# The effect of characteristics of source credibility on consumer behaviour: A meta-analysis

## Abstract

The aim of this research is to synthesise findings from existing studies on the characteristics of source credibility of electronic word of mouth (eWOM) communications in a single model by using meta-analysis. Findings from 20 research papers show that source expertise, trustworthiness, and homophily significantly influence perceived eWOM usefulness and credibility, intention to purchase, and information adoption. The results of this study add to existing knowledge of the influence of source characteristics on consumer behaviour, which will advance our understanding of information processing. Marketers can use the findings of this meta-analysis to enhance their marketing activities.

**Keywords:** Electronic word of mouth (eWOM), meta-analysis, characteristics of source credibility, consumer behaviour

## 1. Introduction

In the Internet era, consumers increasingly look for information about products and services online to enhance their purchase decision process (Alalwan 2018; Dwivedi et al., 2015; Lee et al., 2008; Shareef et al., 2017; Shiau et al., 2018). Consumers who used advertising communications and professional advice a few years ago, now more often use recommendations provided by other online consumers (Lee et al., 2008; Misirlis and Vlachopoulou, 2018; Purnawirawan et al., 2015; Shareef et al., 2018). Electronic word of mouth (eWOM) is defined as "the dynamic and on-going information exchange process between potential, actual, or former customers regarding a product, service, brand or company, which is available to a multitude of people and institutions via the Internet" (Ismagilova et al., 2017, p.18). eWOM communications about products and services work as a form of free 'sales assistance' (Chen and Xie, 2008; Kamboj et al., 2018; Purnawirawan et al., 2015), which help consumers to learn about products/services (Book et al., 2018; Lee and Hong, 2016; Nisar  et al., 2017; Kapoor et al., 2018; Pacauskas et al., 2018) and reduce uncertainty while making a purchase decision (Reimer and Benkenstein, 2016a; Shaikh et al., 2018).

While traditional face-to-face word of mouth (WOM) communications mostly happen between sender and receiver with significant tie strength, eWOM usually occurs in indirect and public communications between people with weak social ties (Chu et al., 2018; Godes and Mayzlin, 2004; Hennig-Thurau et al., 2004; Shiau et al., 2017). Thus, consumers can have some difficulty when assessing reliability of recommendation source (Smith et al., 2007; Xiang et al., 2015). Previous research found that credibility plays an important role for valuation of eWOM message (Alalwan et al., 2017; Chang and Wu, 2014; Munzel, 2016; Teng et al., 2017; Ukpabi and Karjaluoto, 2018; Yan et al., 2018). When searching for information on products and services online, consumers can be faced with a high volume of eWOM communications. Source credibility is one factor readers can use to navigate through these eWOM communications (Dou et al., 2012; Metzger et al., 2010). The receiver of eWOM communications is more likely to consider them in their decision-making process if they perceive them as credible (Aladwani and Dwivedi, 2018; Wathen and Burkell, 2002).

Existing studies in this area have tended to investigate the effect of source credibility on the receiver of information (Chen et al., 2014; Luo et al., 2015). However, fewer studies have focused on how different characteristics of source credibility influence consumers' behaviour. Previous studies suggest that expertise, trustworthiness, and homophily affect perception of source credibility, which in turn leads to more positive evaluation of online reviews (Chang and Wu, 2014; Filieri, 2015; López and Sicilia, 2014a; López and Sicilia, 2014b; Luo et al., 2015). However, there are conflicting findings regarding the effect of various characteristics of source credibility on other variables. For example, Willemsen et al. (2011) found that expertise claims are weakly related to perceived review usefulness for search and experience products on Amazon, while Filieri et al. (2018a) found that reviewer's expertise positively influences perceived eWOM usefulness in a service context. Inconsistent findings make it challenging to develop a model of characteristics of source credibility based

on results from previous studies. While there have been some studies providing literature reviews on eWOM credibility (Cheung and Thadani, 2012; Ismagilova et al., 2016; Ukpabi and Karjaluoto, 2018), these studies do not focus on characteristics of source credibility in detail and their impact on readers. Additionally, some researchers conducted meta-analyses in the area of eWOM communications (Babić Rosario et al., 2016; Floyd et al., 2014; Purnawirawan et al., 2015; You et al., 2015), but mostly focused on the effect of eWOM communications on sales. Thus, the aim of this research is to synthesise the previous findings from existing studies on characteristics of source credibility of eWOM communications in a single model by using meta-analysis.

Meta-analysis is a statistical procedure which includes combining data from multiple studies (Dwivedi et al., 2017; Gurevitch et al., 2018; Rana et al., 2015; Zhao et al., 2018). As results vary from one study to another, decisions about the validity of relationships between dependent and independent variables cannot be based just on the results of a single study. Thus, researchers synthesise data across studies using meta-analysis. Traditional literature reviews had been used for this purpose but they are mostly subjective and it becomes difficult to integrate results when a large number of studies is involved. As a result, by synthesising findings from numerous independent studies on the same relationship into a single estimate, meta-analysis assists researchers in making more reliable conclusions (Geyskens et al., 2009; Schmidt and Hunter, 2014). By using meta-analysis, the current research will be able to provide a consolidated view on how different characteristics of the source, such as trustworthiness, expertise, and homophily, affect perception and impact of eWOM communications. For academics, understanding how characteristics of source credibility influence consumer behaviour will help to advance the understanding of information processing. For marketers it will provide practical guidance based on detailed analysis of

specific factors influencing consumers' behaviour based on characteristics of source credibility, which will enhance their marketing activities.

