

The Influence of Internet Celebrity on Purchase Decision and Materialism: The Mediating Role of Para-social Relationships and Identification

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Abstract

The objective of this paper is to examine the influence of internet celebrities on customer purchase decision and materialism, with special attention on parasocial relationships and identification as mediators and how they play a role in celebrity influence on purchase decision and materialism.

413 female students from three universities in Dalian, Liaoning Province, China were sampled randomly using structured questionnaires. Structural equation modelling was used with the help of SmartPls3.

The highlight of the study is the mediating roles of para-social relationships and identification between internet celebrities and purchase decision and materialism. Again, the study portrayed that internet celebrity significantly influence parasocial relationships, whereas parasocial relationships in turn influence identification with the celebrity. More so, identification significantly influences purchase decision and materialism. Furthermore, internet celebrity ultimately influences purchase decision and materialism through the mediating roles of para-social relationships and identification.

The study made available some significant findings for marketers and academics. Marketers can use the internet celebrities as third parties to communicate to their target audience through their blogs and pages on the internet by endorsing their brands. Academics can explore how para-social relationships and identification mediates between internet celebrities and purchase decision and materialism.

To the knowledge of the authors, this study is the first of its kind in an attempt to examine the influence of internet celebrity on purchase decision and materialism using parasocial relationships and identification as mediators.

Keywords- Internet celebrity, Para-social relationships, Identification, Purchase decision and materialism, Structural equation modelling

Paper type: Research paper

DOI: 10.7176/EJBM/11-15-20

Publication date: May 31st 2019

1. Introduction

Boorstin (1961) indicated that, a celebrity is a person who is famous, irrespective of whether the fame was achieved via sports, politics, entertainment, medicine or having a close relationship with other celebrities. Moreover, some findings have established how celebrities influence attitudes of the public, for instance, how consumers behave in their quest to make a purchase (Tripp et al., 1994; Till and Shimp, 1998). Alperstein (1991) indicated that, messages from celebrities are now part of the individual's social construction of reality.

Yue & Cheung, (2000) posited that celebrity worship has become the order of the day amongst young people around the world, especially teenage and adolescent girls. Josselson, (1991) posited that this could arise from the fact that they have the burning desire for intimacy and identification. Moreover, worshipping of celebrities could have a huge influence in the shaping of followers' attitudes, behaviours and values (Schultze et al, 1991).

Celebrities are being revered and held in high regard by female teenagers and adolescents alike (McCutcheon et al, 2002; McCutcheon et al, 2003 and Maltby et al, 2004) and this idolisation of celebrities stem from the fact that

they (celebrities) are seen to be elegant and classy than ordinary individuals. These celebrities often appear to be well groomed by wearing makeup, undergoing cosmetic surgery and wearing elegant clothes. More so, they flaunt their wealth via the cars they own, expensive jewellery and houses.

Teenagers and adolescents females more often than not get tempted to imitate the celebrities they idolised by dressing like them and also purchasing the brands or products endorsed by these celebrities (Austin et al., 2008; Chan et al, 2013). By virtue of celebrities' influence on their followers (Chan & Zhang, 2007; Fraser and Brown, 2002; Wen, 2017), marketers and advertisers alike usually capitalise on this to entreat teenagers and adolescents to purchase and consume products endorsed by their favourite celebrities (Austin et al., 2008; Chan et al, 2013).

Goldberg et al., (2003) posited that teenagers and adolescents adoption of materialistic values goes a long way to have an impact on the balance between private and public choices they often make in their life time. It is very crucial to note that materialism is seen as a negative value by virtue of the fact that it negates interpersonal relationships and it is also related to happiness and subjective well-being in a negative sense (Kasser, 2002). Furthermore, it is also related to material values and has a collective orientation toward family and religious values (Burrough and Rindfleisch, 2002).

According to the generalised social comparison theory, individuals tend to compare the personal materials they possess with the ones owned by prominent individuals to establish their status in society (Saunders, 2001). A point worthy of note is that apart from comparing themselves to their peers, teenagers and adolescents may also compare themselves to celebrities.

In the context of China, studying materialism and celebrity worship is different from the Western way of life. Zhao (1997) argue that as a result of the long standing values regarding families and human relations, mass consumption in Chinese society is quite contrary to that of the Western societies.

Despite the numerous studies in the area of celebrity influence (Chan & Zhang, 2007; Fraser and Brown, 2002; Wen, 2017), celebrity endorsement (Austin et al, 2008; Chan et al, 2013), and celebrity worship (McCutcheon et al, 2002; McCutcheon et al, 2003 and Maltby et al, 2004), there is a gap left to be filled; thus, it is the role internet celebrities play on their followers' purchase decision and materialism through identification and parasocial relationship.

