Received 8 September 2017
Revised 21 November 2017
30 January 2018
20 February 2018
21 February 2018
Accepted 22 February 2018

Teenagers' eWOM intentions: a nature vs nurture perspective

Anubhav Mishra
Indian Institute of Management Ranchi, Ranchi, India
Satish S. Maheswarappa
Indian Institute of Management Tiruchirappalli, Tiruchirappalli, India
Moutusy Maity
Indian Institute of Management Lucknow, Noida, India, and
Sridhar Samu
Great Lakes Institute of Management, Chennai, India

Abstract

Purpose – The purpose of this paper is to examine the influence of parents (via family communication patterns) on teenagers' electronic word-of-mouth (eWOM) intentions, via a serial mediation by internet usage and self-esteem, along with the moderating effect of online impression.
Design/methodology/approach – A conceptual model was developed based on the nature vs nurture perspective and theory of consumer socialization. Structural equation modeling was applied to investigate the interplay among proposed variables, using a sample of 797 teenage respondents in India.
Findings – The findings indicate that family communication, internet usage, and self-esteem are significant antecedents to eWOM intents of teenagers. Also, online impression is a strong moderator which influences whether teenagers would engage in eWOM activities or not.
Research limitations/implications – This study presents actionable items for marketers interested in teenage consumers in an emerging economy. Marketers can benefit by tailoring their online communication to influence parent's attitude toward the internet and to enhance online impression of teenagers to substantially increase eWOM dispersion.
Originality/value – This study provides original insights about how parents and individual characteristics act as antecedents and impact teenagers' eWOM intentions including the moderating effect of online impression.

Keywords Consumer behaviour, Internet, India, Surveys, Quantitative methods, Socialization
Paper type Research paper

1. Introduction

Prior research has shown that people discuss, communicate, and share their views about products and consumption experiences on digital platforms leading to the creation and transmission of electronic word-of-mouth (eWOM) which significantly affects consumer decisions (Abubakar *et al.*, 2016; King *et al.*, 2014). Broadly, the eWOM literature focuses either on its antecedents or consequences and mostly investigates the adult population (Chan and Ngai, 2011). The consequences of eWOM influence are parameters such as revenues, sales, and product adoption (e.g. Hennig-Thurau *et al.*, 2014), whereas antecedents include motivations (e.g. psychological and behavioral characteristics) of eWOM participation (Cheung and Lee, 2012). This study explores the antecedents of eWOM behavior of teenagers[1], who represent a critical consumer segment with enormous purchasing power (Sommer, 2012).

Previous studies have identified many important antecedents to eWOM behavior (Chan and Ngai, 2011), which can be categorized into nature (individual) or nurture (family or social environment) categories. The "nature" perspective emphasizes the prominence of genetics and heredity, personality, and psychological well-being (Archontaki *et al.*, 2013), whereas the "nurture" perspective posits that socialization agents like parents (operationalized as family communication patterns (FCP)), peers, and mass media influence behavioral, psychosocial, and consumption outcomes in teenagers (Mascarenhas and Higby, 1993; Moschis *et al.*, 1984; Schrodt *et al.*, 2008).

Marketing Intelligence & Planning
Vol. 36 No. 4, 2018
pp. 470-483

0263-4503
DOI 10.1108/MIP-09-2017-0186

Though we find extensive literature on eWOM, a key research gap exists on the role of parents who are one of the most important influencers of children's development (Mishra *et al.*, 2017). Similarly, the impact of personality traits such as self-esteem and online impression which are crucial to teenagers' eWOM intent remain underexplored (Valkenburg and Peter, 2008). Therefore, the research objectives of this study are twofold. This study aims to:

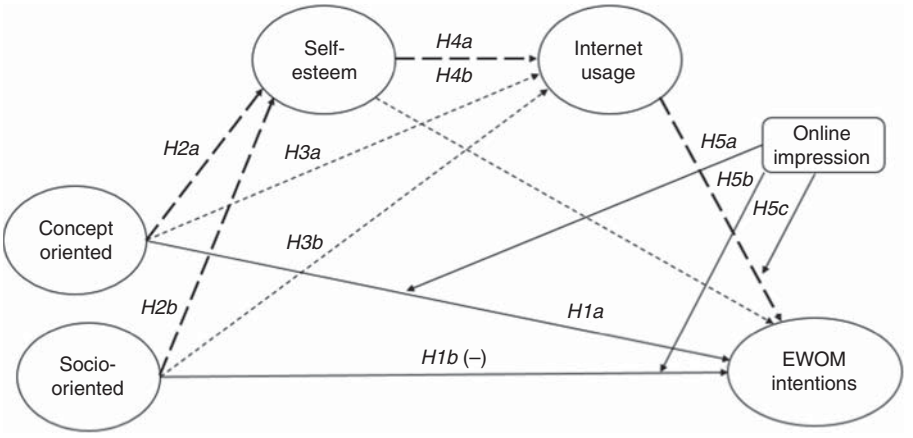
(1) utilize a nature/nurture perspective to provide an in-depth understanding of how socialization agents (parents) influence teenagers' eWOM intentions; and

(2) determine how self-esteem and online impression influence teenager's eWOM behavior.

In this way, this research makes several important contributions to the existing literature. First, this research proposes and establishes the presence of a complex relationship between FCP and eWOM via serial mediation (through self-esteem and internet usage). Second, the moderating effect of online impression confirms the importance of adolescents' identity management in an online environment. While parents are important, their influence on eWOM depends on teenagers' concerns about online image. Third, this study extends prior work in the consumer socialization area and concludes that socialization is a complicated process where many factors such as parents and personality traits interact with each other to influence teenagers' propensity to engage in eWOM.