The remainder of the paper is organised as follows. First, the literature review and hypotheses development will be presented. Second, the research method will be explained, including the selection of the studies and meta-analysis procedure. Next, the findings will be presented and, finally, the paper will be concluded with the discussion of theoretical and practical implications of the study, followed by limitations and proposed directions for further research.

## 2. Literature review and hypotheses development

### 2.1 Source credibility

Characteristics of information source can influence persuasiveness and impact of eWOM communications on the receiver. The receiver considers the source as credible when the information from it can be trusted (Chaiken, 1980). Previous studies examined the influence of source credibility on consumers' intention to buy (Nekmat and Gower, 2012; Zhang et al., 2014), information adoption (Coursaris and Van Osch, 2016), information usefulness (Chen et al., 2014; Filieri, 2015; López and Sicilia, 2014a; López and Sicilia, 2014b; Teng et al., 2014), and information credibility (Chang and Wu, 2014; Cheung et al., 2009; Luo et al., 2015; Teng et al., 2017). Existing studies found that the perception of the information source is affected by source expertise (Fan and Sun, 2012; Luo et al., 2015; Pan, 2014), trustworthiness (Levy and Gvili, 2015; Lim and Van Der Heide, 2015; Willemsen et al., 2012) and perceived social relationships between the information source and the receiver (Fan and Sun, 2012; Pan, 2014). Table 1 presents the characteristics of source credibility, definitions, and studies which investigated the effects of these characteristics, used in this research.

**Table 1**

Characteristics of source credibility

| Characteristic | Definition | Studied relationship | References |
|---|---|---|---|
| Expertise | The extent to which a person is able to provide the correct information | Expertise-Intention to Buy | **Significant positive:** Baber et al. (2016); Fan and Sun (2012); Filieri et al. (2018b); Hill et al. (2017); Ho and Chien (2010); Hwang et al. (2018); Kim et al. (2018); Lis (2013); Park and Kim (2008); Saleem and Ellahi (2017); Zainal et al. (2017) <br><br>**Non-significant:** Dou et al. (2012) |
| | | Expertise-Usefulness | **Significant positive:** Filieri et al. (2018a); Filieri et al. (2018b); González-Rodríguez et al. (2016); Jamil and Hadnu (2013); Lee et al. (2011); Wang et al. (2007) <br><br>**Non-significant:** Cheung et al (2008); Willemsen et al. (2011) |
| | | Expertise-Information Credibility | **Significant positive:** Elaziz and Mayouf (2017); Fan and Sun (2012); Fang (2014); Ho and Chien (2010); Lis (2013); Saleem and Ellahi (2017) |
| | | Expertise-Information Adoption | **Significant positive:** Cheung et al. (2008); Fang (2014); Lis (2013) <br><br>**Not significant:** Wang et al. (2007) |
| Trustworthiness | Recipient's degree of message trust of the advice given by the information communicator | Trustworthiness-Intention to Buy | **Significant positive:** Cheung et al. (2009); Dou et al. (2012); Hill et al. (2017); Ho and Chien (2010); Hwang et al. (2018); Munzel (2016); Reimer and Benkenstein (2016b); Saleem and Ellahi (2017); Wu and Lin (2017); Zainal et al. (2017) <br><br>**Non-significant:** Baber et al. (2016); Filieri et al. (2018b); Lin and Xu (2017) |
| | | Trustworthiness-Usefulness | **Significant positive:** González-Rodríguez et al. (2016); López and Sicilia (2014a); López and Sicilia (2014b); Wang et al. (2007) <br><br>**Non-significant:** Cheung et al. (2008); Filieri et al. (2018b) |
| | | Trustworthiness-Information Credibility | **Significant positive:** Cheung et al. (2009); Ho and Chien (2010); Lis (2013); Shamhuyenhanzva et al. (2016) |
| | | Trustworthiness-Information Adoption | **Significant positive:** Cheung et al. (2008); Lis (2013); Wang et al. (2007) |
| Homophily | The degree to which two or more individuals who | Homophily-Intention to Buy | **Significant positive:** Fan and Sun (2012); Filieri et al. (2018b); Saleem and Ellahi (2017); Shang et al. |

| | | (2017) |
| --- | --- | --- |
| interact are similar in certain attributes (e.g. beliefs, education, social status) | Homophily-Information Credibility | **Significant positive:** Chu and Kim (2011)**;** Fan and Miao (2012); Fan and Sun (2012); Lis (2013); Pentina et al. (2018); Saleem and Ellahi (2017) |

## 2.2 Source expertise

Source expertise is connected to source credibility and considered as a main mechanism in reducing uncertainty of using user reviews (Casalo et al., 2008; Kucukusta et al., 2015; González-Rodríguez et al., 2016). Expertise is defined as "the extent to which the source is perceived as being capable of providing correct information" (Bristor, 1990, p.73). The degree of expertise is connected to the experience or training of the source (Racherla and Wesley, 2012). Individuals use different ways to determine the expertise of the writer of a message. The expertise can be assessed by the number of reviews posted, its content, and duration of reviewer being a member of the platform (Racherla and Wesley, 2012; Weiss et al., 2008). Previous studies investigated relationships between source expertise and eWOM usefulness (González-Rodríguez et al., 2016; Jamil and Hadnu, 2013; Lee et al., 2011), intention to buy (Park and Kim, 2008; Saleem and Ellahi, 2017; Zainal et al., 2017), information credibility (Fang, 2014; Fan and Sun, 2012; Ho and Chien, 2010; Lis, 2013), and information adoption (Wang et al., 2007).

