Twitter members (with 15,000 followers combined) to their followers with a request to complete the questionnaire and then forward it to their followers. The link was also posted in online forums of the Ukrainian Twitter Community. The Ukrainian sample ($n = 125$) was 55% male, with an average age of 28 years old, and with 89% of respondents having at least a bachelor's degree. These demographics correspond to the profile of Twitter members in Ukraine constructed by Universal McCann Wave5 and GfK Ukraine, with 87% between 16 and 34 years of age, and 61% male (Universal McCann Wave5, 2011). The established Twitter members selected for survey dissemination were determined based on their diversified occupations, gender, age, and the consistency between these characteristics and each country's Twitter user profile. The characteristics of the established Twitter users in Ukraine and the US are provided in Table 1.

3.3. Measures

All constructs were measure using established scales. Trust in Twitter was measured by the Dwyer and Hiltz (2007) scale, Engagement with other Brands – by the Sprout et al. (2009) scale. The outcome variables of patronage behavioral intentions regarding Twitter and other brands were adopted from Dwyer et al. (2007) and Sprout et al. (2009), respectively. While past research indicates that consumers ascribe human-like personality characteristics to a

Table 1
Profiles of Twitter users who distributed the survey.

Occupation	Country	Age	Gender	Number of followers
IT entrepreneur, internet-marketing consultant	Ukraine	31	M	3650
IT society organizer and leader	Ukraine	34	M	3500
Lecturer and business consultant	Ukraine	42	M	550
Business events organizer	Ukraine	37	M	1900
PR consultant	Ukraine	32	F	2800
Fashion and show-biz blogger	Ukraine	28	F	2600
Social media consultant	US	52	F	5500
IT blogger	US	38	M	8500

wide variety of brands, including retail stores and services (d'Astous and Lévesque, 2003), no universally accepted metrics or scales to measure these characteristics exist. Numerous studies utilize context-specific brand personality measurements stemming from the Five Factor Model (Goldberg, 1993) or the five empirically derived brand personality dimensions of sincerity, excitement, competence, sophistication, and ruggedness (Aaker, 1997). For the purposes of this research, the 10-item personality inventory (TIPI, Gosling, Rentfrow, & Swann, 2003) has been utilized. This choice was made due to the highly social nature of the brand under consideration that most likely would have a personality consistent with that of humans and because prior research on social networks personality confirmed its relevance (Wehrli, 2008). Additionally, the Big Five personality dimensional structure has been found highly replicable across cultures (Schmitt, Allik, McCrae, & Benet-Martínez, 2007), which favored its use in this research for both samples. The independent variable Perceived Personality Match was calculated as a squared distance between the respondents' evaluations of their own personality scores and the Twitter personality scores (with the opposite sign) (Parker, 2009). All items with their descriptive statistics are presented in the Appendix.

4. Results

Partial Least Squares (PLS), specifically SmartPLS 2.0 (Ringle, Wende, & Will, 2005), was used to assess the psychometric properties of the measurement model and to test the hypotheses. Our proposed model (Fig. 1) contains latent constructs with attitude measurement items (both formative and reflective) to explain the antecedents and consequences of user trust in an SM brand. Such measures are rarely normally distributed (Peterson & Wilson, 1992) and do not meet the multivariate normality assumptions required by the alternative covariance-based structural equation modeling method (Fornell & Bookstein, 1982). Chin, Peterson, and Brown (2008) advocate the use of PLS path modeling when researchers have to estimate a complex model capturing attitudes

and behaviors using relatively small sample, such as ours. Covariance-based structural equation models are full information procedures that are less appropriate for early stages of theoretical development because even one wrongly specified structural path or one construct with weak measures will affect all other estimates throughout the covariance-based structural equation model (Chin et al., 2008). PLS path modeling, being a component-based least squares alternative, is more robust to these issues.

Composite reliability scores (ranging from 0.89 to 0.97) confirmed scale reliability and the internal consistency of the constructs in both samples (Gefen, Straub, & Boudreau, 2000). Since the measure of Personality (Mis)Match is formative, we report the reliability measures for trust, brand engagement and patronage behavioral intentions (Table 2). Consistent with the guidelines of Fornell and Larcker (1981), the average variances extracted (AVEs) are all above 0.70. Convergent and discriminant validity of the three constructs were assessed by two criteria: (1) each item should have a higher loading on its hypothesized construct than on other constructs and (2) the square root of each construct's average variance explained should be higher than its correlation with other constructs. All items loaded highly on their corresponding construct with low cross loadings. Then we compared the square root of the AVE of a construct with its correlations. As Table 2 indicates, the AVE's square root is greater than the cross-correlations among the constructs.