2. Conceptual framework and hypotheses

The conceptual model proposed in this study (Figure 1) is based on consumer socialization theory (Moschis *et al.*, 1984), psychosocial theory (Erikson, 1994), and nature vs nature perspective in psychology. Parents are the first contact who influence consumer behavior of children via FCP, which essentially captures the parent-child interactions and communications (Mangleburg and Bristol, 1998; Schrodt *et al.*, 2008). Furthermore, teenagers share creative and entertaining content to enhance their online image among peers to fulfill their identity needs (Erikson, 1994; Oh and LaRose, 2016). This study explores the effects of parents (FCP), self-esteem, internet usage, and online impression on teenagers' eWOM intentions.



Notes: The dashed lines represent mediation paths; the bold dashed lines show the serial mediation via self-esteem and internet usage (*H4a* and *H4b*); online impression acts as a moderator

Figure 1.
Conceptual model

2.1 eWOM

While traditional word-of-mouth (WOM) is limited to face-to-face interactions, eWOM has a wider reach and impact because it is persuasive and omnipresent (Abubakar *et al.*, 2016). Most of the research on eWOM deals with the adult population (Cheung and Lee, 2012; King *et al.*, 2014) and little attention is paid to teenage consumers. Furthermore, in new emerging markets (e.g. India), family structures are rapidly changing from joint to nuclear families because of globalization, growing economy, and concentrated urban development (Singhi and Jain, 2016). India has the second largest number of internet users (462 million) in the world with 17 percent of its adolescent population already using the internet (Statista, 2017). This number is growing and presents an interesting opportunity to investigate the eWOM behavior of teenage consumers.

An important aspect of the teenage period is the issue of "identity crisis" where teenagers confront the questions about who they are and their importance in society (Erikson, 1994). The internet and social media offer opportunities to teenagers to experiment with their identities (Valkenburg and Peter, 2008), where teenagers create desired online profiles and share information to build or enhance their online image (Ellison, 2007). The unprecedented popularity of online streaming services (music and videos) and online games among teenagers further reflects the importance of eWOM for this powerful consumer segment. However, the wide adoption and extensive usage of the internet has raised problems of privacy issues, cyberbullying, and internet addiction, which are creating significant challenges for both parents and children. To counter these concerns, parents monitor online activities of their children and control how long children can use an online medium (Anderson, 2016). Therefore, parents behave as gatekeepers who monitor, control, and influence online activities of children.

2.2 FCP

Parents are one of the most influential socialization agents (Mascarenhas and Higby, 1993), who impact children's consumption behavior (Fan and Li, 2010). The interactions and communication between parents and children have been conceptualized in the theoretical construct of FCP, which is further divided into two distinct dimensions (Kim *et al.*, 2009): concept-oriented communication (COC) and socio-oriented communication (SOC). COC parents encourage children to think as individuals and promote open discussions, whereas SOC parents enforce unquestioned acceptance by children to maintain social harmony (Kim *et al.*, 2009). Furthermore, COC has a positive effect on the traits of self-disclosure and sociability (Huang, 1999), which are considered important antecedents to internet usage and social media (Grace *et al.*, 2015). Therefore, children from COC (vs SOC) families are endowed with traits and attitude to express and share their consumption experiences on the internet. Thus, we hypothesize that:

H1a. COC has a positive influence on eWOM intentions.

On the contrary, SOC is positively associated with shyness and self-monitoring (Huang, 1999). SOC parents define rules and restrictions to limit children's internet usage, monitor, and control the information disclosed by children (Youn, 2008), and often regulate the online activities of children. Such restrictions and continuous monitoring will have an adverse effect on children's eWOM activities. So, we hypothesize that:

H1b. SOC has a negative influence on eWOM intentions.

2.3 Mediating role of self-esteem

Children's behavior and personality development is a function of social, cultural, and economic contexts, and parenting intervenes in these interactions (Collins *et al.*, 2000). Prior research in communication area suggests that FCP influence the behavioral,

psychosocial, and information processing outcomes (Schrodt *et al.*, 2008). The supportive communication (COC) leads to a higher self-esteem, whereas restrictive communication (SOC) lowers self-esteem among children (Huang, 1999). Children are more likely to have higher self-esteem when parents are conversation-oriented (Rangarajan and Kelly, 2006). COC parents build positive affect where children experience positive moods as they can follow their interests, but SOC leads to anxiety and stress in children which reduces their self-esteem (Schrodt *et al.*, 2008). Self-esteem is a significant predictor of WOM behavior (Berger, 2014). Similarly, people with high self-esteem are more likely to share and discuss their experiences online to feel good about themselves (Angelis *et al.*, 2012). This behavior is explained by the self-enhancement theory, which states that people fulfill their intrinsic motivations of feeling good about themselves by creating a positive self-image, which further reinforces their self-esteem. People who evaluate themselves high are more likely to spread eWOM with a purpose of helping others (Cheung and Lee, 2012). When people do not consider themselves worthy, they lack the motive of sharing information for serving the public good (Kim and Davis, 2009). Similar behavior is observed among teenagers where teenagers with high self-esteem are more likely to embrace the online platforms to share and express themselves (Steinfield *et al.*, 2008). Self-esteem impacts eWOM behavior because it implicitly affects the self-control and sensation-seeking behavior in an online environment (Kim *et al.*, 2009). We notice that distinct styles of communications from parents lead to the varying development of self-esteem in children, which intervenes in the process of how FCP influence eWOM. Therefore, parental communication has a direct influence on eWOM coupled with the indirect effects via self-esteem. Thus, we hypothesize that:

H2. Self-esteem mediates the relationship between (a) COC and eWOM intentions, and (b) SOC and eWOM intentions.

