A review of literature on consumers’ online purchase intentions1

Ezgi Akar, Bogazici University, Turkey*
V. Aslihan Nasir, Bogazici University, Turkey

Abstract Nowadays, the rapid development of the Internet and its effect on daily life has introduced a new consumer profile which is referred to as the ‘online consumer’. Such consumers are affected by different factors and they have different purchasing habits with respect to traditional consumers. The main goal of this paper is to depict the factors that have an impact on consumers’ online purchase intentions through an in-depth analysis of the relevant literature. After an extensive literature review, 100 relevant articles are identified. The factors influencing consumers’ online purchase intentions, which have been examined in these selected articles, are classified according to their similarities, and grouped under relevant categories. The study results reveal that while most of the studies focus on the impact of consumer characteristics, and merchant and product characteristics on online purchase intention, the impact of social media is generally underestimated in the literature. This can be attributed to the fact that this is a recently emerged research area. The originality of our paper stems from highlighting a future research agenda for consumers’ online purchase intentions.

Keywords Online consumer, Consumer behaviour, Purchase intention, Online shopping

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*Correspondence details and biographies for the authors are located at the end of the article.
INTRODUCTION

The Internet and the rapid development of technology reveal a new global market where time and space barriers do not exist (Racolta-Paina & Luca, 2010). Additionally, these advancements lead to the emergence of a new consumer profile called the ‘online consumer’ (Racolta-Paina & Luca, 2010). These consumers play an important role in the e-commerce world and they have different purchasing habits compared with traditional consumers. Companies must pay attention to online consumers’ needs, habits, lifestyles and characteristics to satisfy them in a more global, competitive and dynamic environment. Due to its characteristics (e.g., having neither time nor location constraints), utilising the web as a sales channel is key to reaching different, wide, and global markets (Peterson, Balasubramanian, & Bronnenberg, 1997). In order to satisfy online consumers’ needs and to be an important player in such a global and competitive market, companies should understand consumers’ characteristics, their online purchase intentions and online behaviours.

The objectives of this study are listed as follows: (1) identification of the factors that have an effect on online consumers’ purchase intentions and consumer behaviour based on past studies in the literature, (2) categorisation of these factors in order to have a comprehensive framework for consumers’ online purchase intentions, and (3) detection of further research areas on this topic.

RESEARCH BASED ON LITERATURE

In order to identify relevant studies, an electronic search was conducted and a number of index databases of academic journals were searched. Then, titles and abstracts of the studies were reviewed to identify more appropriate and relevant articles in the field. Databases that were included in our meta-analysis were ABI/INFORM Complete, Ebscohost, and Emerald. Keywords and phrases used in the literature review were online shopping, internet shopping, online consumer, online purchasing behaviour, online buying behaviour, online consumer behaviour, and e-consumer behaviour. The most relevant 100 articles were identified from 2000 to December 2014.

The articles are limited to those using an empirical research method, and they mainly investigated online shopping, purchasing intention, attitude, adoption or use. Hence, conceptual papers and articles using other types of research methods are out of the scope of this study.

LITERATURE REVIEW AND CLASSIFICATION OF FACTORS

According to literature analysis results, many independent variables are identified. While some of the independent variables cited in Table 1 pertain to only one article, other independent variables appear in multiple articles. All variables are classified according to their similarities. Some of the main categories (i.e., consumer characteristics, website characteristics, and characteristics of web-as-a-sales-channel) in Figure 1 are adapted from the literature (Chang, Cheung, & Lai, 2005). However, all sub-categories and remaining main categories are developed according to the
TABLE 1 Summary of the factors that have impact on online purchase intention