The measurement of the structural model was estimated using the PLS approach. First, the overall structural model containing both sub-samples was tested, followed by separate tests of the US and Ukrainian data. The results of the model estimation for the combined data, including the standardized path coefficients, significance of the paths based on two-tailed *t*-test, and the amount of variance explained, are presented in Fig. 1. Hypotheses H1, H2, H3 and H4 were supported. Trust in Twitter is significantly related to patronage intentions towards the site ($\beta = 0.63$, $p < 0.01$), accounting for 40% of the variance. Similarly, the effects of trust in Twitter ($\beta = 0.21$, $p < 0.01$) and brand engagement with businesses

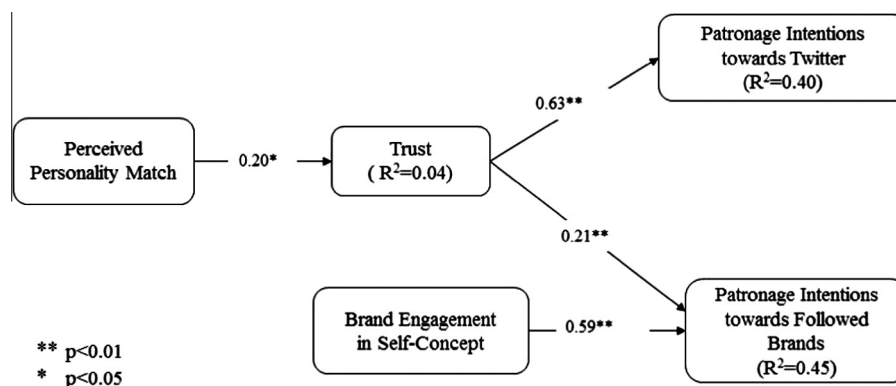


Fig. 1. Structural model testing results for combined data.

Table 2

Composite reliability, AVEs and construct correlations US and Ukraine.

	Composite					
	Reliability	AVE	1	2	3	4
<i>US sample</i>						
1. Trust	0.89	0.74	0.86			
2. Brand engagement in self concept	0.98	0.88	0.17	0.94		
3. Patronage intentions towards Twitter	0.96	0.93	0.33*	0.76**	0.96	
4. Patronage intentions towards followed brands	0.97	0.92	0.21	0.79**	0.22	0.96
<i>Ukrainian sample</i>						
1. Trust	0.92	0.79	0.89			
2. Brand engagement in self concept	0.95	0.76	0.32*	0.88		
3. Patronage intentions towards Twitter	0.96	0.92	0.62**	0.28*	0.96	
4. Patronage intentions towards followed brands	0.93	0.76	0.48**	0.48**	0.55**	0.87

The bold values are the square root of AVE. The significance level for each correlation is added.

* $p < 0.05$.** $p < 0.01$.

followed by respondents on the SM site ($\beta = 0.59$, $p < 0.01$) on the intentions to patronize these businesses (H2 and H3) were supported. Trust and brand engagement together explain 45% of the variance of the behavioral intentions towards followed brands. Finally, personality match is significantly related to trust ($\beta = 0.20$, $p < 0.05$), in support of H4.