2.4 Mediating role of internet usage

Internet usage is measured as the amount of time teenagers spend on the internet using devices like computers or smartphones. COC and SOC parents have opposite viewpoints and strategies toward children's access and usage of media. For example, children in COC (vs SOC) families get more time to watch TV (Bristol and Mangleburg, 2005). In contrast, SOC parents are more likely to make strict rules on internet usage and how much information children can disclose online (Youn, 2008). To control and monitor children's online activities, SOC parents do co-surfing with children. Furthermore, parents worry about information disclosure by their children on the internet (Anderson, 2016) as misuse of private information risks children's online safety. Teenagers from COC (vs SOC) families are relatively better prepared about online privacy as they receive appropriate and relevant information from their parents (Youn, 2008). This is another reason why children from COC families get more time to spend online. Therefore, FCP has a significant influence on teenagers' internet usage.

Prior research provides some evidence on how time spent on the internet is associated with eWOM behavior. There is a significant positive association between the metadata-seeding behavior (e.g. tags, ratings, and comments) of adolescents and the duration and frequency of their internet usage (Courtois *et al.*, 2009). Teenagers are exposed to eWOM content in the form of online ads or posts shared by peers on social media. When teenagers spend more time online, they tend to share, forward, or reply to the eWOM content under peer pressure or just to be part of the ongoing online discussion (Mishra *et al.*, 2017). Therefore, we argue that the effects of FCP on eWOM depend on the internet usage. Other than the support from parents, teenagers will engage in eWOM activities only if they are allowed to access and spend sufficient time on the internet. Hence, it is hypothesized that:

H3. Internet usage mediates the relationship between (a) COC and eWOM intentions, and (b) SOC and eWOM intentions.

The aforementioned discussion suggests that self-esteem and internet usage are intervening factors in the relationship between FCP and eWOM. Past research further provides evidence that internet usage is a function of personality traits (e.g. self-esteem). People with low self-esteem spend more time on the internet as an escape route to avoid direct social interactions (Kraut *et al.*, 2002). On the contrary, people having high self-esteem monitor their internet usage and display lower risks of internet addiction (Kim and Davis, 2009). Therefore, we argue that FCP is related to eWOM intentions through self-esteem first and then internet usage. Advancing the earlier arguments and integrating the two mediation hypotheses via self-esteem and internet usage, we propose a serial mediation and hypothesize that:

H4. Self-esteem and internet usage sequentially mediate the relationship between (a) COC and eWOM intentions, and (b) SOC and eWOM intentions.

2.5 Moderating role of online impression

Impression management is a vital function of WOM behavior (Berger, 2014). People share views and information online to reflect their aspirations and preferences (e.g. discussion on an upcoming movie or a smartphone). Teenagers are virtually connected with their friends, family, and others in the online world (Anderson, 2016). They have many interesting options to create a desired representation of themselves on social media by using images and innovative descriptions (Ellison, 2007). The content on social media acts as cues, which enables others to form opinions about people. As discussed earlier, adolescents from COC families (vs SOC) are more confident to share their views online, but whether the content improves their online reputation or not may determine the quantity and quality of shared content (Courtois *et al.*, 2009). Similarly, adolescents from SOC families may get limited access to the internet. But, if they are eager to build a positive image among online peers, they may utilize the internet to search and post content which they find impressive and potentially benefitting their online reputation (Cheung and Lee, 2012). While sharing appropriate content enhances one's image, sharing any content which is deemed inappropriate can undermine one's reputation. As a result, adolescents will put extra efforts in finding content that can help in achieving the goal of impression management (Oh and LaRose, 2016). Therefore, online impression is an important aspect which influences what teenagers would like to share on the internet. Thus, we hypothesize that:

H5a. COC has a greater impact on eWOM intentions among teenagers with higher (vs lower) online impression motivations.

H5b. SOC has a greater impact on eWOM intentions among teenagers with higher (vs lower) online impression motivations.

H5c. Internet usage has a greater impact on eWOM intentions among teenagers with higher (vs lower) online impression motivations.

3. Methodology

3.1 Overall approach

We followed a similar approach used in prior research dealing with consumer socialization and teenagers (e.g. Bristol and Mangleburg, 2005; Fan and Li, 2010) where data were collected from school students. We prepared a questionnaire based on previously validated measurement items from previous research.

3.2 Instrument development

We adopted multi-item measures from the existing literature and modified some of the statements to suit the study context (see Table AII). We used a four-item instrument from

the work of Moschis *et al.* (1984) to measure socio- and COCs, a four-item instrument from Boush *et al.* (1994) and Rosenberg (1989) to measure self-esteem. The main construct of eWOM intentions was measured using six statements based on the behavioral intentions instrument by Venkatesh *et al.* (2003). The eWOM intentions scale included statements on intentions to generate as well as to transmit eWOM. We provided few examples to explain and clarify the general meaning of eWOM to our participants (e.g. discussion about movies, shopping, restaurants, purchasing gifts, and sports equipment on the internet and social media). All items were measured on a seven-point Likert scale. In addition, we measured several control variables such as student's age, grade, number of family members, profession/job of parents (e.g. private, government, and professional), and family type (e.g. single parent, nuclear, and joint family). We also controlled for whether a respondent: has a social media profile (yes/no), uses instant messaging apps (yes/no), and has an e-mail account (yes/no). A pre-test was conducted with 50 respondents to ensure clarity of statements and verify whether the sample population (teenagers) was able to understand the measures correctly.