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<thead>
<tr>
<th>Independent variables</th>
<th>Studies</th>
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<td><strong>Consumer characteristics</strong></td>
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<tr>
<td><strong>Demographic variables</strong></td>
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<tr>
<td>Gender</td>
<td>Alreck &amp; Settle, 2002; Boyle &amp; Ruppel, 2006; Calik &amp; Ersoy, 2008; Chen &amp; Lee, 2005; Clemes et al., 2014; Doolin et al., 2005; ElAnsary &amp; Roushdy, 2013; Fan &amp; Miao, 2012; Girard &amp; Silverblatt, 2003; Gong &amp; Maddox, 2011; Koyuncu &amp; Lien, 2003; Lian &amp; Yen, 2014; Rodgers &amp; Harris, 2003; Saprikis, 2013; Stafford et al., 2004; Thamizhvanan &amp; Xavier, 2013; Vaidehi, 2014; Van Slyke et al., 2002; Wang et al., 2010</td>
<td>19</td>
<td>Significant impact (except Wang et al., 2010)</td>
</tr>
<tr>
<td>Purchase experience</td>
<td>Bhatnagar et al., 2000; Cho, 2004; ElAnsary &amp; Roushdy, 2013; Calik &amp; Ersoy, 2008; Citrin et al., 2000; Da et al., 2014; Doolin et al., 2005; Gong &amp; Maddox, 2011; Koyuncu &amp; Lien, 2003; Kuhlmeier &amp; Knight, 2005; Liao &amp; Cheung, 2001; Nysveen &amp; Pedersen, 2004; Park &amp; Jun, 2003; Punj, 2011; Saprikis, 2013; Van Slyke et al., 2002; Wang et al., 2010</td>
<td>17</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Age</td>
<td>Bhatnagar et al., 2000; ElAnsary &amp; Roushdy, 2013; Calik &amp; Ersoy, 2008; Clemes et al., 2014; Doolin et al., 2005; Gong &amp; Maddox, 2011; Hernandez et al., 2011; Koyuncu &amp; Lien, 2003; Lian &amp; Yen, 2014; Punj, 2011; Stafford et al., 2004; Thamizhvanan &amp; Xavier, 2013; Van Slyke et al., 2002</td>
<td>13</td>
<td>Significant impact (except Doolin et al., 2005; Thamizhvanan &amp; Xavier, 2013; Van Slyke et al., 2002)</td>
</tr>
<tr>
<td>Education</td>
<td>ElAnsary &amp; Roushdy, 2013; Calik &amp; Ersoy, 2008; Clemes et al., 2014; Girard &amp; Silverblatt, 2003; Gong &amp; Maddox, 2011; Koyuncu &amp; Lien, 2003; Punj, 2011; Saprikis, 2013; Thamizhvanan &amp; Xavier, 2013</td>
<td>9</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Income</td>
<td>Calik &amp; Ersoy, 2008; Clemes et al., 2014; Doolin et al., 2005; Girard &amp; Silverblatt, 2003; Gong &amp; Maddox, 2011; Hernandez et al., 2011; Koyuncu &amp; Lien, 2003; Punj, 2011; Susskind, 2004</td>
<td>9</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Culture</td>
<td>Chau et al., 2002; Koyuncu &amp; Lien, 2003; O’Keefe et al., 2000; Park &amp; Jun, 2003; Rodgers &amp; Harris, 2003; Shiu &amp; Dawson, 2002; Stafford et al., 2004</td>
<td>7</td>
<td>Significant impact (except Koyuncu &amp; Lien, 2003)</td>
</tr>
<tr>
<td>Occupation</td>
<td>Calik &amp; Ersoy, 2008; Chen &amp; Lee, 2005; Clemes et al., 2014; Girard &amp; Silverblatt, 2003</td>
<td>4</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Marital status</td>
<td>Clemes et al., 2014; Gong &amp; Maddox, 2011; Koyuncu &amp; Lien, 2003</td>
<td>3</td>
<td>Significant impact (except Koyuncu &amp; Lien, 2003)</td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Studies</th>
<th>Freq.</th>
<th>Summary of findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit card usage</td>
<td>Thamizhvanan &amp; Xavier, 2013; Van Slyke et al., 2002</td>
<td>2</td>
<td>Significant impact (partially Thamizhvanan &amp; Xavier, 2013)</td>
</tr>
<tr>
<td>Residential area</td>
<td>Doolin et al., 2005</td>
<td>1</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Direct shopping</td>
<td>Doolin et al., 2005</td>
<td>1</td>
<td>Significant impact</td>
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<tr>
<td>experience</td>
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<tr>
<td>Race</td>
<td>Koyuncu &amp; Lien, 2003</td>
<td>1</td>
<td>No significant impact</td>
</tr>
<tr>
<td>Sexual preference</td>
<td>Koyuncu &amp; Lien, 2003</td>
<td>1</td>
<td>Significant impact</td>
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<tr>
<td>General variables</td>
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<tr>
<td>Attitude</td>
<td>Al-Nasser et al., 2014; Bianchi &amp; Andrews, 2012; Çelik &amp; Yılmaz, 2011; Chu, 2008; El Ansary &amp; Roushdy, 2013; Hsu &amp; Bayarsaikhan, 2012; Laohapensang, 2009; Limayem et al., 2000; Ling et al., 2011; Mazaheri et al., 2012; Wang et al., 2007; Yörük, Dündar, Moga, &amp; Neculita, 2011; Yu &amp; Wu, 2007</td>
<td>13</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Subjective norms</td>
<td>Bonera, 2011; Clemes et al., 2014; Foucault &amp; Scheufele, 2002; Laohapensang, 2009; Leerapong &amp; Mardjo, 2013; Limayem et al., 2000; Wang et al., 2007; Yu &amp; Wu, 2007; Zhang et al., 2006</td>
<td>9</td>
<td>Significant positive impact (except Wang et al., 2007)</td>
</tr>
<tr>
<td>Personal Innovativeness</td>
<td>Boyle &amp; Ruppel, 2006; Citrin et al., 2000; Goldsmith, 2001, 2002; Hsu &amp; Bayarsaikhan, 2012; Limayem et al., 2000; Sin &amp; Tse, 2002; Wang et al., 2010</td>
<td>8</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Cho, 2004; Foucault &amp; Scheufele, 2002; Hackman et al., 2006; Kim &amp; Lennon, 2010</td>
<td>4</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Perceived self-</td>
<td>Bonera, 2011; Boyle &amp; Ruppel, 2006; Wang et al., 2010</td>
<td>3</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>efficacy</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Perceived behavioural</td>
<td>Laohapensang, 2009; Wang et al., 2007</td>
<td>2</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>control</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Emotions</td>
<td>Ha &amp; Lennon, 2010; Hackman et al., 2006</td>
<td>2</td>
<td>Significant positive impact</td>
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</table>
### Independent variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Studies</th>
<th>Freq.</th>
<th>Summary of findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived price</td>
<td>Liao &amp; Cheung, 2001; Mehta &amp; Kumar, 2012</td>
<td>2</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Perceived compatibility</td>
<td>Chen, Gillenson, &amp; Sherrell, 2002; Leerapong &amp; Mardjo, 2013</td>
<td>2</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Web navigation ability</td>
<td>Adeline, 2008</td>
<td>1</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Involvement</td>
<td>Chen &amp; Lee, 2005</td>
<td>1</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Cognitive adoption</td>
<td>Leerapong &amp; Mardjo, 2013</td>
<td>1</td>
<td>No significant impact</td>
</tr>
<tr>
<td>Perceived observability</td>
<td>Boyle &amp; Ruppel, 2006; Calik &amp; Ersoy, 2008; Girard &amp; Silverblatt, 2003;</td>
<td>1</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Shopping orientations</td>
<td>Ling et al., 2010; Park, 2002; Thamizhvanan &amp; Xavier, 2013; Zhang et al., 2006</td>
<td>7</td>
<td>Significant impact (except Thamizhvanan &amp; Xavier, 2013)</td>
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</table>