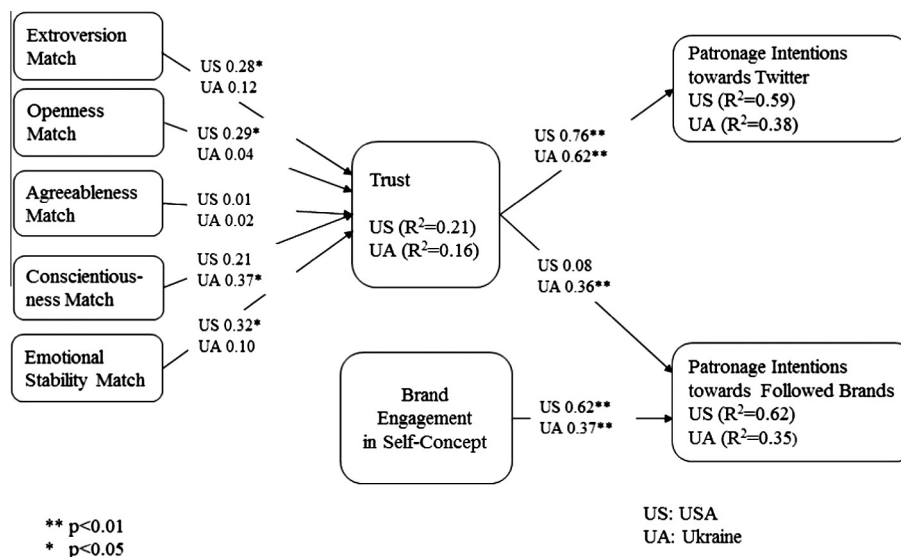
To test Hypothesis 5, we examined separate roles of matching personality traits that affect trust in Twitter for each sub-sample (Fig. 2). US respondents who perceived Twitter similar to them in Extroversion ($\beta = 0.28$, $p < 0.05$), Openness to New Experiences ($\beta = 0.29$, $p < 0.05$) and Emotional Stability ($\beta = 0.32$, $p < 0.05$) indicated greater trust towards Twitter. For Ukrainian respondents, only the match in Conscientiousness ($\beta = 0.37$, $p < 0.05$) is significantly related to trust, supporting H5.

5. Discussion and implications

The results confirm the important role of brand trust in the context of social media by supporting positive effects of trust in Twitter on its members' intentions to continue using the social network platform in the future and to recommend the platform to their friends. This finding supports the culturally-invariant role of trust in engendering commitment and loyalty identified in previous research (Pavlou & Chai, 2002). An important finding that trust in

Twitter is positively correlated with patronage intentions towards the hosted brands that are followed by Twitter users was statistically significant only in the Ukrainian sample. This result may signal the existence of differences in the trust transfer processes in different cultures. A potential explanation could be the high-context character of the Ukrainian culture, whereas persons and contexts contain meanings that are not explicitly conveyed in messages, which tend to be implicit and indirect (Gudykunst et al., 1996). Therefore, Ukrainian Twitter users may look more intently for meanings, and attribute the connections between Twitter and the hosted brands more readily. As a result, they would transfer their trust in Twitter to the brands they follow on Twitter more willingly than American Twitter users who, as representatives of low-context culture, would not immediately associate presence on the platform with similarity to it without a more explicit and direct connection present.

Our findings confirm the relationship of prior engagement with hosted brands with behavioral intentions towards those hosted brands (visiting their websites, making purchases and recommending them to others) for both cultures. This suggests that social media sites and companies that are hosted on these sites might benefit from designing and implementing different relationship building strategies in different cultures. In particular, it appears that mere presence on a social platform may render advantages to companies in high-context cultures if platform users

**Fig. 2.** Structural model testing results with all five personality match variables.

have trust in the platform. On the contrary, mere presence on a trusted social media platform is not sufficient for businesses to obtain customer patronage in low-context cultures, and other engagement techniques should be employed. In fact, a recent report notes that 64% of Twitter users are more likely to make a purchase from a brand that answers their tweeted questions and pays attention to their comments (eMarketer, 2011).

Our results also suggest that similarity in personality characteristics is positively related to trust, extending the existing findings on the role of perceived source similarity in persuasion, sales outcomes, and relationship quality Pentina & Taylor, 2010; Smith, 1998) to the context of social media. Interestingly, and in support of our hypothesis, a match in different personality traits is important for trust development in different cultures. The US respondents who perceived Twitter to be similar to themselves in Extroversion, Openness to New Experiences, and Emotional Stability exhibited greater trust in Twitter than those who considered Twitter similar to them in Agreeableness and Conscientiousness or did not perceive any similarity with Twitter's personality. Ukrainian respondents considered match in Conscientiousness to be the only personality-related similarity that increased their trust in Twitter. This finding may be indicative of different values assigned by different cultures to personality traits in the relationship-building processes, as well as of the different functions the Twitter platform may perform in Ukraine and the US.

Media reports show that Ukrainian Twitter users utilize the platform to a large extent for the purposes of obtaining objective information and news (as opposed to “paid” news and propaganda), and for professional goals of promoting their businesses and following industry trends. For example, the majority of the 25 most popular hashtags in the past 6 months relate to the world and Ukrainian news (#ukraine, #news, #ua, #us, #kiev) (Watcher, 2012). American participants, on the other hand, may use Twitter more for socializing and congregating with like-minded others. According to Pew Internet report, 72% of US Twitter users post updates related to their personal life, activities or interests, with one in five (19%) doing it at least once a day. Additionally, 62% of American Twitter users post updates related to their work life, activities or interests, with 12% doing so on a daily basis, and only 55% of Twitter users share links to news stories, with 12% doing this at least once a day (Smith & Rainie, 2010).