3.3 Sample and data collection

The relevant sampling frame for this study is teenagers, so we collected data from school students (e.g. Fan and Li, 2010). Before administering the final survey, relevant ethics approval and permissions were obtained from an institutional committee and school authorities. The printed questionnaires were given to the students from six English medium schools from different regions in India (four schools from North India and two schools from South India). Students were informed about the purpose of the research and were assured of anonymity. Students were from Grades 8 to 12 and many of them were the active users of the internet and social media. The school administration and staff assisted in distributing and collecting the printed survey.

Overall, 908 students participated and completed the printed questionnaires in a classroom setting. A total of 797 useable responses were used in the final analyses. The average age of students was 14.8 years and the sample included 42.2 percent females (see Table AI).

4. Data analysis and results

A partial least square (PLS) approach for structural equation modeling (SEM) was used for data analysis because it was suited for predictive applications, and more importantly, the latent variable scores were required for further mediation analysis (Hair *et al.*, 2016). SmartPLS 3.2.4 software was used for PLS-SEM analysis (Ringle *et al.*, 2015). The multi-group analysis (MGA) approach was used for the moderation analysis and the mediation analysis was done using PROCESS tool (Hayes, 2013).

Since this study uses survey data, we evaluated the potential problem of common method variance (CMV) (Podsakoff *et al.*, 2003). The respondents were assured of anonymity and no personal information was collected. The Harman's single-factor test revealed that the first-factor accounts for only 22.6 percent of the total variance. Also, we used the marker-variable technique and found that the difference between the original and CMV-adjusted correlations was very small (less than 0.03) for all the relevant constructs (Lindell and Whitney, 2001). Thus, we conclude that the CMV biases are not substantial.

4.1 Measurement model

The measurement model was evaluated by determining composite reliability (CR), item reliability, convergent and discriminant validity. Using bootstrapping procedure with 5,000 resamples, all the outer loadings of constructs were found to be statistically

significant (Table AII). The values of CR index were above the recommended value of 0.7 and the values of average variance extracted (AVE) were above the recommended value of 0.5 (Hair *et al.*, 2016), which confirmed the satisfactory reliability for the latent variables.

For discriminant validity, we observed that each indicator's loading was higher than all of its cross-loadings with other latent variables. Also, the square root of the AVE for each construct was greater than the inter-construct correlations (Fornell and Larcker, 1981, Table AIII). Thus, the reliability and validity of the constructs were established.

4.2 Structural model

The structural model was estimated using the bias-corrected and accelerated bootstrapping procedure with 5,000 resamples. The Q^2 value (0.044) for the predictive relevance of model was within acceptable levels (Hair *et al.*, 2016). To assess the overall model fit, the standardized root mean square residual (SRMR) was used as an index for model validation. The values below 0.08 are considered favorable (Hu and Bentler, 1999). The model estimation with PLS provided SRMR value of 0.067, and the estimation with PLS provided SRMR value of 0.045, which indicates an overall acceptable goodness-of-fit of the model.

The PLS results for the hypothesized relationships are given in Table I. The COC has a significant positive relation with eWOM (*H1a*: $b = 0.12$, $p < 0.01$), and SOC has a negative (marginally significant) association with eWOM (*H1b*: $b = -0.10$, $p < 0.10$). Also, self-esteem ($b = 0.1$, $p < 0.01$) and internet usage ($b = 0.12$, $p < 0.01$) have a significant positive relationship with eWOM.

4.3 Mediation analysis

The serial mediation was tested using PROCESS (Hayes, 2013; Model 6) with the latent variable scores obtained from PLS analysis along with age as a covariate (Table I). The mediation via self-esteem and internet usage for the relationship between SOC and eWOM is not significant due to the presence of 0 in the confidence interval. But in case of serial mediation, the lower limit of confidence interval (CI = [0.000, 0.002]) ends at 0, which suggests possibility of partial serial mediation (*H4b*).

Further, self-esteem mediates the relationship between COC and eWOM. However, the indirect effect of COC on eWOM via internet usage is not significant, partly because of the absence of a significant effect of COC on internet usage. The overall sequential mediation via self-esteem and internet usage is significant and negative. The negative sign is due to the

A. Structural model (PLS-SEM)

Relationship	Direct (indirect) effects	Total effects	Result
H1a: Concept-oriented → eWOM	0.12**(0.02****)	0.14***	Supported
H1b: Socio-oriented → eWOM	−0.10****(−0.01)	−0.11****	Supported

B. Mediation analysis (PROCESS)

Relationship	Indirect effects	Bootstrap 90% CI	Result
H2a: Concept-oriented → Self-esteem → eWOM	0.014	0.006, 0.027	Supported
H2b: Socio-oriented → Self-esteem → eWOM	−0.006	−0.016, 0.001	Not supported
H3a: Concept-oriented → Internet usage → eWOM	0.005	−0.002, 0.015	Not supported
H3b: Socio-oriented → Internet usage → eWOM	−0.003	−0.012, 0.004	Not supported
H4a: Concept-oriented → Self-esteem → Internet usage → eWOM	−0.002	−0.004, −0.001	Supported
H4b: Socio-oriented → Self-esteem → Internet usage → eWOM	0.001	0.000, 0.002	Supported

Table I.
Results for various analyses

Notes: R^2 (self-esteem) = 0.15; R^2 (internet usage) = 0.11; R^2 (eWOM) = 0.49. CI, confidence interval, obtained with 10,000 resamples, *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; ****$p < 0.10$

negative association between self-esteem and internet usage ($b = -4.613$, $p < 0.01$). This is similar to the earlier findings on the adult population, where people spent more time on the internet to compensate for their low self-esteem (Kraut *et al.*, 2002). Also, the contrast analysis of these mediation effects indicates that mediation via self-esteem alone is significantly higher than the serial mediation via self-esteem and internet usage (CI = [0.007, 0.033]).