Previous studies claim that reviewers' comments are considered to be more helpful when they are provided by an expert source (González-Rodríguez et al., 2016). Using 600 reviews from Epinions.com, it was found by Jamil and Hadnu (2013) that the reviews, which are provided with high expertise are perceived more useful, in comparison with reviews written by reviewers with low expertise. Thus, it is hypothesis that:

*H1: Source expertise has a positive effect on eWOM usefulness.*

Several studies have shown that information credibility is a basic requirement for eWOM adoption (Chang and Wu, 2014; Cheung et al., 2009). Adoption of eWOM refers to the extent to which consumers accept and use eWOM in making their purchase decisions (Cheung and Thadani, 2012; Lis, 2013). Cheung et al. (2008) found that source expertise positively influenced information adoption on the OpenRice.com forum in Hong-Kong. It is proposed that an expert source will be perceived as having greater awareness and knowledge of the discussed products/services, which will positively affect information adoption. Therefore, we hypothesise:

H2: *Source expertise has a positive effect on adoption of eWOM.*

In traditional WOM research, scholars found that source expertise positively affects consumer purchase intention as well as actual buying behaviour (Gilly et al., 1998; Harmon and Coney, 1982). Previous research has examined the relationship between source credibility and purchase intention in the context of eWOM (Zhang et al., 2014), and some of the studies have examined how source expertise influences intention to buy (Baber et al., 2016; Fan & Sun, 2012). A number of empirical studies showed that the influence of eWOM increases when it is generated from an expert of that specific field (Kim et al., 2018; Lis, 2013; Zainal et al., 2017). A study conducted by Lis (2013) on eWOM found that the higher the level of a reviewer's expertise, the higher the probability that their suggestion would be used in a consumer's purchase decision. The expertness of an individual is an important factor for making the eWOM massage more persuasive and it increases the purchase intention. Thus, it is hypothesised:

*H3: Source expertise has a positive effect on intention to buy.*

Previous studies found that source expertise influences information credibility (Fang, 2014; Lis, 2013). Based on the source-credibility model, the perceived expertise of the sender plays

a significant role in determining credibility (Hovland and Weiss, 1951). A receiver will seek information from a person who is perceived as knowledgeable and experienced (Yale and Gilly, 1995). The reader assumes that the sender has substantial and useful information because of a high level of expertise (Bansal and Voyer, 2000). Previous studies show that information which is provided by experts has a substantial effect on the receiver of this information (Bansal and Voyer, 2000; Bone, 1995; Gilly et al., 1998; van Wangenheim and Bayon, 2004; Yale and Gilly, 1995). Receivers choose senders with a high level of expertise due to the fact that they expect them to provide highly qualified information (McCracken, 1989). Information from a sender with a high level of expertise is assumed to be more credible as the receiver of the information has no reasons to doubt the correctness given the knowledge and competence of the sender (Lis, 2013; Wathen and Burkell, 2002). Using surveys of 634 users of an online discussion forum, Lis (2013) found that the higher the level of perceived reviewer expertise the more credible their recommendation is perceived to be. As a result, it is proposed that:

*H4: Source expertise has a positive effect on perceived eWOM credibility.*

## 2.3 Source trustworthiness

Another determinant of source credibility is perceived trustworthiness of the sender (Hovland et al., 1953); the credibility of information is doubted less by a receiver when the source is trustworthy (Sparkman and Locander, 1980). Information source and recommendation provided are considered as trustworthy if the statement is judged as valid, honest, and to the point (Hovland and Weiss, 1951). Previous eWOM studies examined the role of source trustworthiness on information usefulness (Cheung et al., 2008; González-Rodríguez et al., 2016; Jamil and Hadnu, 2013; Lee et al., 2011; van Tonder and Petzer, 2018), intention to

purchase (Dou et al., 2012; Reimer and Benkenstein, 2016b; Zainal et al., 2017), and information credibility (Lis, 2013; Shamhuyenhanzva et al., 2016).

In the online environment, individuals can freely express their opinions and feelings about products, services, and brands and stay anonymous at the same time. As a result, users will try to determine the trustworthiness of the contributors in order to use or reject the provided information. When a consumer thinks that the provided information is from a highly trustworthy source, they will perceive the information as useful (Wang et al., 2007). Previous research has found that source trustworthiness affects perceived usefulness of eWOM communications (González-Rodríguez et al., 2016; Wang et al., 2007). For example, Wang et al. (2007) found that source trustworthiness positively correlates with perceived usefulness of the message in the context of online hotel reviews. As a result, the following hypothesis can be proposed:

*H5: Source trustworthiness has a positive effect on eWOM usefulness.*

It is well established that source credibility has a positive impact on information adoption (Coursaris and Van Osch, 2016). However, only a limited number of studies have investigated the relationship between source trustworthiness and eWOM adoption. Researchers argue that information seekers need to analyse a sender's trustworthiness before adopting information provided. When an information seeker considers the informant to be credible, they will devote significant cognitive resources to process provided information with little scepticism (Wang et al., 2007). Thus, it is suggested that the information from a trustworthy source is expected to shape the information seeker's attitude and behaviour.