### Web as a sales channel

**General variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Studies</th>
<th>Freq.</th>
<th>Summary of findings</th>
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<tbody>
<tr>
<td>Service quality</td>
<td>El Ansary &amp; Roushdy, 2013; Clemes et al., 2014; Gatautis et al., 2014;</td>
<td>6</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>After-sale service quality</td>
<td>Gatautis et al., 2014; Jun &amp; Jaafar, 2011; Koo et al., 2008</td>
<td>3</td>
<td>Significant positive impact (except Jun &amp; Jaafar, 2011)</td>
</tr>
<tr>
<td>Online advertisement</td>
<td>Goode &amp; Harris, 2007; Kiran et al., 2008; Momtaz et al., 2011</td>
<td>3</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Delivery</td>
<td>Aghdaie et al., 2011; Alam &amp; Yasin, 2010</td>
<td>2</td>
<td>No significant impact</td>
</tr>
<tr>
<td>E-word of mouth</td>
<td>Fan &amp; Miao, 2012; Kamtarin, 2012</td>
<td>2</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Payment</td>
<td>Aghdaie et al., 2011</td>
<td>1</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Service value</td>
<td>Hackman et al., 2006</td>
<td>1</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Online feedbacks</td>
<td>Oncioiu, 2014</td>
<td>1</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Auctions</td>
<td>Calik &amp; Ersoy, 2008</td>
<td>1</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Relative advantages</td>
<td>Adnan, 2014; Clemes et al., 2014; Hsu &amp; Bayarsaikhan, 2012; Kamtarin, 2012; Leerapong &amp; Mardjo, 2013; Mehta &amp; Kumar, 2012; Ozen &amp; Engizek, 2014; Park &amp; Kim, 2008; Punj, 2011; Saprikis, 2013; Vaidehi, 2014; Yörük et al., 2011</td>
<td>12</td>
<td>Significant positive impact (except Adnan, 2014)</td>
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</table>

**Merchant characteristics**

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<th>Variable</th>
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<th>Summary of findings</th>
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<tr>
<td>Reputation</td>
<td>Aghdaie et al., 2011; Goode &amp; Harris, 2007; Ha &amp; Lennon, 2010</td>
<td>3</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Brand</td>
<td>Gatautis et al., 2014; Momtaz et al., 2011</td>
<td>2</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Perceived marketing mix</td>
<td>Jun &amp; Jaafar, 2011</td>
<td>1</td>
<td>Significant positive impact</td>
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similarities of factors. The main categories are (1) consumer characteristics, (2) characteristics of the web-as-a-sales-channel, (3) website characteristics (4) merchant characteristics, (5) social media and (6) product characteristics.

**Consumer characteristics**

**General variables**

As shown in Table 1, studies mostly focus on trust, perceived risk, attitude towards online purchasing, subjective norms, perceived self-efficacy, personal innovativeness, and satisfaction from online purchasing.