The effect size for mediation analysis was calculated in two ways. First, the ratio of the indirect effect to the total effect (mediation ratio) $P_M = (0.018/0.105) = 0.171$, signifies that 17.1 percent of the total effect of COC on eWOM is mediated by self-esteem and internet usage. Second, the ratio of indirect effect to the direct effect $R_M = (0.018/0.087) = 0.21$, indicates that the total indirect effect is roughly one-fifth of the direct effect. Though it should be noted that the total indirect effect is the sum of specific indirect effects and one of the indirect effects (via serial mediation path) has a negative sign. In such cases, there are no clear guidelines on interpreting the proportion-based effect sizes (Preacher and Kelley, 2011).

4.4 Moderation analysis

To test the moderating effects of online impression, a MGA was performed in SmartPLS, which calculates the differences in path coefficients between the two selected groups. The result is considered significant at 5 percent level if the p-value is either smaller than 0.05 or greater than 0.95 (Hair *et al.*, 2016). The results show that online impression moderates two of the three hypothesized relationships. Adolescents from COC families display relatively higher eWOM intentions in high (vs low) online impression condition (*H5a*: $p = 0.96$). However, online impression does not moderate the relationship between SOC and eWOM (*H5b*, $p = 0.37$). Interestingly and in contrast, adolescents with similar internet usage report lower eWOM intentions in high (vs low) condition. (*H5c*: $p = 0.03$). This means that even if teenagers are spending more time on the internet, they do not display proportionately higher eWOM intents.

5. Discussion

The purpose of this study was to explore and investigate the effects of socialization agents (i.e. parents), self-esteem and online impression on teenagers' eWOM intent. The findings of this study are in line with the two main research objectives. The analysis reaffirms the complex interplay among distinct factors representing nature (individual-level factors like self-esteem and internet usage) and nurture (parents) perspectives. The two types of parent-child interactions (communication patterns) have significant but opposite effects on eWOM intent. COC positively affects eWOM and its effects are routed via serial mediation by self-esteem and internet usage. However, SOC is negatively related to self-esteem, internet usage, and eWOM. We find that SOC has a negative but insignificant effect on internet usage, which shows that control strategy of parents is somewhat successful in reducing the time their children spend on the internet. Interestingly, SOC significantly reduces the eWOM intentions, probably because parents are watching what teenagers are sharing online (Youn, 2008), hence resulting in low eWOM. We also notice that relationship between SOC and self-esteem is negative in direction, but it is not significant, which is opposite to findings in past research (Huang, 1999). Perhaps, it indicates that regardless of discouraging environment at home, today's teenagers can gather support from their peers or other avenues like the internet where they can compensate for their low self-esteem. Another possible explanation is that India is a collectivistic society, where teenagers are more likely to be part of a peer group, which takes care of their social and emotional needs.

The findings further suggest that adolescents who have a positive view of themselves (high levels of self-esteem) are more likely to share eWOM content about their consumption behavior and experiences. Teenagers who spend more time on the internet display higher propensity to create or share eWOM. Furthermore, the results assert the importance of

online impression for teenagers, which acts as a moderator in key relationships leading to eWOM. The interesting moderating results hint that higher internet usage leads to higher eWOM intentions, but this direct relationship is moderated by the perceived importance of online reputation. Adolescents may be spending a lot of time on the internet, but concerns for good online reputation determine the creation or sharing of eWOM. Perhaps, the prominence of a good online image explains why teenagers prefer new social media platforms like Instagram and Snapchat over Facebook (IANS, 2017).

5.1 Theoretical implications

This study utilizes the psychology research perspective of nurture (family communications and internet usage) and nature (self-esteem and online impression) to investigate the complex interplay between the two ideologies and how they influence the eWOM intentions of teenagers.

First, from a nurture perspective, the two distinct parenting styles have a significant and opposite impact, which suggests that the potential eWOM activities of teenagers are dependent on the prevailing atmosphere at home. Our research reaffirms the primacy of parents in the context of online behavior (Maccoby, 2007). Similarly, higher internet usage also increases eWOM intent, but the "nature" factors self-esteem and online impression are the other two key intervening characteristics that determine the teenagers' eWOM motivations. Overall, individual factors representing "nature" are more dominant in the context of eWOM. This should not come as a surprise as the teenage period is often marked with a rebellious attitude and independent thinking, which is clearly reflected in their online behavior.

Second, a majority of consumer socialization research has examined the direct effects of FCP on relevant outcomes (Bristol and Mangleburg, 2005). But, the conclusions in this study from the sequential mediation analysis (for concept-oriented families) and moderation via online impression enunciate the complex and dynamic interactions involved in the socialization process of children. Also, the presence of positive moderation by online impression confirms the importance of a good and well-accepted image for teenagers, which can be attributed to the importance of peers (another socialization agent). In fact, for similar FCP and self-esteem levels, online reputation appears to be the differentiating motivator for teenagers' eWOM participation. The psychosocial development theory (Erikson, 1994) regards adolescence as a crucial stage of development because it is a transition phase from childhood to adulthood. Adolescents' self-esteem plays a major role in their actions leading to the development of a self-image or a distinct social identity (Rosenberg, 1989). Our findings support the relevance of self-esteem and online identity for potential eWOM activities. Hence, the research validates the psychosocial development theory in an online context and makes a meaningful contribution by asserting the importance of "online identity" in the adolescence phase.