H6: *Source trustworthiness has a positive effect on adoption of eWOM.*

Source trustworthiness is an important predictor of the persuasiveness of online reviews (Cheung et al., 2009; Hu et al., 2008). Lis (2013) argues that trust can be considered as the willingness or intention to rely on another person; relating this to theories of planed behaviour and of reasoned action, where a positive feeling leads to intention, suggests trust in the source would lead to purchase intention (Saleem and Ellahi, 2017). Based on this argument, a study conducted by Saleem and Ellahi (2017) found that trustworthiness of the content provider affects the purchase intention of fashion products on social media websites. Cheung et al. (2009) found that source trustworthiness positively influences behavioural intention. Another study conducted by Dou et al (2012) found that source trustworthiness positively affects intention to buy in the context of online video reviews. Based on the above discussion the following hypothesis is proposed:

*H7: Source trustworthiness has a positive effect on intention to buy.*

Based on the source-credibility model, Lis (2013) found that a reviewer's trustworthiness plays a role in indicating eWOM credibility. A trustworthy reviewer is considered more credible as they show a high degree of objectivity and sincerity, thus the receiver has no reason to question the validity of the information provided. As a result, the probability that the receiver finds this type of information as more influential and credible is higher (Huang and Chen, 2006). The challenge for consumers using eWOM communications, unlike traditional WOM, is caused by the difficulty in judging whether the source is trustworthy or not. Thus, they use indirect methods such as objectivity of the content or consistency of the argument. Previous studies (e.g. Lis 2013; Shamhuyenhanzva et al., 2016) found that source trustworthiness affects perceived eWOM credibility. For example, Shamhuyenhanzva et al. (2016) conducted a cross-sectional study in South Africa and found that source trustworthiness has a direct positive impact on eWOM credibility. Based on the above discussion, the following hypothesis is proposed:

*H8: Source trustworthiness has a positive effect on perceived eWOM credibility.*

## 2.4 Source homophily

Individuals' social relationships can influence the credibility of the source of eWOM communications (Pan and Chiou, 2011), which can be determined by homophily (Miller and Hoppe, 1973). Social homophily can be derived from demographic characteristics (i.e. gender, age, level of education, and occupation) or perceived attributes (preferences, values, beliefs) (Lazarsfeld and Merton, 1964; Lis 2013). For example, in the context of online reviews, individuals look for values and experiences, which match their own character and ideas; where a review comprises this type of information and the reader shares similar values and preferences, the perceived homophily will be increased (Blanton, 2013). Even though in online environments consumers do not have face-to-face interactions, they can still make inferences about similarity with review providers by appraising review content and checking profile information. By doing this, individuals can learn more about the personality, values, preferences, and experiences of a reviewer (Filieri et al., 2018b).

Previous studies found that homophily influences consumers' behavior (Jalees et al., 2015; Saleem and Ellahi, 2017; Steffes and Burgee 2009). It has been found that consumers who share high levels of homophily, participate in eWOM with each other more and, as a result, it will influence their intention to buy (Chu and Kim, 2011). According to the Elaboration Likelihood Model, people make a decision based on the characteristics of the information source. Thus, if a reader finds that a reviewer is similar to them, the message will become more persuasive to the reader. For example, Steffes and Burgee (2009) found that information from homophily sources is more influential in consumer decision-making in comparison to heterophily sources (low homophily). Another study conducted by Saleem and Ellahi (2017) found that homophily has a positive and significant impact on purchase

intention of Facebook users in the context of fashion products. Thus, it is argued that if a receiver perceives a source to be similar, the message should be more persuasive than from a source perceived as dissimilar (Eagly and Chaiken, 1993; Filieri et al., 2018a). Therefore, consumers find recommendations from reviewers who are similar to them to be more influential as they fit their interests, attitude, and preferences. Therefore, the following hypothesis is proposed:

*H9: Homophily between an information source and receiver has a positive effect on intention to buy.*

Based on the source attractiveness model, Lis (2013) assumed that social homophily affects credibility ratings of online reviews. A greater homophily between a sender and receiver of information has a positive effect on the sender's influence (Gilly et al., 1998). As the 'like-me' principle is a fundamental concept in human interactions, sources with greater homophily are used more often in a consumer's decision-making (von Wangenheim and Bayon, 2004). Previous studies found that perceived credibility of the online recommendations is higher if the perceived homophily between the reviewer and the reader is high (Fan and Miao, 2012; Pentina et al., 2018). Thus, it is argued that consumers may find the recommendations from sources that are similar to them to be more credible. As a result, the following hypothesis is proposed:

*H10: Homophily between an information source and receiver has a positive effect on perceived eWOM credibility.*

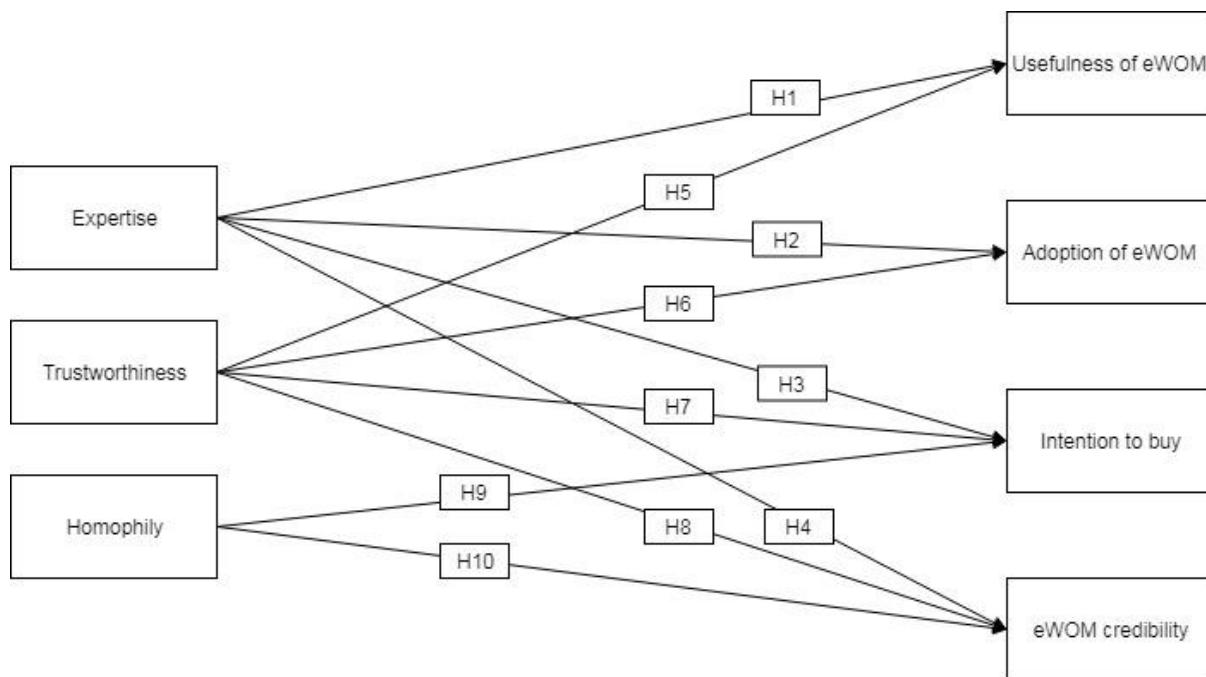Based on the above hypotheses, Figure 1 presents the proposed research model.