Trust is one of the most important dimensions in the majority of the studies. Consumers’ trust in vendors or websites (i.e., consumers’ evaluations of websites or vendor trustworthiness) plays a crucial role in online shopping. Lack of trust has

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<tr>
<td><strong>Website characteristics</strong></td>
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<tr>
<td>Web atmosphere</td>
<td>Adnan, 2014; Aghdaie et al., 2011; Alam &amp; Yasin, 2010; Chen &amp; Lee, 2005; Clemes et al., 2014; Gatautis et al., 2014; Goode &amp; Harris, 2007; Koo et al., 2008; Mazaheri et al., 2012; Zhang et al., 2006</td>
<td>10</td>
<td>Significant positive impact (except Adnan, 2014)</td>
</tr>
<tr>
<td>Perceived ease of use</td>
<td>Aghdaie et al., 2011; Bonera, 2011; Chen et al., 2002; Gatautis et al., 2014; Jun &amp; Jaafar, 2011; Mehta &amp; Kumar, 2012</td>
<td>6</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Perceived usefulness</td>
<td>Aghdaie et al., 2011; Bonera, 2011; Chen et al., 2002; Gatautis et al., 2014; Wang et al., 2010</td>
<td>5</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Reliability</td>
<td>Alam &amp; Yasin, 2010; Gatautis et al., 2014; Goode &amp; Harris, 2007; Mehta &amp; Kumar, 2012</td>
<td>4</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Information quality</td>
<td>Aghdaie et al., 2011; Koo et al., 2008</td>
<td>2</td>
<td>Significant positive impact</td>
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<tr>
<td>Message framing</td>
<td>Chu, 2008</td>
<td>1</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Playfulness</td>
<td>Bonera, 2011</td>
<td>1</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Avatars</td>
<td>Holzwarth et al., 2006</td>
<td>1</td>
<td>Significant positive impact</td>
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<tr>
<td><strong>Product characteristics</strong></td>
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<tr>
<td>Product type</td>
<td>Boyle &amp; Ruppel, 2006; Gatautis et al., 2014; Nagra &amp; Gopal, 2014; Park, 2002; Vijayasarathy, 2002</td>
<td>5</td>
<td>Significant impact</td>
</tr>
<tr>
<td>Product price</td>
<td>Clemes et al., 2014; Gatautis et al., 2014</td>
<td>2</td>
<td>Significant impact (except Clemes et al., 2014)</td>
</tr>
<tr>
<td>Product variety</td>
<td>Clemes et al., 2014; Koo et al., 2008</td>
<td>1</td>
<td>Significant positive impact</td>
</tr>
<tr>
<td>Product guarantee</td>
<td>Clemes et al., 2014</td>
<td>1</td>
<td>No significant impact</td>
</tr>
<tr>
<td>Product knowledge</td>
<td>Gatautis et al., 2014</td>
<td>1</td>
<td>Significant impact</td>
</tr>
<tr>
<td><strong>Social media</strong></td>
<td>Chaturvedi &amp; Gupta, 2014; Forbes &amp; Vespoli, 2013; Leerapong &amp; Mardjo, 2013; Maoyan et al., 2014; Vinerean et al., 2013</td>
<td>5</td>
<td>Significant positive impact</td>
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a negative impact on online purchase intention. Hence, consumers do not prefer shopping online if they think that a website or vendor is not trustworthy (Aghdaie, Piraman, & Fathi, 2011; Al-Nasser, Yusoff, Islam, & ALNasser, 2014; Becerra & Korganonkar, 2011; Bianchi & Andrews, 2012; Chang & Chen, 2008; El Ansary & Roushdy, 2013; George, 2002, 2004; Harris & Goode, 2010; Kamtarin, 2012; Li, Kim, & Park, 2007; Ling, Chai, & Piew, 2010; Ling, Piew, Daud, Keoy, & Hassan, 2011; Thamizhvanan & Xavier, 2013; Yoon, 2002). Conversely, Leerapong and Mardjo (2013) do not find a relationship between consumers’ online purchase intentions and either consumers’ trust attitude or trust propensity. Hsu, Chuang and Hsu (2014) study trust from four different perspectives: website, vendor, auction initiator, and group members. They find a positive effect of trust on online shopping intention only for website, vendor, and group members, but not for auction initiator. Besides, Wu and Lee (2012) focus on trust from a different perspective. They investigate blog trustworthiness instead of website or vendor trustworthiness. They state that bloggers have an impact on consumers’ purchase intentions. However, they do not find a significant impact of blog trustworthiness on online shopping intention.

Perceived risk is another factor that is investigated in the majority of the studies. Li et al. (2007, p. 272) define perceived risk as “consumer’s perceptions of the uncertainty and adverse consequences of engaging in an activity”. All of the studies shown in Table 1 state that perceived risk has a negative impact on consumers’ online purchase intentions (Adnan, 2014; Almousa, 2014; Bhatnagar, Misra, & Rao, 2000; Bianchi & Andrews, 2012; Boyle & Ruppel, 2006; Chang & Chen, 2008; Clemes, Gan, & Zhang, 2014; Doolin, Dillon, Thompson, & Corner, 2005; Hsu & Bayarsaikhan, 2012; Kim, J., & Lennon, 2010; Kim, S.H., & Byramjee, 2014; Kuhlmeier & Knight, 2005; Leerapong & Mardjo, 2013; Liao & Cheung, 2001;
Pavlou, 2003). It implies that if consumers think purchasing is very risky on the Internet due to security or privacy issues, their online purchases decrease.