The issue, then, is whether parasocial relationships and identification with the internet celebrity idol contributes to purchase decision and materialism amongst female teenagers and adolescents in China.

2. Literature Review

2.1 Social Influence

Influence as a theory had long been studied by scholars and researchers in the fields of marketing, political science, sociology and communication (Rogers, 1962; Katz and Lazars Feld, 1955). Influence plays a crucial role in our day to day activities and how society operates. For instance, one could see observations on how fashion spreads (Gladwell 2002) and how people vote (Berry and Keller 2003). More so, China is seen as having a high-power distance culture because of its Confucianism background (Looner et al., 1980, Hofstede and Bond, 1988).

Influence leads to social impact, and Latane (1981) defines social impact as an influence exerted on a person's way of thinking, how the person feels or how the person behaves which is triggered by the implied, real, or imaginary existence or activities of others. From this definition, it is apparent that individuals can get influenced by the actions of others in the society to whom they aspire.

Taking the social influence theory into consideration, social influence processes cannot create uniformity of opinion on their own. According to Festinger's (1950) influential theory of group's uniformity pressures, pressures ought to encompass pressures rejection of strays as a contributory process. More so, in the empirical sense, usually, numerous groups have divergence of opinions, which brings about division on basic issues that can be supported factually. Most often, even those on the minority side hold on to their views and try to convince the majority. By this, people can easily be influenced irrespective of where they belong. Latane and Wolf (1981), also stated that the differences between those on the majority side and the minority side basically manifest their different size and status instead of qualitative differences in modes of influence.

2.2 Social Media Unique Attributes

Modern media technologies consist of the Websites, Internet and numerous social media platforms such as Weibo, WeChat, QQ, and Youku in China; whereas in the West, there are Twitter, Pinterest, Facebook, WhatsApp, Instagram and Tumblr. These social media platforms make it easy and quick for users to establish and share what is called user-generated messages and, instant communication with different users on numerous devices held in the hand (Sundar and Limperos 2013). According to Eveland (2003), interactivity is the crucial feature that separates conventional mass media from contemporary social media technologies; it is important to note that, users are both sources and receivers as well, and virtually simultaneous also.

Again, social media users easily get accustomed to technology, and content can revolve around the self. Joinson and Paine (2007) found out that, self-disclosure has long played an important role in computer-mediated communication. This is so because, social media are hugely more personal channels compared to the conservative impersonal mass media. This manifests itself in the crowd of personalized customization of sites, blogs and digitized pictures that portray the self, friends, or strangers a person admires personally on Pinterest, Snap chat, and Instagram with visual story applications (Wortham and Goel, 2013).

Thirdly, Amichai-Hamburger (2007) suggested that, social media platforms provide for people who are like-minded, and therefore homogeneous in nature, whereas mass media presents a wide array of audiences who are heterogeneous; therefore it is no wonder that social media is seen as the media of peers.

Furthermore, according to Sundar et al. (2012), by just providing users of digital communicative technologies the capability to customize, shape and direct interactions online, modern media changes mass media receivers who were previously passive into active communicators, which boost personal agency, autonomy, and self-efficacy.

Last, but not least, Green et al (2004) and Barak (2007) suggested that, social media platforms are viewed as interpersonal procedures that present users with the leverage to use or view videos, animation, and transformative multi-media cues. These cues present emotional presence, providing the user with an opportunity to psychologically get use to some internet domains to spur the discontinuation of attitude change and belief.

2.3 Internet celebrity and Para-social Relationships

It is believed that fame is a psychological concept which is tantamount to object relations theory (Sheldon and Elliot, 1998) and also diverse regarding its scope. Other studies have established how celebrities influence attitudes of the public, such as consumer behaviour (Tripp Jensen, and Carlson, 1994, Till and Shimp, 1998).

Para-social relationships are relationships created by an admirer of a celebrity which are always one-sided (Horton and Wohl, 1956), thus, it flows from the follower to the celebrity with the celebrity not aware of such relationships. These one-sided relationships are established as a result of the usage of the media often by interacting with the celebrity (Peres and Rubin, 1989).

The celebrity influence model which was put forward by Brown et al., (2003); Brown and de Matviuk, (2010) can be used to expound the available relationship between the influence of internet celebrities and purchase decision and materialism. The celebrity influence model basically relied on the following psychological orientations: identification and parasocial relationship. According to Horton and Wohl, (1956), Hartmann and Gold Hoorn, (2011), and Horton and Strauss, (1957), para-social relationship brings about intimate relationship which is perceived by an individual to have with media celebrities.