**Figure 1.** Research model

## 3. Method

### 3.1 Selection of Studies

In order to identify relevant studies for this meta-analysis, and in accordance with procedures in other meta-analysis studies (e.g. Purnawirawan et al., 2015, Rana et al., 2015), the following steps were undertaken. First, a search using keywords such as "Electronic word-of-mouth" OR "Electronic word of mouth" OR "eWOM", "Internet word-of-mouth" OR "Internet word of mouth" OR "iWOM", "Online word-of-mouth" OR "Online word of mouth", "Virtual word-of-mouth" OR "vWOM" OR "Virtual word of mouth" was performed in various electronic databases (i.e. EBSCO, Web of Science, Scopus). As a result, more than 600 articles were identified, published between 2000 and 2018. Second, a manual search was conducted for the articles relevant to characteristics of source credibility of eWOM and impact on receivers, as a result 32 studies were selected. Next, only studies which contained the required statistics (sample size, Pearson correlation, and significance of the relationships)

were selected from the aforementioned pool of 32 articles. As a result, 20 studies were used for this meta-analysis (see Appendix 1 for summary of main details of these 20 studies).

## 3.2 Meta-analysis procedure

Meta-analysis is a reliable tool to provide quantitative summaries of the research literature (Hamari & Keronen, 2017; Morris, 2008; Wu et al., 2011; Zhang et al., 2018). In order to perform meta-analysis, a trial version of Comprehensive Meta-Analysis software was employed, which has been successfully utilised by other scholars (e.g. Rana et al., 2015). The software generates a cumulative correlation coefficient (Avg (r)), effect size (p(ES)), standard normal deviations (Z-value), and 95% confidence interval, by using correlation coefficients between each pair of dependent and independent variables and sample size (Rana et al., 2015). Following the same approach as previous meta-analysis studies (e.g. Jeyaraj et al., 2006; Rana et al., 2015), variables for this study were only selected if the relationship between each pair of variables had been examined by previous studies at least three or more times using different datasets in order to obtain a proper correlation.

## 4. Analysis and Findings

The results of meta-analysis are displayed in Table 2. The table presents independent and dependent variables, number of times a particular relationship was studied, cumulative correlations (Avg(r)), effect sizes (p(ES)), standard normal deviation (Z-value) and 95% lower and upper confidence interval levels. The p-values across all the relationships indicate that the correlations between constructs are significant and all cumulative correlation coefficients are positive; therefore, all 10 proposed hypotheses are supported. The cumulative correlation values show that the relationships between source trustworthiness and information usefulness, and source trustworthiness and information credibility, are more strongly

correlated than the other relationships. The 95% confidence interval also supports the correlation values and likelihood of these values to fall in the given interval.

Figure 2 depicts the corresponding relationships between investigated dependent and independent variables. The combined correlation of the constructs has been provided in the figure with respect to the individual values of the constructs. This combined correlation has been calculated through Comprehensive Meta-Analysis software.