Wang, Gu and Aiken (2010, p. 56) describe personal innovativeness as “the degree to which an individual is receptive to new ideas”. It is stated that personal innovativeness has a positive impact on online shopping intention (Boyle & Ruppel, 2006; Goldsmith, 2001, 2002; Hsu & Bayarsaikhan, 2012; Limayem, Khalifa, & Frini, 2000; Sin & Tse, 2002; Wang et al., 2010). However, Boyle and Ruppel (2006) state that identification of innovative consumers is a very difficult task in practice.

Perceived self-efficacy is yet another dimension, as prior research shows. According to Wang et al. (2010, p. 56), self-efficacy is referred to as “a consumer’s self-assessment of his or her capabilities to shop online”. If consumers’ level of self-assessment is high, their online purchases increase (Bonera, 2011; Boyle & Ruppel, 2006; Wang et al., 2010). Subjective norms are defined as “the rules by which operates [sic] the subjective motivation of individuals to act consistently with the views of the individuals’ peer and social group” (Bonera, 2011, p. 826). The majority of the studies find that the views of social groups or those of other individuals, such as opinion leaders, affect consumers’ purchase intentions (Bonera 2011; Clemes et al., 2014; Foucault & Scheufele; 2002; Laohapsang, 2009; Leerapong & Mardjo, 2013; Limayem et al., 2000; Yu & Wu, 2007; Zhang, Prybutok, & Koh, 2006).

On the other hand, Wang, Chen, Chang and Yang (2007) do not find an impact of subjective norms on online shopping intention.

As stated in Table 1, perceived compatibility, perceived observability, web navigation ability, involvement, emotions, perceived behavioural control, perceived price, and cognitive adoption are analysed in several studies (Adeline, 2008; Chen & Lee, 2005; Hackman, Gundergan, Wang, & Daniel, 2006; Hsu & Bayarsaikhan, 2012; Laohapsang, 2009; Liao & Cheung, 2001; Mazaheri, Richard, & Laroche, 2012; Mehta & Kumar, 2012; Wang et al., 2007; Wang et al., 2010).

**Demographic variables**

As indicated in Table 1, there are different types of demographic variables that have an impact on consumers’ online purchase intentions. Variables such as gender, age, education, income, level of internet usage, culture, and online shopping experience are investigated in many studies.

According to Table 1, all studies but one indicate that gender has an effect on online shopping intention. The majority of the studies reveal that men are more likely to make online purchases than women (Brown, Pope, & Voges, 2003; Doolin et al., 2005; El Ansary & Roushdy, 2013; Fan & Miao, 2012; Girard & Silverblatt, 2003; Lian & Yen, 2014; Rodgers & Harris, 2003; Thamizhvanan & Xavier, 2013; Vaidehi, 2014). Conversely, Clemes et al. (2014) find that women tend to shop online more than men.

Age is also analysed as a dimension in the majority of the studies, which find both positive and negative impacts of age (Brown et al., 2003; Doolin et al., 2005; El Ansary & Roushdy, 2013; Fan & Miao, 2012; Girard & Silverblatt, 2003; Lian & Yen, 2014; Rodgers & Harris, 2003; Thamizhvanan & Xavier, 2013), whereas three studies indicate that there is no significant relationship between age and consumers’ online purchase intentions (Doolin et al., 2005; Thamizhvanan & Xavier, 2013; Van Slyke, Comunale, & Belanger, 2002). Clemes et al. (2014) reveal that due to their past internet experience, younger consumers tend to shop online more than older consumers.
Education is one of the key factors among demographic variables. More educated people are more likely to purchase online (Girard & Silverblatt, 2003; Gong & Maddox, 2011; Punj, 2011; Thamizhvanan & Xavier, 2013). Level of internet usage is another dimension found in the literature reviewed. Consumers who have previous internet experience are more likely to shop online than those who do not have such experience (Bhatnagar et al., 2000; Calik & Ersoy, 2008; Cho, 2004; Citrin, Sprott, Silverman, & Stem, 2000; Doolin et al., 2005; El Ansary & Roushd, 2013; Gong & Maddox, 2011; Koyuncu & Lien, 2003; Kuhlmeier & Knight, 2005; Liao & Cheung, 2001; Nysveen & Pedersen, 2004; Park, 2002; Punj, 2011; Saprikis, 2013; Van Slyke et al., 2002; Wang et al., 2010).