The celebrity influence model proposed that exposure to the media is the basis of establishing parasocial relationships. The chances of meeting celebrities in person by young people are very slim, so they often get to link up with the celebrities via the media and the internet is not an exception. It was suggested that in order to keep in touch with the celebrities, they follow them on their social media blogs to read their latest posts, look at their photos, and gossips about them (celebrities) and access other updates (Redmond and Holmes, 2007).

By virtue of the social relationship with the internet celebrities, followers of these celebrities view themselves as having some level of closeness with the celebrities (Brown et al., 2003; Brown and de Matviuk, 2010; Kosenko et al., 2016).

Other research findings prove that the relationships created between the celebrities and the followers due to the exposure and influence through social media are well established (Brown et al., 2003; Brown and de Matviuk, 2010; Kosenko et al., 2016). Nevertheless, Giles, (2002) maintains, that the followers' perception of having intimate relationships with social media celebrities is nothing but a mere illusion, since it is established and maintained only by the follower without the celebrities being aware of it. We there by formulated this hypothesis:

H1: Influence of internet celebrity leads to parasocial relationship with the celebrity.

2.4 Para-social Relationships and Identification

Numerous researchers have argued that the longer an individual uses or spends time on the internet, the less effective the individual's interpersonal relationship would be (Kraut et al., 1998 and Sanders et al., 2000). Scholars have posited that users of the internet attain social values with the help of online communities and they establish relationships with their peers as a result (Eastin and LaRose, 2005; Shaw and Gant, 2002; Xie, 2008).

Relationships with social media celebrities can make the follower develop some empathy towards the celebrities and therefore breeds the ground for celebrity identification (Wen, 2017; Chia and Poo, 2009; Fraser and Brown, 2002; Cheney, 1983). Further, celebrity identification makes the followers believe that they share something in common with the celebrity (Cohen, 2001). We therefore propose this hypothesis:

H2: Parasocial relationships with the Internet celebrity has a positive effect on identification with the celebrity.

2.5 Identification, Purchase Decision and Materialism

Consumers of the media react to members in the media in numerous ways, and identification happens to be one of those ways (Hoffner & Cantor, 1991). It is without doubt that, followers of the media personalities respond by either admiring or hating the media personalities, feeling attached to them (Newton & Buck, 1985; Newton, Buck & Woelfel, 1986), looking for things they have in common or differences between the personalities and themselves (Reeves & Miller, 1978), and also, yearn to be like the media personalities (Hoffner, 1996).

Numerous scholars have researched around the area of the impact of celebrity endorsers on consumers' behaviour and such research dwelled on attractiveness or credibility as a yardstick to measure how effective a message is (Kamins, Brand, Hoek & Moe, 1989). However, the theories of Bandura, Kelman and Burke postulated that identification is another factor playing a role in celebrity effects (Basil, 1996).

According to Burke (1950), identification has to do with the link between a character and audience member. This theory is from a drama point of view, but Kelman (1961) also propounded a theory of identification regarding opinion change. Kelman (1961) suggested that an individual's adoption of another person's behaviour or attitude is to satisfy his/her self-defining relationship with the other individual; this then leads to identifying him/herself with the person. On the other hand, Bandura's (1977) social cognitive theory regarding celebrity identification, pointed out that this could bring about behavioural adaptation. In a nutshell, this theory has to do with the suggestion that an individual's behaviour is mediated as a result of identifying with a celebrity model.

Audience most often than not get carried away by the characters portrayed in movies, and television programs and therefore, tend to identify themselves with the characters, and this is no different from internet celebrities. Basil (1996) established that, audience who identify with celebrities who promote health messages heighten the adoption of the messages. More so, a study was carried out about ethnography audience and it was established that, TV audience often emphasise on their feelings and reactions to characters, which includes the proclamation of their strong identification with characters (Liebes & Katz, 1990). It is crucial to note that, audience who identify with celebrities in the media get the chance to experience social reality from different views and it also goes a long way in shaping the development of self-identity and social attitudes (Erikson, 1968). Findings by scholars, suggests, that children who communicate most often with friends tend to be materialistic (Moschis and Churchil 1978; Churchil and Moschis 1979) and are easily opened to being influenced (Achenreiner, 1979). So since the followers of the celebrities see them as their peers as a result of para-social relationships created, this then leads to identification with the celebrity. We therefore formulated this hypothesis:

H3: Identification with the internet celebrity as a result of parasocial relationships has a positive effect on purchase decision and materialism.

3. Methodology

This part of the research entails the discussion of techniques for data collection and methods for sampling. The section again describes the techniques for data analysis and constructs measurement.