Previous research in the US context recognizes that both Extroversion and Openness to New Experiences predispose people to socialize, with Extroversion considered critical in new tie formation (Wehrli, 2008) that mainly characterizes Twitter use. Prior studies also report negative relationship between Conscientiousness and using Twitter for socialization purposes (Hughes et al., 2012), providing tentative support for the function-related explanation of the observed differences. Although no prior cross-cultural studies exist on the role of personality match in trust formation, we speculate that the traditionally introverted communication patterns and the high-context culture (Podolyan, 2005) may determine the lower importance of personality match in Extroversion and Openness to New Experiences for Twitter trust development. Mean responses to the Big Five scale reveal that Ukrainians characterize their extroversion (4.78 out of 7) and openness (5.3 out of 7) significantly lower than Americans (5.09 and 5.85 respectively), and consider themselves more neurotic (3.99 vs. 2.87 for the US sample). While both Ukrainians and Americans evaluate their conscientiousness rather highly (5.64 and 5.35), Ukrainian respondents also believe Twitter to be more dependable and self-disciplined (4.53 out of 7) than do American Twitter users (3.06 out of 7). These numbers may support the culture and values-based explanation of differences in matching traits leading to greater trust. Thus, it is possible that both cultural and functional explanations combine to explain the findings.

Our findings suggest that in order to increase membership and stimulate desirable consumer behaviors, social media sites could attune their brand identities to those of their participants in order to facilitate formation of stronger relationships. This may involve voluntarily limiting target segments of potential users by projecting a more narrowly defined and specific image to attract customer segments with certain personality traits, as well as from different countries. The study also indicates that strategically, advertisers should utilize different approaches depending on the site's projected personality characteristics, the degree of user's trust in the site, and the cultural context. For example, it appears that to attract and form relationships with users who are Extroverted and Open to New Experiences in a low-context culture, advertisers should intensify brand engagement, such as soliciting and responding to questions, inviting participation in community involvement and new product development. It may be sufficient to just be present on a platform to earn trust by association in high-context cultures.

6. Conclusion and future research

As social media are acquiring greater importance for global marketing and advertising (both on the Internet and via mobile networks), understanding the mechanisms of users' relationship formation with the social media brands becomes imperative for managers and scholars. As an essential element of relationship initiation and maintenance, trust has been shown to play a role in engendering commitment and loyalty and, as a result, reducing relationship maintenance costs (Chaudhuri & Holbrook, 2001; Crosby et al., 1990). This study extends our understanding of the role of trust in a social media brand by confirming its positive relationship with the users' intentions to continue using the site and to recommend it to others. Notably, the positive effect of trust in Twitter on its users' patronage intentions is robust, manifesting in the context of different cultures, with diverse history and ideology. Given Twitter's greater potential for user anonymity (due to absence of the requirement for reciprocal following), it is possible that the role of trust in the social media sites with greater expectations of personal information disclosure will be even higher. Therefore, an obvious suggestion for future research would be to evaluate the importance of trust for patronage intentions and behaviors in other social media.

An important novel finding is the relationship of trust in the social media brand with patronage intentions towards the businesses hosted on the social media platform and followed by the SM users. While this relationship is not universal (it lacks statistical significance in the US sample), the possibility of trust transfer in the context of social media is certainly a fruitful area for future investigation. Further, hypothesizing and testing the role of culture in online users' associative attributions also presents an interest for developing theories in the nascent area of online consumer behavior.

An important contribution of this research to the existing marketing literature is confirming the role of similarity in personality traits between social media users and the social media brand for developing trust in the SM brand. Previous studies utilizing personality characteristics as antecedents to their social media choices, activity patterns, and preferred functional uses, reported inconsistent and contradictory findings (Hughes et al., 2012). The finding that customers trust SM brands that are similar to them in particular characteristics may help explain the emotional connection that forms between brands and consumers. This approach paves the way to more nuanced and contingency-based research in the relationship marketing area. Finally, the salience of different personality traits in the “personality match – brand trust” link for different cultures presents a promising potential for studying the role of culture manifestation at the individual customer level.