**Table 2**

Results of meta-analysis

| Independent variable | Dependent Variable | Number of studies | Avg(r) | Z-value | p(ES) | 95% L(r) | 95% H(r) |
|---|---|---|---|---|---|---|---|
| Expertise | Usefulness | 3 | 0.459 | 3.689 | 0.000 | 0.228 | 0.641 |
| | Information adoption | 4 | 0.341 | 2.708 | 0.007 | 0.098 | 0.546 |
| | Intention to buy | 8 | 0.470 | 6.432 | 0.000 | 0.340 | 0.582 |
| | Information credibility | 5 | 0.448 | 8.254 | 0.000 | 0.352 | 0.534 |
| Trustworthiness | Usefulness | 7 | 0.521 | 5.442 | 0.000 | 0.353 | 0.656 |
| | Information adoption | 3 | 0.273 | 2.807 | 0.005 | 0.084 | 0.443 |
| | Intention to Buy | 9 | 0.456 | 7.499 | 0.000 | 0.348 | 0.552 |
| | Information credibility | 3 | 0.539 | 3.036 | 0.002 | 0.210 | 0.758 |
| Homophily | Intention to Buy | 4 | 0.370 | 4.681 | 0.000 | 0.222 | 0.502 |
| | Information credibility | 4 | 0.494 | 4.586 | 0.000 | 0.233 | 0.532 |
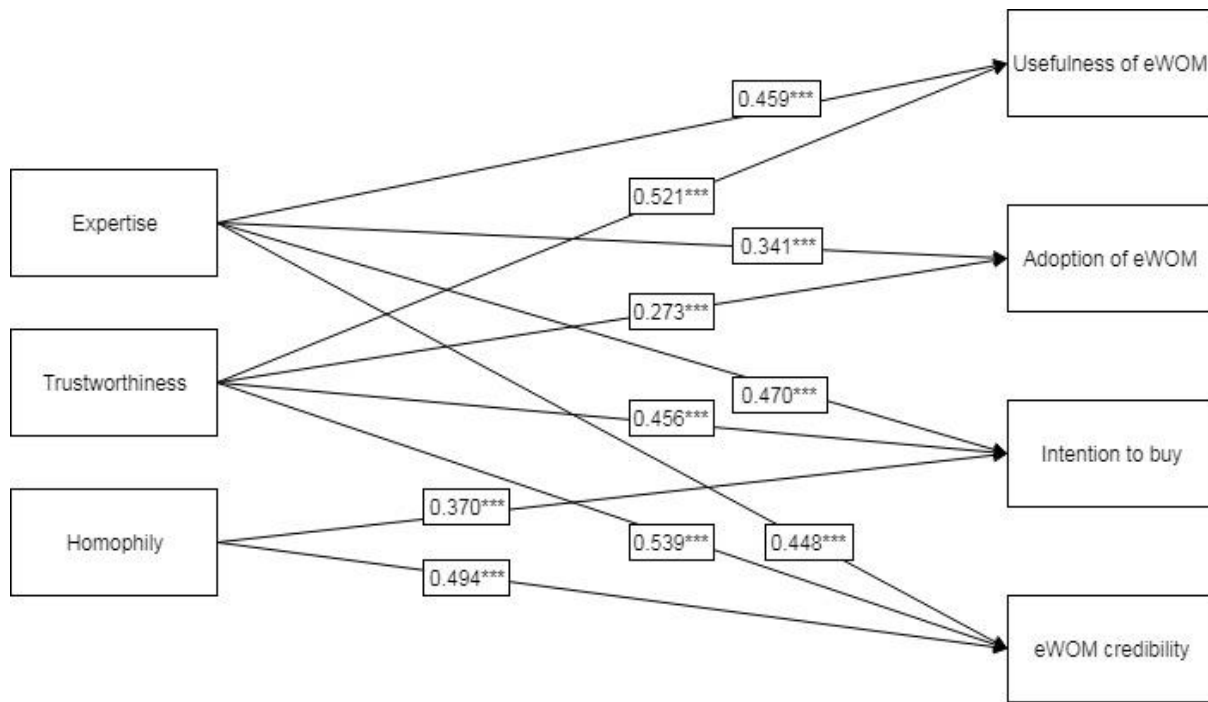
Note: p*<0.05; p**<0.01; p***<0.001

**Figure 2**. Construct correlations

## 5. Discussion

Previous studies on the influence of characteristics of source credibility on consumers' behaviour have provided mixed conclusions (Cheung et al., 2008; Dou et al., 2012; Jamil and Hadnu, 2013; Reimer and Benkenstein, 2016b). This meta-analysis resolves these inconsistencies in the eWOM literature, providing some interesting insights about different characteristics of source credibility.

The findings regarding the relationships between the characteristics of source credibility and consumer's behaviour (see Table 2) show that all the relationships which exist between the constructs are significant. These findings are in accordance with the proposed hypotheses of this study. The most influencing variable affecting intention to buy was source expertise, while the least influencing was homophily.

Hypotheses H1 and H5 investigated the relationships between different dimensions of source credibility and perceived information usefulness. The relationship between source expertise and information usefulness was found to be positive and significant, which is consistent with the dual process theory and some of the previous studies (Filieri et al., 2018b; González-Rodríguez et al., 2016; González-Rodríguez et al., 2016; Jamil and Hadnu, 2013; Lee et al., 2011). For example, Filieri et al (2018b) found that expertise significantly influences perceived information usefulness of eWOM communications in the context of accommodation and restaurants. Similarly, source trustworthiness was found to affect information adoption in a positive and significant way, which is in line with previous research (Jamil and Hadnu, 2013; López and Sicilia, 2014a, López and Sicilia, 2014b). For example, by analysing the data collected from 100 students in Pakistan, Jamil and Hadnu (2013) found that source trustworthiness positively affects information adoption of online product reviews on epinions.com. It can be explained by the fact that consumers use cues, such as degree of expertise of the source and its trustworthiness, to evaluate the usefulness of the provided information. Thus, in the context of eWOM communications source expertise and its trustworthiness matter to the consumer when they assess information usefulness.

Hypotheses H2 and H6 proposed the impact of characteristics of source credibility on information adoption. Based on the analysis, it was found that source expertise affects information adoption. Thus, the higher the perceived level of source expertise the higher the probability that the receiver of the information will devote significant cognitive resources to process the provided information with little scepticism (Wang et al., 2007). The results are in line with previous research (Cheung et al., 2008; Fang, 2014; Lis, 2013). For instance, Lis (2013) found that source expertise positively affects information adoption of online product reviews. Similar results were received for source trustworthiness, which was found to have a significant positive impact on information adoption. Cheung et al. (2008), using data

collected from 154 users who had experience with openrice.com online community, found that trustworthiness of the information source has a positive significant impact on adoption of online reviews about restaurants. Thus, an expert source, perceived as having greater awareness and knowledge of the discussed products/services, will positively influence information adoption.