3.1 The design of questionnaire and appraisal of scale

A structured questionnaire comprising of 24 items was designed to measure identification, para-social relationships and to evaluate influence of internet celebrities on teenage and adolescent women attitude towards purchase decision and materialism. The questionnaire had four parts and comprise of demography of the respondents,

regarding their ages and sexual orientations. The second part of the questionnaire had to do with identification with the internet celebrity. While the third part contain questions about parasocial relationships with the celebrity. Some of the items used to measure identification and para-social relationships were adapted from Celebrity-Persona Identification Scale (Bocarnea and Brown, 2007) and (CPPI), Celebrity-Persona Parasocial Interaction Scale (Bocarnea and Brown, 2007) respectively with some changes made to them. Fourth part of the questionnaire also dealt with the respondents purchase decision and materialism. 5 point Likert scale was used and answers ranging from 1=strongly disagree to 5= strongly agree.

3.2 Sampling procedures

The sample was made up of female students from three universities from Dalian in Liaoning province of China. What informed our decision for sampling female students from universities was as a result of the belief that they identify themselves with celebrities, like to imitate celebrities which then make them to be materialistic (Chan et al., 2008). Demographically, the respondents fell under different types of demographic dispensations, such as age and sexual orientation. We sampled 550 students through simple random sampling. We used paper and pencil survey to identify potential respondents. Though it has its own disadvantages such as cost, interviewers bias and longer period of collection of data (Aaker et al., 2000), we employed this method because it paves the way to clarify some of the questions to the respondents, allows for speed, sample control, anonymity, and quality control (Kassim and Abdullah, 2010). In the end, 413 useable questionnaires were obtained in the course of a month and four days within the month of June and July 2018, representing 75% of the sampled population. The respondents were between the ages of 18 years to 29 years.

3.3 Data analysis

Structural equation modeling (SEM) technique was employed supported by SmartPls 3 (Wende & Becker, 2015). This study mirrored the two step approach propounded by Anderson and Gerbing, (1998). To establish the construct validity of the model, we carried out a confirmatory factor analysis (CFA). The structural model was examined to test the hypotheses and to test how fit the model is.

4. Analysis and results

This section of the study has to do with descriptive analysis of data. More so, it encompasses results' interpretation and findings.

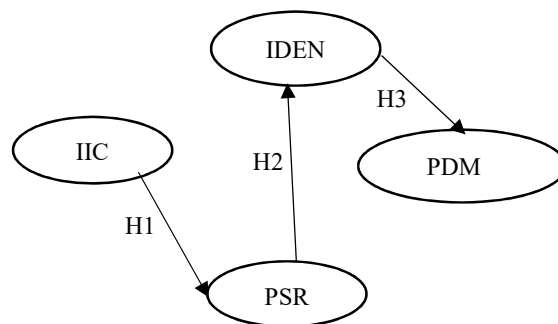


Figure 1.

Proposed conceptual model

Table I. Measurement of constructs

| Constructs | Items | Cronbach α |
|---------------------------|---|-------------------|
| Influence of internet | | 0.746 |
| Celebrities | (IIC1) Influence of internet celebrities lead to para-social relationships with the celebrities (IIC2) Exposure to your internet celebrity idol will predict your parasocial relationships with her (IIC3) I understand the emotions the celebrity experience (IIC4) Exposure to your internet celebrity idol through para-social relationships will predict identification with her | |
| Para-social Relationships | (PSR1) The para-social relationships you have with your celebrity idol on the internet leads to identification with her (PSR2) Parasocial relationships with your celebrity idol on the Internet makes you aspire to look like her (PSR3) Parasocial relationships with your celebrity idol on the Internet makes you aspire to think like her (PSR4) Parasocial relationships with your celebrity idol on the Internet makes you aspire to behave like her | 0.723 |
| Identification | (ID1) Your heavy dependence on the internet makes you have some feelings for your internet celebrity idol (ID2) Your heavy dependence on the internet makes you feel related to her (ID3) Your heavy dependence on the internet makes you see her as a personal role model (ID4) Identification with your internet celebrity increase when your para-social relationship with her develops (ID5) Identification with your internet celebrity idol will make you imitate her (ID6) Identification with your internet celebrity idol will make you | 0.778 |

| | | |
|--------------|--|-------|
| | adopt her values, beliefs and behaviours | |
| Purchase | (PDM1) I will purchase a product endorsed by my internet celebrity idol | 0.737 |
| Decision and | (PDM2) I approve of persons being influenced by their celebrity idols to | |
| Materialism | to make a purchase of products being used by their celebrity idols | |
| | (PDM3) I believe in the quality of products my internet celebrity idol endorses | |
| | (PDM4) Identification with your internet celebrity idol has a positive relationship with purchase decision and materialism | |
| | (PDM5) Interacting with internet celebrities has a positive effect on purchase decision and materialism | |
| | (ID6) If I become materialistic as a result of the influence by my celebrity idol, I would be embarrassed to tell people other than family and close friends | |