Finally, while extensive research exists on the consequences of eWOM and motivations to engage in eWOM (King *et al.*, 2014), this study concentrates on the antecedents that build the essential foundations of the potential eWOM behavior of adolescents. Hence, it addresses a critical research gap on how eWOM behavior of teenagers is determined by social and personal influences. Further, it also contributes to the literature of developmental psychology by asserting the role of parents and personality on teenagers' online behavior.

5.2 Managerial implications

Apart from the academic offerings, this study suggests actionable recommendations for practitioners. Adolescents constitute a vital consumer segment for many industries such as apparels, fast food, online gaming, and electronic gadgets. We provide some meaningful insights into their potential eWOM behavior. The results indicate that higher internet usage leads to higher eWOM intentions, which may further require adolescents to spend more time

on the internet to create or consume eWOM. Thus, we notice a domino effect of the increasing internet usage resulting in higher eWOM intentions. Hence, marketers should focus on having a strong digital presence on relevant platforms where teenagers spend most of their time to induce eWOM activities about their products.

A good online reputation is another important factor that determines the eWOM participation of teenagers. So, online marketing communications should include content that helps in enhancing online image. For example, social cause-related marketing (e.g. the Ice Bucket Challenge) or some innovative challenges (e.g. Mannequin Challenge) can be an integral part of the overall marketing efforts, which have shown higher chances of acceptance among teenagers.

The communication style of parents determines the expected behavior of children. In this study, we find that almost half of the sample population reported the presence of SOC communication patterns among parents. Many Indian parents are skeptical about the internet and do not favor internet usage among their children, except for educational purposes (Soman, 2016). Therefore, marketers should tailor marketing communications to change this mindset of parents. Marketers can modify their communication strategy to convey the benefits of the internet and educate parents about the immense positive possibilities of the internet.

Teenagers across the world are showing more similarities than differences in their behavior and attitude. For example, they display striking similarities in their eating habits, attitude toward aspirational brands, clothing, and online activities such as listening to streaming music and social media usage (Offer *et al.*, 2013). This study is an attempt to identify the antecedents of the adolescents' eWOM behavior in India, and we contemplate that our findings will find equal applicability to adolescents from various cultures and geographies.

5.3 Limitations and further research

This study has some limitations, which offers the opportunity for future research. First, the study is cross-sectional and does not measure the important effects over time. For example, how do eWOM intentions change over a period of time, when one's online image is already established? Therefore, a longitudinal approach in further research can address this issue and strengthen the results. Second, this study administered the survey in English, which is not the native language of Indian teenagers. However, we did collect the data from schools where education is imparted in English. Going forward, we recommend the use of translated instruments in the local/regional language to cover a larger sample to broaden the scope and robustness of the findings. Third, the underlying purpose of using the internet (e.g. academic, entertainment, social bonding, or purchasing products) may influence whether an individual undertakes eWOM activities or not. Adolescents browsing online resources to complete a school project (as compared to making an online purchase) are less likely to do any eWOM activities. This study does not examine this particular aspect of what is the purpose of being online, which can be an interesting research extension. Similarly, from the customer engagement point of view, sharing information of products on social media (e.g. Facebook) among known peers could be different from discussing the product in an online forum or e-commerce website. So, including different types of eWOM in diverse environments can be additional research extensions.

Internet usage is also dependent on the price of accessing the internet. The majority of Indian consumers access the internet through their mobile phones where data usage charges apply (Singhi and Jain, 2016). However, due to fierce competition among telecom firms, disruptive pricing strategies may gradually turn cost barriers insignificant. What happens when the barriers to internet access are removed? Will cheaper and easier access to the internet lead to higher eWOM, or will the exposure to ever-increasing marketing

communications change parents' mindsets? The answers to these questions present interesting and unexplored areas for further research. Finally, in this research, we took the perspective of nature vs nurture, which is a very broad canvas. Going forward, the inclusion of other factors such as heredity (DNA), more personality characteristics (e.g. Big Five personality traits), and the place of internet usage (school vs home) may be investigated in further research.

Note

1. We also refer to teenagers as adolescents or teens in this study.

References

Abubakar, A.M., Ilkan, M. and Sahin, P. (2016), "eWOM, eReferral and gender in the virtual community", *Marketing Intelligence & Planning*, Vol. 34 No. 5, pp. 692-710.

Anderson, M. (2016), "Parents, teens and digital monitoring", available at: www.pewinternet.org/2016/01/07/parents-teens-and-digital-monitoring/ (accessed January 2, 2017).

Angelis, M.D., Bonezzi, A., Peluso, A.M., Rucker, D.D. and Costabile, M. (2012), "On braggarts and gossips: a self-enhancement account of word-of-mouth generation and transmission", *Journal of Marketing Research*, Vol. 49 No. 4, pp. 551-563.

Archontaki, D., Lewis, G.J. and Bates, T.C. (2013), "Genetic influences on psychological well-being: a nationally representative twin study", *Journal of Personality*, Vol. 81 No. 2, pp. 221-230.

Berger, J. (2014), "Word of mouth and interpersonal communication: a review and directions for future research", *Journal of Consumer Psychology*, Vol. 24 No. 4, pp. 586-607.