Income is also analysed in the majority of the studies. Consumers who have higher income levels are more likely to shop online than those who have lower income levels (Calik & Ersoy, 2008; Doolin et al., 2005; Girard & Silverblatt, 2003; Gong & Maddox, 2011; Hernandez, Jimenez, & Martin, 2011; Punj, 2011). Conversely, Clemes et al. (2014) state that consumers who have high income levels do not tend to shop online because they prefer buying branded products at retail stores in order to have a nice user experience, and get support and service. It is stated that prior online purchase experience is positively related to online shopping (Bonera, 2011; Bosnjak, Galesic, & Tuten, 2007; Huang, 2011; Kuhlmeier & Knight, 2005; Leerapong & Mardjo, 2013; Ling et al., 2010; Moe & Pader, 2004; Moomtaz, Islam, Ariffin, & Karim, 2011; Park & Jun, 2003; Thamizhvanan & Xavier, 2013; Wang et al., 2010; Yang & Lester, 2004). Moreover, Dai, Forstyhe and Kwon (2014) indicate that online shopping experience is a positive predictor for both digital and non-digital product categories.

Culture is yet another indicator among demographic variables. All studies but one reveal that different cultures use the Internet for different purposes, and the development of the Internet is different around the globe (Chau, Cole, Massey, Montoya-Weiss, & O’Keefe, 2002; O’Keefe et al., 2000; Pavlou, 2003; Shiu & Dawson, 2002; Stafford, Turan, & Raisinghani, 2004). Residential area, sexual preference, purchase experience, marital status, credit card usage, accessibility, and race have also been investigated in past studies, and their impacts on online shopping intention are shown in Table 1 (Chen & Lee, 2005; Doolin et al., 2005; Gong & Maddox, 2011; Koyuncu & Lien, 2003; Thamizhvanan & Xavier, 2013; Van Slyke, Lou, Belanger, & Sridhar, 2010).

Shopping orientations

Consumers’ shopping orientations play a crucial role in their online purchase intention. Ling et al. (2010) find that brand and quality orientation are positively related to online purchase intention. On the other hand, Thamizhvanan and Xavier (2013) do not find an impact of brand and quality orientation on online purchase intention. Hence, previous studies have contained mixed findings about whether brand and quality orientation influence online purchase intention.

In addition, some studies focus on price consciousness, convenience, recreational shopping, variety seeking, entertainment orientations, and impulsiveness. It has been found that (1) consumers who purchase more items on the Internet are more price sensitive, (2) consumers who are loyal to websites prefer to purchase online more, and (3) people who spend more time online buy more items (Calik & Ersoy, 2008; Girard & Silverblatt, 2003; Ling et al., 2010; Park, 2002; Thamizhvanan & Xavier, 2013). Conversely, Brown et al. (2003) indicate that shopping orientations do not have a direct impact on online purchase intention.
Characteristics of the web as a sales channel

General variables

As shown in Table 1, service quality, advertisements, and e-word of mouth are analysed in the majority of the studies. Service quality and value have a positive impact on online purchase intention (Boyle & Ruppel; 2006; Clemes et al., 2014; El Ansary & Roushdyn, 2013; Gatautis, Kazakeviciute, & Tarutis, 2014; Hackman et al., 2006; Liao & Cheung, 2001; Tsao & Tseng, 2011). The effect of online advertisements has been found to be a significant determinant on online purchase intention as well (Goode & Harris, 2007; Kiran, Sharma, & Mittal, 2008; Momtaz et al., 2011). E-word of mouth has emerged with the rapid advancement of online shopping. It is available to all online consumers and helps them in making online shopping decisions. Thus, it has a positive impact on online shopping intention (Fan & Miao, 2012; Kamtarin, 2012).

After-service quality is analysed by Jun and Jaafar (2011), Koo, Kim and Lee (2008) and Gatautis et al. (2014). Koo et al. (2008) and Gatautis et al. (2014) find an impact of after-service quality on online purchase intention, whereas Jun and Jaafar (2011) find no relationship between them. In addition, payment and delivery issues, auctions, online feedback, and service value have an impact on online purchase intention (Aghdaie et al., 2011; Alam & Yasin, 2010; Calik & Ersoy, 2008; Hackman et al., 2006, Oncioiu, 2014).

Relative advantages

Some of the studies focus on the relative advantages of online shopping. They have shown that online shopping is faster and more convenient than traditional shopping and that consumers can (1) find the best product easily, (2) have more product alternatives, (3) shop anytime, anywhere, (4) place orders easily and save money, and (5) follow promotional activities (Adnan, 2014; Clemes et al., 2014; Hsu & Bayarsaikhan, 2012; Kamtarin, 2012; Kiran et al., 2008; Leerapong & Mardjo, 2013; Mehta & Kumar, 2012; Punj, 2011; Saprikis, 2013; Vahidehi, 2014; Vinerean, Certina, Dumitrescu, & Tichindelean, 2013). In addition, Ozen and Engizek (2014) focus on hedonic values and find that consumers enjoy online shopping and searching. Consumers socialise and relax while shopping. On the other hand, Adnan (2014) does not find a significant relationship between hedonic values and online shopping intention.