4.1 Demographic Characteristics of respondents and controlled variables

Table II portrays the respondents' characteristics and controlled variables. Age and sexual orientation of the respondents are the highest points. The respondents' age ranged from 18 to 29. Majority of respondents were between 18 to 20 years old, representing (45.0 percent), whereas the lowest were between 24 to 26 years old, representing (12.8 percent). With regard to sexual orientations, 85.7 percent of the respondents were heterosexuals, whereas 3.9 percent were homosexuals (Lesbians). When asked about the celebrity they identified with the most on the internet, majority of the respondents chose Papi Tyan (41.9 percent), whereas the lowest was Guo Meimei with 6.3 percent. With hours spent on social media in a day, majority of the respondents claimed they spent between 1 to 2 hours in a day (43.1 percent), whereas the respondents with the lowest percentage of 14.0 spent between 7 to 8 hours a day surfing the internet.

Table 2

| Demographic characteristics | Frequency | % | Cumulative (%) |
|-----------------------------|-----------|------|----------------|
| <i>Age</i> | | | |
| 18-20 years | 186 | 45 | 45 |
| 21-23 years | 112 | 27.1 | 72.2 |
| 24-26 years | 53 | 12.8 | 85 |
| 27-29 years | 62 | 15.0 | 100 |
| <i>Sexual Orientation</i> | | | |
| Bisexual | 43 | 10.4 | 10.4 |
| Homosexual | 16 | 3.9 | 14.3 |
| Heterosexual | 354 | 85.7 | 100 |
| <i>Beautiful Celebrity</i> | | | |
| Naicha Meimei | 158 | 38.3 | 38.3 |

| | | | |
|-------------|-----|------|------|
| Papi Tyan | 133 | 32.2 | 70.5 |
| Zhang Dayie | 87 | 21.1 | 91.5 |
| Gao Meimei | 35 | 8.5 | 100 |

Identified Celebrity

| | | | |
|---------------|-----|------|------|
| Papi Tyan | 173 | 41.9 | 41.9 |
| Naicha Meimei | 124 | 30 | 70 |
| Zhang Dayie | 88 | 21.3 | 21.8 |
| Gao Meimei | 26 | 6.3 | 100 |

Hours spent on the internet

| | | | |
|-----------|-----|------|------|
| 1-2 hours | 178 | 43.1 | 43.1 |
| 3-4 hours | 112 | 27.1 | 70.2 |
| 5-6 hours | 65 | 15.7 | 86.0 |
| 7-8 hours | 58 | 14 | 100 |

Note: N = 413

4.2 The Results of Measurement Model

To establish the goodness of fit of the measurement model, the unidimensionality technique was employed, reliability of the items, content validity, convergent validity and discriminant validity were confirmed to have met the thresholds set for them.

4.2.1 Unidimensionality technique: According to Awang (2010), in order to achieve the unidimensionality, all the measuring items ought to have the acceptable factor loadings for the individual latent variables. To adhere to the unidimensionality technique postulated by Awang (2010), we deleted items whose factor loadings were below 0.60 until we arrived at the acceptable factor loadings for the many constructs.

4.2.2 Items reliability: Considering the confirmatory factor analysis (CFA) results of the study in Table III, the individual items loaded above the level posited by Chin et al (1997), which is 0.60. Moreover, the internal reliability results when using values of Cronbach α ranged from 0.723 to 0.778, exceeding the 0.70 threshold suggested by Nunnally and Bernstein (1994). Again, all the latent constructs values of the composite reliability ranged from 0.817 to 0.870 which were by far above the threshold level of 0.70 postulated by (Hair et al., 2010).

4.2.3 Content validity: Factor loadings are used to make sure that all the individual items created to help in the measurement of a construct are loaded very high and also have significant impact on the constructs whiles measuring them as suggested by (Chin, 1998 and Hair et al., 2010). Figure 2 depicts that all the individual items on the different constructs were significantly and highly loading on each construct which ultimately confirms the content validity of the measurement model.

4.2.4 Convergent validity: Taking the literature of Structural Equation Modelling (SEM) into consideration, convergent validity can be referred to as the level to which a set of indicators converges in measuring the concept which is being considered (Bagozzi and Yi, 1988; Hair et al., 2010). From the definition, we then used the Cronbach alpha's coefficient, items reliability, average variance extracted (AVE) and internal consistency to aid in confirming the convergent validity.

More so, the average variances extracted manifest the whole amount of the shared variance among the indicators, measuring a particular latent construct ranging from 0.527 to 0.691, overshadowing the acceptable level of 0.50 suggested by Bagozzi and Yi (1988) and Hair et al., (2010). All the latent constructs had composite reliability of at least 0.817 and lowest AVE of 0.527.