Boush, D.M., Friestad, M. and Rose, G.M. (1994), "Adolescent skepticism toward TV advertising and knowledge of advertiser tactics", *Journal of Consumer Research*, Vol. 21 No. 1, pp. 165-175.

Bristol, T. and Mangleburg, T.F. (2005), "Not telling the whole story: teen deception in purchasing", *Journal of the Academy of Marketing Science*, Vol. 33 No. 1, pp. 79-95.

Chan, Y.Y. and Ngai, E.W. (2011), "Conceptualising electronic word of mouth activity: an input-process-output perspective", *Marketing Intelligence & Planning*, Vol. 29 No. 5, pp. 488-516.

Cheung, C.M. and Lee, M.K. (2012), "What drives consumers to spread electronic word of mouth in online consumer-opinion platforms", *Decision Support Systems*, Vol. 53 No. 1, pp. 218-225.

Collins, W.A., Maccoby, E.E., Steinberg, L., Hetherington, E.M. and Bornstein, M.H. (2000), "Contemporary research on parenting: the case for nature and nurture", *American Psychologist*, Vol. 55 No. 2, pp. 218-232.

Courtois, C., Mechant, P., De Marez, L. and Verleye, G. (2009), "Gratifications and seeding behavior of online adolescents", *Journal of Computer-Mediated Communication*, Vol. 15 No. 1, pp. 109-137.

Ellison, N.B. (2007), "Social network sites: definition, history, and scholarship", *Journal of Computer-Mediated Communication*, Vol. 13 No. 1, pp. 210-230.

Erikson, E.H. (1994), *Identity: Youth and Crisis*, 7th ed., Norton, New York, NY.

Fan, Y. and Li, Y. (2010), "Children's buying behaviour in China: a study of their information sources", *Marketing Intelligence & Planning*, Vol. 28 No. 2, pp. 170-187.

Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.

Grace, D., Ross, M. and Shao, W. (2015), "Examining the relationship between social media characteristics and psychological dispositions", *European Journal of Marketing*, Vol. 49 Nos 9/10, pp. 1366-1390.

Hair, J.F. Jr, Hult, G.T.M., Ringle, C. and Sarstedt, M. (2016), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd ed., Sage, Los Angeles, CA.

Hayes, A.F. (2013), *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*, Guilford Press, New York, NY.

Hennig-Thurau, T., Wiertz, C. and Feldhaus, F. (2014), "Does Twitter matter? The impact of microblogging word of mouth on consumers' adoption of new movies", *Journal of the Academy of Marketing Science*, Vol. 43 No. 3, pp. 375-394.

Hu, L.T. and Bentler, P.M. (1999), "Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling: A Multidisciplinary Journal*, Vol. 6 No. 1, pp. 1-55.

Huang, L.N. (1999), "Family communication patterns and personality characteristics", *Communication Quarterly*, Vol. 47 No. 2, pp. 230-243.

IANS (2017), "US teenagers love Instagram, Snapchat more than Facebook", *Business Standard*, available at: www.business-standard.com/article/news-ians/us-teenagers-love-instagram-snapchat-more-than-facebook-117042200355_1.html (accessed July 13, 2017).

Kim, C., Lee, H. and Tomiuk, M.A. (2009), "Adolescents' perceptions of family communication patterns and some aspects of their consumer socialization", *Psychology & Marketing*, Vol. 26 No. 10, pp. 888-907.

Kim, H.K. and Davis, K.E. (2009), "Toward a comprehensive theory of problematic internet use: evaluating the role of self-esteem, anxiety, flow, and the self-rated importance of internet activities", *Computers in Human Behavior*, Vol. 25 No. 2, pp. 490-500.

King, R.A., Racherla, P. and Bush, V.D. (2014), "What we know and don't know about online word-of-mouth: a review and synthesis of the literature", *Journal of Interactive Marketing*, Vol. 28 No. 3, pp. 167-183.

Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V. and Crawford, A. (2002), "Internet paradox revisited", *Journal of Social Issues*, Vol. 58 No. 1, pp. 49-74.

Lindell, M.K. and Whitney, D.J. (2001), "Accounting for common method variance in cross-sectional research designs", *Journal of Applied Psychology*, Vol. 86 No. 1, pp. 114-121.

Maccoby, E.E. (2007), "Historical overview of socialization research and theory", in Grusec, J.E. and Hastings, P.D. (Eds), *Handbook of Socialization*, Guildford Press, New York, NY, pp. 13-41.

Mangleburg, T.F. and Bristol, T. (1998), "Socialization and adolescents' skepticism toward advertising", *Journal of Advertising*, Vol. 27 No. 3, pp. 11-21.

Mascarenhas, O.A. and Higby, M.A. (1993), "Peer, parent, and media influences in teen apparel shopping", *Journal of the Academy of Marketing Science*, Vol. 21 No. 1, pp. 53-58.

Mishra, A., Maheswarappa, S.S., Maity, M. and Samu, S. (2017), "Adolescent's eWOM intentions: an investigation into the roles of peers, the internet and gender", *Journal of Business Research* (in press), doi: 10.1016/j.jbusres.2017.04.005.

Moschis, G.P., Moore, R.L. and Smith, R.B. (1984), "The impact of family communication on adolescent consumer socialization", *Advances in Consumer Research*, Vol. 11 No. 1, pp. 314-319.

Offer, D., Ostrov, E., Howard, K.I. and Atkinson, R. (2013), *The Teenage World: Adolescents' Self-Image in Ten Countries*, Plenum Medical Book, New York, NY.

Oh, H.J. and LaRose, R. (2016), "Impression management concerns and support-seeking behavior on social network sites", *Computers in Human Behavior*, Vol. 57, pp. 38-47.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.