Merchant characteristics

Reputation of the vendor or merchant is investigated in prior research and is found to have a crucial role (Aghdaie et al., 2011; Goode & Harris, 2007; Jun & Jaafar, 2011). Jun and Jaafar (2011) also focus on marketing mix and find that it has a positive impact on online shopping. Lastly, Momtaz et al. (2011) investigate brands and find that brand management has an important role in online shopping.

Website characteristics

As stated in Table 1, the studies mainly focus on information quality, perceived ease of use, usefulness, web atmosphere, and reliability. There is a positive impact of information quality, perceived ease of use and usefulness on online purchase intention (Aghdaie et al., 2011; Bonera, 2011; Gatautis et al., 2014; Jun & Jaafar, 2011; Koo et al., 2008; Mehta & Kumar, 2012). Web atmosphere consists of structure, design,
layout, functionalities, image, and aesthetics dimensions. There is a significant relationship between the atmospheric cues of a website and online purchase intention (Aghdaie et al., 2011; Alam & Yasin, 2010; Chen & Lee, 2005; Clemes et al., 2014; Gatautis et al., 2014; Goode & Harris, 2007; Koo et al., 2008; Mazaheri et al., 2012; Zhang et al., 2006). Conversely, Adnan (2014) does not find a positive impact of website atmosphere on online shopping intention. Reliability of the website has an impact on online purchase intention (Alam & Yasin, 2010; Gatautis et al., 2014; Goode & Harris, 2007; Mehta & Kumar, 2012).

Message framing is investigated by Chu (2008), who found that negative messages have more impact on consumers than positive ones. Other studies find an impact of playfulness (e.g., using avatars that are representations of humans in a virtual world) and perceived ease of use and usefulness on online purchase intention (Bonera, 2011; Holzwarth, Janiszewski, & Neumann, 2006; Ling et al., 2011).

Social media

Nowadays, social media play a very important role in the rapid development of the Internet. For this reason, it is added as a new category to the framework demonstrated in Figure 1. Maoyan, Zhujunxuan and Sangyang (2014, p. 93) define social media as a “network and technology which is used to create hot news by Internet users, then communicate and disseminate information to each other” and social media marketing as “community marketing which is a kind of Internet marketing model, it points to achieve marketing objectives by participating in various social media networks” (p. 93).

Vinerean et al. (2013), Forbes and Vespoli (2013), and Leerapong and Mardjo (2013) analyse the importance of social media and its effects on online purchasing. Vinerean et al. (2013) state that social media influence online shopping. Forbes and Vespoli (2013) indicate that people consider the views of opinion leaders in social media when they make a purchase and buy both expensive and inexpensive products according to their recommendations. Accordingly, they advise companies to encourage their customers to post on social media. Another implication is that consumers desire information now, so there is a shift from traditional social media platforms, such as Facebook, to ‘quicker’ social media platforms, such as Twitter.

In addition, Maoyan et al. (2014) study social media marketing and find that it has an effect on consumers’ online purchase intentions with respect to four factors: placement, marketing activities, experiential marketing, and interaction. These factors influence consumers’ inner perception (i.e., perceived value and perceived risk) and altogether, they affect online purchase intention. In addition to this study, Chaturvedi and Gupta (2014) also observe the effect of social media on consumers’ purchase intentions. They conclude that social media is a powerful and low-cost platform for sales promotions to attract and reach the maximum number of consumers.

Product characteristics

Product type and product assortment are the product characteristics that have an impact on online purchase intention. When a website is often updated with new products, product assortment increases, which in turn has a positive impact on online shopping (Koo et al., 2008). Regarding product type, product tangibility is a crucial factor in the sense that consumers prefer to buy intangible products from online stores (Brown et al., 2003; Gatautis et al., 2014; Park, 2002; Vijayasarathy, 2002). On the other hand, Nagra and Gopal (2014) reveal that consumers buy all types
of goods and services online. In particular, they state that consumers explore the products offline and look for the best price online. Additionally, Clemes et al. (2014) investigate product price, guarantee, and variety. Although they find a positive impact of product variety on online purchase intention, they do not find a significant impact of either guarantee or price. On the other hand, Gatautis et al. (2014) find an impact of both product price and product knowledge on online purchase intention.

CONCLUSIONS

Technological developments and proliferation of the Internet introduce a new type of consumer called an online consumer. It is obvious that online consumers have various characteristics and behave differently from traditional consumers. In order to understand online consumer behaviour and online purchase intention, an analysis of consumer characteristics, environment, and technological trends is necessary. Hence, our paper evaluates past research on relevant factors that have an impact on consumers’ online purchase intentions and categorises these factors with respect to their similarities. Indeed, this study is a roadmap for further studies. Our work includes both heavily investigated and underestimated dimensions of consumers’ online purchase intentions.