Hypotheses H3, H7 and H9 tested the impact of different characteristics of source credibility on intention to buy. It was found that source expertise affects purchase intention - if the receiver perceives the information source to have a high level of expertise, the higher the probability that they will be influenced by the provided eWOM communications. The findings are in line with previous studies (Park and Kim, 2008; Saleem and Ellahi, 2017, Zainal et al., 2017). For example, Saleem and Ellahi (2017) found that source expertise significantly and positively influences intention to purchase fashion products by analysing data collected from 503 Facebook users in Pakistan. Also, we find support for relationships between source trustworthiness and intention to buy, which are in line with some of the previous studies (Dou et al., 2012, Zainal et al., 2017). The relationship between homophily and intention to buy was also found to be significant, supporting results of previous research (Fan and Sun, 2012; Filieri et al., 2018b; Saleem and Ellahi, 2017; Shang et al., 2017). The findings can be explained by the fact that when making purchase decisions, individuals may prefer eWOM communications from people who have similar experiences, viewpoints, and preferences (Filieri et al., 2018b; Ruef et al., 2003). The above findings support the importance of source credibility as evidenced in traditional WOM communications (Gilly et al., 1998), attribution theory in advertising, and eWOM literature (Filieri et al., 2018b; Zhang et al., 2014).

Hypotheses H4, H8 and H10 investigated relationships between source credibility characteristics and information credibility. It was found that expertise affects information

credibility – a receiver will consider information credible if it came from a knowledgeable and experienced source (Bansal and Voyer, 2000). The findings are in line with the research conducted by Lis (2013) and Fang (2014). It was also found that source trustworthiness has an impact on information credibility, which is similar to the findings of Lis (2013) and Shamhuyenhanzva et al. (2016). A receiver considers information provided by a trustworthy source as credible as it shows a high degree of objectivity and sincerity. Additionally, it was found that source homophily has a positive and significant relation with information credibility. A greater homophily between sender and receiver of the information has a positive effect on the sender's influence (Gilly et al., 1998), thus people tend to trust information, which comes from people who have similar values. The findings support the importance of source credibility as evidenced in source-credibility model and eWOM literature (Chang and Wu, 2014; Luo et al., 2014; Luo et al., 2015).

Based on the results it can be concluded that characteristics of source credibility play an important role in consumer's perception of information credibility and usefulness, intention to buy, and information adoption. These results advance our understanding of the links between characteristics of source credibility and consumers' behaviour.

## 5.1 Contribution to theory

Findings of this study provide a number of contributions to theory. This meta-analysis adds to existing knowledge regarding the influence of source characteristics on consumers' behaviour. Based on this research, scholars can deduce the type of variables to be selected for analysing the impact of different characteristics of source credibility on consumer's behaviour. The findings can be considered as a guideline for future constructs and can be analysed to study their performance. Additionally findings from this research can visualise the point of convergence and divergence, which will allow developing future questions which

can be investigated in the general context. It was found that it is important to consider different dimensions of source credibility, as they all contribute to affecting consumers' behaviour. The study provided a consolidated view of the effects of trustworthiness, expertise, and homophily, and the way in which perceived credibility affects perception and impact of eWOM communications, helping to advance understanding of information processing.

## 5.2 Implications for practice

Findings from this study provide some useful implications for practitioners, which can enhance the consumer decision making process. As it was found that all dimensions of source credibility significantly influence consumer behaviour, platform operators should make information regarding message source available, as it can help a receiver to judge credibility. It is important for platform administrators to ensure that reviewer profile pages contain visible information that clearly provide details about a reviewer's credibility in terms of their expertise, trustworthiness, likes and dislikes. Also, additional information such as background, occupation, age or geographical locations of the reviewer could be added. This type of information should be provided next to the review so that the reader can make inferences about a reviewer's credibility and their similarity (homophily). Additionally, managers of digital channels should provide users with a level of functionality which allows them to easily track the message source and view a history of their comments and reviews (Levy and Gvili, 2015).

Taking into consideration that reviewer expertise was found to be one of the important factors affecting consumer decision making, platform managers should provide additional information on reviewer profiles to signal levels of expertise for a specific product/service (Filiery et al., 2018a). For example, ranking systems can be used to appraise reviewers'

experience with the product/service, which could be measured in terms of number of reviews provided before or helpful votes awarded (Filiery et al., 2018b). Also, website providers can introduce a badge such as "reviewer of the month" or "expert" to provide additional clues about levels of expertise of the information source for consumers (Lis, 2013).

Additionally, marketers should build a good community atmosphere with community homophily. Each eWOM community should develop several eWOM senders with high levels of expertise, which will contribute to perceived information usefulness and credibility, information adoption and purchase intention (Fan and Sun, 2012).

Finally, due to the increasing number of fake online reviews which can decrease credibility of eWOM communications, it is recommended that website managers invest in fraud management software. Website administrators can also allow users to report any suspicious reviews (Filiery et al., 2018a). A function which allows evaluating and commenting on the reviews will help customers to exchange opinions about the quality and credibility of the eWOM communications.

Based on the results of this research it is suggested that by providing more cues, which will help users to judge expertise, trustworthiness, and homophily of the communication source, platform managers can enhance information adoption and intention to buy. As a result, this study provides practical guidance for marketers based on detailed analysis of specific factors influencing consumers' behaviour, which will enhance marketing activities.

## 6. Conclusion

This research provides a synthesis of findings from previous studies on eWOM communications by using meta-analysis. Particularly, this study investigated how characteristics of source credibility, such as source expertise, trustworthiness and homophily

influence intention to buy, perceived usefulness and credibility of eWOM communications, and information adoption. It was found that all proposed relationships performed satisfactorily under meta-analysis.