Preacher, K.J. and Kelley, K. (2011), "Effect size measures for mediation models: quantitative strategies for communicating indirect effects", *Psychological Methods*, Vol. 16 No. 2, pp. 93-115.

Rangarajan, S. and Kelly, L. (2006), "Family communication patterns, family environment, and the impact of parental alcoholism on offspring self-esteem", *Journal of Social and Personal Relationships*, Vol. 23 No. 4, pp. 655-671.

Ringle, C.M., Wende, S. and Becker, J.M. (2015), "SmartPLS 3. Boenningstedt: SmartPLS GmbH", available at: www.smartpls.com (accessed February 10, 2017).

Rosenberg, M. (1989), *Society and the Adolescent Self-Image*, revised ed., Wesleyan University Press, Middletown, CT.

Schrodt, P., Witt, P.L. and Messersmith, A.S. (2008), "A meta-analytical review of family communication patterns and their associations with information processing, behavioral, and psychosocial outcomes", *Communication Monographs*, Vol. 75 No. 3, pp. 248-269.

Singhi, A. and Jain, N. (2016), "The rise of India's neo middle class", available at: www.livemint.com/Politics/HY9TzjQzljCZNRHb2ejC2H/The-rise-of-Indias-neo-middle-class.html (accessed May 23, 2017).

Soman, S. (2016), "Parental control is on this summer", available at: http://timesofindia.indiatimes.com/city/bengaluru/Parental-control-is-on-this-summer/articleshow/51764566.cms (accessed July 22, 2017).

Sommer, C. (2012), "Purchase power of global teens tops $819 billion", available at: http://insights.mastercard.com/2012/11/21/purchase-power-of-global-teens-tops-819-billion/ (accessed February 2017).

Statista (2017), "The statistics portal", available at: www.statista.com/ (accessed June 23, 2017).

Steinfield, C., Ellison, N.B. and Lampe, C. (2008), "Social capital, self-esteem, and use of online social network sites: a longitudinal analysis", *Journal of Applied Developmental Psychology*, Vol. 29 No. 6, pp. 434-445.

Valkenburg, P.M. and Peter, J. (2008), "Adolescents' identity experiments on the internet consequences for social competence and self-concept unity", *Communication Research*, Vol. 35 No. 2, pp. 208-231.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003), "User acceptance of information technology: toward a unified view", *MIS Quarterly*, Vol. 27 No. 3, pp. 425-478.

Youn, S. (2008), "Parental influence and teens' attitude toward online privacy protection", *Journal of Consumer Affairs*, Vol. 42 No. 3, pp. 362-388.

Further reading

Sweeney, J.C. and Soutar, G.N. (2001), "Consumer perceived value: the development of a multiple item scale", *Journal of Retailing*, Vol. 77 No. 2, pp. 203-220.

Appendix

Characteristic	Category	Frequency	%
Gender	Male	458	57.8
	Female	335	42.2
Total		793	100.0
Age	12 years	55	7.0
	13 years	196	24.8
	14 years	213	27.0
	15 years	117	14.8
	16 years	119	15.1
	17 years	82	10.4
	18 years	8	1.0
Total		790	100.0
Internet usage (hours/day)	0-1	473	59.3
	1-2	195	24.5
	2+	129	16.2
Total		797	100.0

Table AI. Descriptive statistics of sample population

Note: The total sample size is 797, but, not all respondents have reported all characteristics

Measurement items	Factor loading	*t*-value
Internet usage (minutes)	1.00	–
Concept-oriented communication (Moschis *et al.*, 1984)		
My parents ask me what I think about things I do for myself	0.68	5.18
My parents ask me for advice about doing things	0.70	6.15
My parents ask me about things that they do for themselves	0.80	9.93
Socio-oriented communication (Moschis *et al.*, 1984)		
My parents tell me not to do certain things	0.88	3.31
My parents complain when I do something that he/she does not like	0.66	3.11
My parents tell me that I am not allowed to do certain things	0.63	2.08
Self-esteem (Boush *et al.*, 1994; Rosenberg, 1989)		
I feel good about myself as a person	0.73	13.08
I can do many things well	0.80	22.51
I am looking forward to the future	0.74	13.78
I take a positive attitude toward myself	0.78	19.46
eWOM intentions (Venkatesh *et al.*, 2003)		
How likely are you to share or post about such activities on internet?	0.75	25.71
How likely are you to start a discussion about such activities on internet?	0.73	21.80
How likely are you to post your reviews, recommendation or feelings about such activities on internet?	0.79	36.77
If one of your friends has shared or posted about his/her activities, which you like, then how likely are you to share or forward it further on the internet?	0.63	15.86
If one of your friends has shared or posted about his/her activities, then how likely are you to comment on it or participate in further discussion on the internet?	0.73	24.84
If one of your friends has shared or posted about his/her activities, then how likely are you to post your views or feelings about it on the internet?	0.79	34.87

Table AII. Reliability and validity indices for the measurement model

	1	2	3	4	5
(1) Concept-oriented communication	*0.73*				
(2) Socio-oriented communication	0.10	*0.73*			
(3) eWOM intentions	0.13	−0.09	*0.74*		
(4) Self-esteem	0.12	−0.03	0.11	*0.76*	
(5) internet usage	0.04	0.00	0.11	−0.09	Single item

Note: For discriminant validity, the diagonal elements presented in italics are the square roots of AVE

Table AIII. Discriminant validity (Fornell- Larcker criterion)

Corresponding author
Anubhav Mishra can be contacted at: anu.mishra@gmail.com