Characteristics of online consumers is one of the topics that attracts much attention in the literature. The majority of research papers focus on demographic profiles and technographics of online consumers, particularly gender, age, education, income, culture, internet usage level, and online purchase experience. It is revealed that males are more inclined to shop online compared with females. Moreover, studies indicate that younger people make more online purchases than older people due to their level of internet usage experience. Past research provides evidence that online purchase experience and high income also increase the online purchase tendency of consumers.

From the consumers’ perspective, trust, perceived risk, attitude, and personal innovativeness play vital roles in consumers’ online purchase intentions. Trust and perceived risk are considered as a challenge in the online environment. If customers trust vendors or websites and think that the environment is risk-free, they make more online purchases.

Nowadays, companies treat the Web as a sales channel; and service quality and after-service quality are among the most important dimensions of web channels in order to increase the satisfaction level of online consumers. In addition, this online environment offers many relative advantages to consumers. These relative advantages attract consumers to more convenient, easier, time-saving, and more enjoyable online shopping. The majority of the papers in this category focus on these points and advantages of online purchasing.

Features of a user-friendly website have also received considerable attention in previous articles. The most heavily examined topic is web atmosphere. A website should be aesthetic, reliable, responsive, and include informative, good, and rich content. Product type and product characteristics are also intensely studied in past papers.

Social media and social media marketing are hot topics in the research agenda due to the development of Web 2.0. Consumers create, share, and disseminate information and communicate with each other on digital platforms. Past research indicates that social media affect consumers’ online purchase intentions in this two-way online environment.
Our paper also identifies dimensions which are not frequently investigated in the context of online purchase intention. In this manner, the paper proposes further research areas about online shopping for academics:

- Impact of payment type, service value, online feedback, and auctions on online purchase intention;
- Impact of product variability, guarantee, and knowledge on online purchase intention;
- Impact of avatars, message framing, and playfulness of websites on online purchase intention;
- Impact of web navigation ability of consumers, their involvement, cognitive adoption, and perceived observability on online purchase intention.

Furthermore, social media will continue to be a hot topic and will be investigated at a tremendous rate within a more digitalised world.

**MANAGERIAL IMPLICATIONS**

In today’s competitive and digitalised world, companies try to observe and understand the differences between online consumers and traditional consumers. Companies concentrate on the needs and wants of online consumers in order to attract and satisfy these consumers. This study suggests different approaches for managers who are interested in online consumers.

First of all, managers should be aware of the fact that this new type of consumer behaves in a distinct way and has various and diverse characteristics compared with those of a traditional consumer. Depending on the demographic profile of online consumers, companies should design their marketing campaigns accordingly.

Furthermore, trust is one of the crucial dimensions in the digitalised world. Consumers want to trust their vendors and websites. In order to satisfy consumers and earn their loyalty, managers should provide consumers with a risk-free environment. For this reason, many companies may prefer to cooperate with cyber security companies to increase their websites’ security. Websites should be designed well and their content should be clear, attention-grabbing and understandable for consumers. If both content and design represent the business image well, consumers begin to trust them as a vendor. Besides, service quality and after-service quality are very important aspects, particularly in the online environment. Companies should assure their consumers that quality is guaranteed from the beginning of an online purchase activity until the end.

Companies should give their consumers explicit product information by using a more descriptive language, and it is suggested that companies provide consumers not only textual information about their products, but also images and videos on the websites.

One of the important implications is that companies should follow technological trends, update themselves, and be prepared for any changes in the market. Companies should be aware of the rise of social media. It is clear that consumers share their opinions on social networks, which are very dynamic platforms. Therefore, companies should analyse consumers’ activities and conversation patterns on these social networks and should be prepared to take more responsive steps in order to satisfy online consumers.
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**ABOUT THE AUTHORS AND CORRESPONDENCE**

Ezgi Akar is a PhD candidate in the Department of Management Information Systems at Bogazici University. She received her MA in Management Information Systems from Bogazici University in 2013. Her research interests include digital marketing, information systems, data mining, and CRM.

**Corresponding author:** Ezgi Akar, Bogazici University, Department of Management Information Systems, Hisar Campus, 34342, Bebek, Istanbul, Turkey.

E ezgi.akar@boun.edu.tr

V. Aslihan Nasir received her Bachelor’s degree in Economics from Istanbul University and a PhD in Marketing from Bogazici University. In 2004, she joined the Department of Management Information Systems, Bogazici University as Assistant Professor of marketing. She is currently a Full Professor at Bogazici University. Her research and publications focus on consumer behaviour, CRM and e-marketing. She is the author of several articles and research reports that are published in prominent journals and conference proceedings.

V. Aslihan Nasir, Bogazici University, Department of Management Information Systems, Hisar Campus, 34342, Bebek, Istanbul, Turkey.

E aslihan.nasir@boun.edu.tr