Some limitations of this study warrant caution in generalizing our results to broader populations. The method of snowball sampling could have introduced selection bias in the data collection. Random sampling in subsequent studies is recommended to reduce the impact of such bias. Another limitation was the method of aggregating multiple hosted brands/businesses for one of our dependent variables (intention to visit hosted brand's website, intention to make a purchase, and intention to recommend to friends). Future research should consider conducting the analysis at the individual hosted brand/business level – a method

adjustment that would require a larger sample size. Another limitation that should be addressed by future research is lack of separation between the familiar hosted brands and those brands that were newly introduced to consumers on the social media platform. Despite the above limitations, this pioneering study makes an important contribution to the social media marketing literature by bringing together and identifying the links between self-brand personality match, brand trust, and patronage intentions towards both the SM brand and the businesses hosted and followed on the platform in the cross-cultural comparison of Twitter users.

Appendix A. Measurement scales and descriptive statistics

Variable				US sample		Ukrainian sample		t Test		
				M	SD	M	SD			
<i>Trust^a</i>										
Do you-trust this social network?				3.61	0.89	3.70	1.09		(0.54)	
Do you-rely on this social network?				3.57	1.10	3.44	1.19		(0.66)	
Do you-believe this social network is honest?				3.55	0.80	3.56	0.99		(0.04)	
<i>Brand engament^a</i>										
I consider these brands to be part of myself.				3.14	1.59	2.12	1.18		4.22**	
I often feel a personal connection between these brands and				3.56	1.63	2.23	1.25		5.33**	
Part of me is defined by these brands.				3.05	1.50	2.34	1.30		2.94**	
I can identify with these brands.				4.29	1.83	2.19	1.22		7.90**	
There are links between these brands and how I view myself				3.47	1.69	2.42	1.29		4.09**	
These brands are an important indication of who I am.				3.03	1.59	2.26	1.21		3.21**	
<i>Personality (Subjects' personality and Twitter Personality)^b</i>										
Extroverted and enthusiastic	5.09	6.12	1.63	1.28	4.78	5.56	1.19	1.34	1.31	2.56**
Critical and quarrelsome	3.18	4.06	1.56	1.87	4.30	4.48	1.19	1.46	(4.90)*	(1.52)
Dependable and self-disciplined	5.35	3.06	1.19	1.63	5.64	4.53	1.01	1.31	(1.58)	(6.00)**
Anxious and easily upset	2.87	3.66	1.52	1.84	3.99	3.69	1.52	1.52	(4.45)*	(0.12)
Open to new experiences and complex	5.85	5.84	1.18	1.29	5.30	4.58	0.94	0.95	3.12**	6.76
Reserved and quiet	3.10	1.93	1.66	1.36	4.33	3.14	1.31	1.55	(4.98)*	(5.00)**
Sympathetic and warm	5.41	3.93	1.42	1.68	5.28	4.31	1.20	1.53	0.61	(1.45)
Disorganized and careless	2.76	4.01	1.66	1.83	2.92	3.92	1.31	1.23	(0.61)	0.39
Calm and emotionally stable	4.97	3.09	1.35	1.48	4.66	3.87	1.44	1.30	1.33	(3.38)**
Conventional and uncreative	2.13	2.29	1.41	1.66	3.28	2.97	1.20	1.41	(5.29)*	(2.67)**
<i>Patronage intentions towards Twitter^c</i>										
Do you intend to continue using Twitter in the future?				1.43	0.82		1.77		1.16	(1.97)
Do you intend to recommend Twitter to your friends?				1.78	1.04		2.06		1.24	(2.01)*
<i>Patronage intention towards followed brands (How likely are you to.)^d</i>										
Visit the website for the businesses/brands you followed on 1				5.1	1.72		5.3		1.68	(0.02)
Make online purchases from these sites?				4.48	1.97		4.09		1.92	1.15
Recommend these brands to friends or acquaintances?				4.83	1.77		4.72		1.76	0.38

* $p < 0.05$.

** $p < 0.01$.

^a Anchored by (1 = "strongly disagree" and 5 = "strongly agree").

^b Anchored by (1 = "Extremely non-characteristic" and 7 = "extremely characteristic").

^c Anchored by (Indefinitely yes" and 5 = "definitely not") scale is reverse coded.

^d Anchored by (1 = "very unlikely" and 7 = "very likely").

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