Table III CFA Results of Measures

| Constructs | Items | Internal reliability | Factor loading | Convergent validity | |
|------------------------------------|-------|----------------------|----------------|---|------------------|
| | | Cronbach α | | Composite reliability (CR) ^a | AVE ^b |
| Internet Celebrity | IIC1 | 0.746 | 0.854 | 0.853 | 0.660 |
| | IIC2 | | 0.832 | | |
| | IIC4 | | 0.748 | | |
| Parasocial Relationships | PSR1 | 0.723 | 0.767 | 0.817 | 0.527 |
| | PSR2 | | 0.756 | | |
| | PSR3 | | 0.677 | | |
| | PSR4 | | 0.701 | | |
| Identification | IDEN3 | 0.778 | 0.862 | 0.870 | 0.691 |
| | IDEN4 | | 0.878 | | |
| | IDEN5 | | 0.747 | | |
| Purchase Decision & materialism | PDM1 | 0.737 | 0.774 | 0.851 | 0.655 |
| | PDM4 | | 0.835 | | |
| | PDM5 | | 0.818 | | |

Note: ^aCR = $(\sum \text{factor loading})^2 / ((\sum \text{factor loading})^2 + \sum (\text{variance of error}))$; ^bAVE = $\sum (\text{factor loading})^2 / (\sum ((\text{factor loading})^2 + \sum (\text{variance of error})))$. It is very important to note that all the loadings are significant at 0.001 significant level.

4.2.5 (GoF)

The overall measure for model fit for PLS-SEM has its own flaws because it does not generate overall Goodness of Fit (GoF); however, to check the exploratory strength of the model, rule of R^2 can be used (Henseler et al., 2016). We therefore used the diagnostic tool suggested by Tenenhaus et al., (2005) as the Goodness of Fit (GoF) index to ascertain the model fit. We did this by computing the average mean value of the AVE values and the average R^2 values with this equation ($\text{GoF} = \sqrt{(\text{AVE} \times R^2)}$). There is no threshold values set by Tenenhaus et al., (2005) in their Goodness of Fit (GoF) index, but these thresholds were postulated by Wetzels et al., (2009) to ascertain the analysis of GoF; Small = 0.1, medium = 0.25 and large = 0.36. Having gotten 0.566 as our GoF index value we therefore conclude that the model has a good fit.

Table IV. Goodness of Fit (GoF)

| Constructs | AVE | R ² |
|-----------------------------------|-------|----------------|
| Internet Celebrity | 0.660 | |
| Para-social Relationships | 0.527 | 0.542 |
| Identification | 0.691 | 0.606 |
| Purchase decision and Materialism | 0.655 | 0.378 |
| Average scores | 0.633 | 0.508 |
| AVE × R ² | 0.321 | |
| GoF = $\sqrt{(AVE \times R^2)}$ | 0.566 | |

4.2.6 Discriminant validity: This refers to the extent at which a set of variables of a certain construct vary from other constructs in a model. According to Compeau et al., (1999), the variance shared among a set of items measuring a construct is higher compared to the variance shared with other constructs in a model. Again, according to the method postulated by Fornell and Larcker (1981), the discriminant validity can be established as a result of comparison between the square root of the average variance extracted (AVE) values and the correlations among the constructs.

In a nutshell, there are two criteria involved when evaluating the discriminant validity of a model. First, the square root of each latent variable must be higher than the correlation between that and the latent variables remaining (Chin, 1998), whereas the other way is the proposed latent variables which are to be measured must load highly against other latent variables (Chin et al., 2003). Table 4 depicts that the square roots of the AVE which are represented diagonally are higher than other values in their columns and rows. These results therefore affirm that the model's discriminant validity is enough and also confirm the adequacy of the reliability, convergent validity and discriminant validity of the measurement model.

Table 5. Discriminant validity and descriptive analysis

| Constructs | 1 | 2 | 3 | 4 | Min | Max | Mean | SD |
|------------|--------------|--------------|--------------|--------------|------|-------|--------|-------|
| 1. IDEN | 0.831 | | | | 3.00 | 15.00 | 10.289 | 2.468 |
| 2. ICC | 0.761 | 0.813 | | | 4.00 | 29.00 | 14.606 | 3,444 |
| 3. PDM | 0.615 | 0.690 | 0.809 | | 3.00 | 15.00 | 11.702 | 2.413 |
| 4. PSR | 0.779 | 0.736 | 0.555 | 0.726 | 4.00 | 20.00 | 12.676 | 3.074 |

Note: The bolded values on the diagonal represent the square root of the average variances extracted, whereas the other values in the rows and columns represent the correlations among the latent constructs.