## 6.1 Limitations and future research directions

This study is subject to several limitations that are common to meta-analysis studies. First, this meta-analysis is limited by the availability of information and the quality of the original studies. Second, this research validated the proposed hypotheses between the characteristics of source credibility and consumers' behaviour. However, all variables in the model were evaluated separately. Future research should test these characteristics together using regression based meta-analysis structural equation modelling technique. Third, the study does not take into consideration the impact of moderating variables due to insufficient studies on moderating effects to perform meta-analysis. Fourth, due to the insufficient number of studies on the relationships between homophily and eWOM usefulness, and homophily and information adoption, the current study was unable to include them in the meta-analysis. Thus, it is recommended that future studies continue to investigate the relationships between these dependent and independent variables. Lastly, studies for this research were only collected from EBSCO, Web of Science, and Scopus, which may have limited the number of studies available for meta-analysis. Future research can use a wider range of databases. Despite the mentioned limitations, this is the first meta-analysis study investigating the impact of the characteristics of source credibility on consumer behaviour which provides a consolidated view of the impact of different dimensions of source credibility on consumers' behaviour, improving the current state of knowledge of online information processing.

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**Appendix 1**

Summary of studies used for meta-analysis

| Study | Factors investigated | Method(s) of analysis | Sample | Country | Context |
|---|---|---|---|---|---|
| Baber et al. (2016) | Speaker's trustworthiness, speaker's expertise, speaker's experience | SEM, surveys | 251 internet users | Pakistan | Electronic products |
| Cheung et al (2008) | Relevance, timeliness, accuracy, comprehensiveness, source expertise, source trustworthiness | Survey, SEM | 154 users who has experience with Openrice.com (online customer community) | China | Restaurants/ Openrice.com |
| Cheung et al. (2009) | Argument strength, recommendation framing, recommendation sidedness, source credibility, confirmation with prior belief, recommendation consistency, recommendation rating | online survey method, SEM | 159 Users of forum myetone.com | China | Consumer discussion forum (www.myetone.com) |
| Chu and Kim (2011) | Tie strength, homophily, credibility, normative influence, informational influence | Online survey, SEM | 363 undergraduate students | USA | SNS websites |
| Fan and Sun (2012) | Homophily, tie strength, expertise of source, credibility, expertise of seekers, hedonic motivation, perceived search facility, intention to purchase | Questionnaire, regression analysis | 263 respondents | China | Online communities |
| Fang (2014) | Source expertise, task attraction, argument strength, recommendation rating, perceived credibility, adoption | Questionnaire, PLS | 445 Facebook users | Taiwan | Facebook |
| Filieri et al. (2018b) | Two-sided reviews, source trustworthiness, source expertise, source homophily, e-retailer's recommendation, service popularity, information helpfulness, purchase intention | Online questionnaire, SEM | 570 respondents | Hong Kong | Accommodations and restaurants |
| Hill et al. (2017) | Trustworthiness, attractiveness, expertise, intention to purchase | Experimental surveys, MANCOVA | 144 undergraduate students | Australia | Travel soap, travel luggage, video blogs |
| Ho and Chien (2010) | Expertise, trustworthiness, attractiveness, credibility, intention to buy | Questionnaire, regression analysis | 471 respondents | NA | Food blogs |
| Hwang et al. (2018) | Completeness, relevancy, flexibility, timeliness, expertise, trustworthiness, user satisfaction, intention to purchase, | Online survey, PLS | 179 respondents | NA | Hotels/TripAdvisor |
| Lis (2013) | Expertise, intention to buy, credibility, information adoption, trustworthiness, homophily | Survey, SEM | 634 respondents | Germany | Online reviews about products |

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|---|---|---|---|---|---|
| López and Sicilia (2014a) | Trustworthiness, usefulness, valence, volume | Online survey, regression analysis | 176 users of tourism services | NA | Tourism services |
| López and Sicilia, (2014b) | Trustworthiness, usefulness, opinion seeking behaviour, opinion giving behaviour | Online survey, SEM | 325 Users of Spanish travel forums | NA | Tourism services |
| Munzel (2016) | Identity disclosure, consensus information, persuasion knowledge activation, trustworthiness, purchase intention, avoidance intention | experimental surveys, ANCOVA, correlation analysis | 390 users of Amazon Mechanical Turk | NA | Online reviews |
| Reimer and Benkenstein (2016b) | Trustworthiness, intention to buy, valence, scepticism | Online surveys, regression analysis | 158 dental patients | Germany | Dental services |
| Saleem and Ellahi (2017) | Involvement, purchase intention, homophily, expertise, trustworthiness, informational influence, Facebook usage intensity | Survey, regression analysis | 503 respondents | Pakistan | Fashion products/Facebook |
| Shang et al. (2017) | Homophily, intention to buy, utilitarian value, hedonic value, toe strength, trust, normative influence, information influence, self-presentation, customer resonance | Survey, PLS | 392 respondents | Taiwan | Mobile/Facebook |
| Wang et al. (2007) | Need-information congruence, helpfulness indicator, status indicator, concentration of past information provision, information helpfulness, expertise, trustworthiness, adoption | Experimental survey, MANOVA, SEM | 341 students | Singapore | Hotels |
| Wu and Lin (2017) | Usefulness, attitude, purchase intention, trustworthiness | Experimental survey, SEM | 231 students | USA | Laptops |
| Zainal et al. (2017) | Attitude, expertise, trustworthiness, intention to buy | Survey, regression analysis | 280 respondents | Malaysia | Tourism |