IDEN: Identification; ICC: Influence of internet celebrity; PDM: Purchase decision and materialism; PSR: Para-social relationships.

4.3 Results of structural model

After the model's reliability and validity had been ascertained, we then used SEM to test the hypotheses by virtue of the fact that there is statistical efficiency from the technique. And also, as a result of its ability to evaluate the relationships meticulously, it has therefore presented a transition from exploratory to confirmatory analysis (Hair et al., 2006). In line with Cohen's (1988) postulations, standardized path coefficients with (β) with absolute values

of less than 0.10 may be regarded as “small” effect, values in the region of 0.30 may indicate “medium” effect, whereas coefficients with absolute value of 0.50 or more is regarded as “large” effect. The analyses results are discussed below.

4.3.1 Analyses results

After testing the hypotheses, we came up with the following results depicted in table V. From the table it can be deduced that internet celebrity has a strong relationship with para-social relationships. Therefore, the coefficient of influence of internet celebrity ($\beta=0.736$, $t\text{-value}=40.097$, $p<0.001$) is significant with para-social relationships. Hence H1 was accepted as suggested in the study. This therefore buttressed our hypothesis that influence of social media celebrity leads to para-social relationships with the celebrity.

Again, the para-social relationships established with the internet celebrity that leads to identification was statistically supported ($\beta=0.779$, $t\text{-value}=45.237$, $p < 0.001$). This therefore supported H2 as postulated in the study.

H3 also portrays another significant relationship between identification and purchase decision & materialism, ($\beta=0.615$, $t\text{-value} = 19.919$, $P < 0.001$). From this evidence, H3 was statistically supported, so we therefore accepted H3.

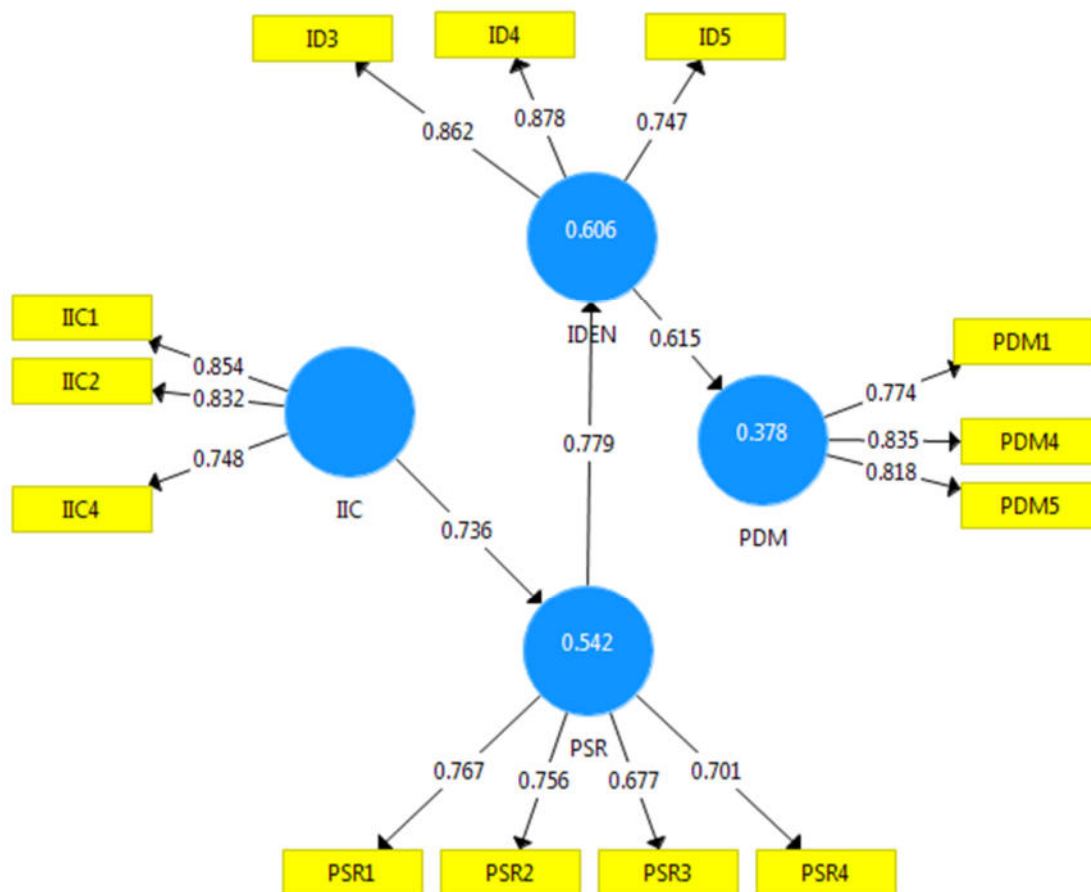


Figure2. Path analysis model

Table 6. Hypothesized direct effect

| Hypotheses | Hypothesized direct effect | β - value | t-value | p-value | Decision |
|------------|---|-----------------|---------|---------|-----------|
| H1 | Influence of internet celebrity leads to para-social relationships with the celebrity. | 0.736 | 40.097 | 0.000 | Accepted |
| H2 | Para-social relationships with the Internet celebrity has a positive effect on identification with the celebrity. | 0.779 | 45.237 | 0.000 | Supported |
| H3 | Identification with the internet celebrity as a result of para-social relationships has a positive effect on purchase decision and materialism. | 0.615 | 19.919 | 0.000 | Accepted |

Note *** $p < .001$, ** $p < .01$, * $p < .05$

5. Limitations

Care ought to be taken not to generalise these findings since it is only related to female teenagers and adolescents in China and for that matter the respondents were students in three universities in Dalian, Liaoning Province. Moreover, another limitation has to do with the fact that though the items reliability, convergent validity, content validity, Cronbach alpha and discriminant validity were all satisfactory, however, the SRMR and NFI were not when we checked for the model fit. So we used the Goodness of Fit (GoF) index propounded by Tenenhaus et al., (2005) to ascertain the model fit.

6. Discussion and managerial implications

6.1 Discussion

The highlight of the study is the mediating roles para-social relationships and identification play between internet celebrities and purchase decision and the materialistic behaviours of their followers.

The study found that internet celebrities have an influence on the purchase decision and materialism of teenage and adolescent females through para-social relationships and identification. Internet celebrities have a significant direct impact on para-social relationships with the followers. This buttresses the findings of previous studies on celebrity influence and para-social relationships (See for e.g. Horton and Wohl, 1956; Horton and Strauss, 1957; Gold and Hoorn, 2011). Moreover, the study found that para-social relationships with the internet celebrity idol leads to identification with the celebrity. This is also in line with the findings of previous studies (See Cohen, 2001; Fraser and Brown, 2002; Chia and Poo, 2009). Furthermore, it was found that there is a significant relationship between identification with the celebrity and purchase decision and materialism. This is because, teenage and adolescent females relate and see themselves as having similar characteristics as their idolised celebrities. They then tend to imitate whatever the celebrities do since they see them as their peers (see Moschis and Churchil 1978; Churchil and Moschis 1979; Achenreiner, 1979; Basil 1996)

6.2 Managerial Implications

The importance of our findings pave the way for marketing managers, NGO's and Governments. For instance, as a result of the influence of the internet celebrities on purchase decision and materialism, marketing managers ought to take advantage to use them in their commercials in a bid to promote their products and services to the target audience.

Again, because of the identification the followers have with the internet celebrities, marketers and firms who are into female items should use the internet celebrities to endorse their products and services online instead of using the well-established traditional celebrities such as actresses and sports women who will demand huge sum of money to endorse a product or service.

Moreover, firms must take advantage of the power of social media to channel their commercials there since it is the cheapest compared to television and magazine. They can also embark on ambush marketing by providing the internet celebrities with some of their products to use and share a video of themselves using the products on their blogs or pages.

More so, since the followers of the internet celebrities see themselves as having a relationship with the celebrities as a result of the para-social relationships they established, NGO's and governments ought to tap into this one sided relationship by using the internet celebrities to reach out to the youth in order to sensitise them about issues regarding prostitution, cyber bullying, cyber scamming, depression, exposure to pornographic sites, drug and alcohol abuse among other factors affecting the youth.

7. Conclusions and direction for future research

The main contribution to this research is mediating roles para-social relationships and celebrity identification play in investigating the relationship between internet celebrities' influence on purchase decision and materialism as against previous studies that look at the relationship between para-social relationships and identification of the traditional celebrities.

We address this gap in the model and suggested that internet celebrities ought to influence purchase decision and materialism via para-social relationships and identification. Taking the objective of the study into consideration, influence of internet celebrities has a significant relationship with purchase decision and materialism through the mediating roles of para-social relationships and identification. This then suggests that marketers and governments alike should tap into this opportunity to use the internet celebrities as third parties to send across messages to their target audience via social media. Again, the findings of this study contribute to the literature of para-social relationships and identification and show how they influence purchase decision and materialism.

Future research should focus on investigating males by comparing them with the females to know which gender is greatly influenced by the internet celebrities. Moreover, the current model can be enhanced by adding social media platform as a moderator between internet celebrities and para-social relationships.

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