# A STRUCTURAL MODELING APPROACH TO COMPREHEND PURCHASE INTENTION INFLUENCED BY SOCIAL MEDIA : THE MEDIATING ROLE OF CONSUMER ATTITUDE AND THE MODERATING ROLE OF MARKET MAVENS

BY

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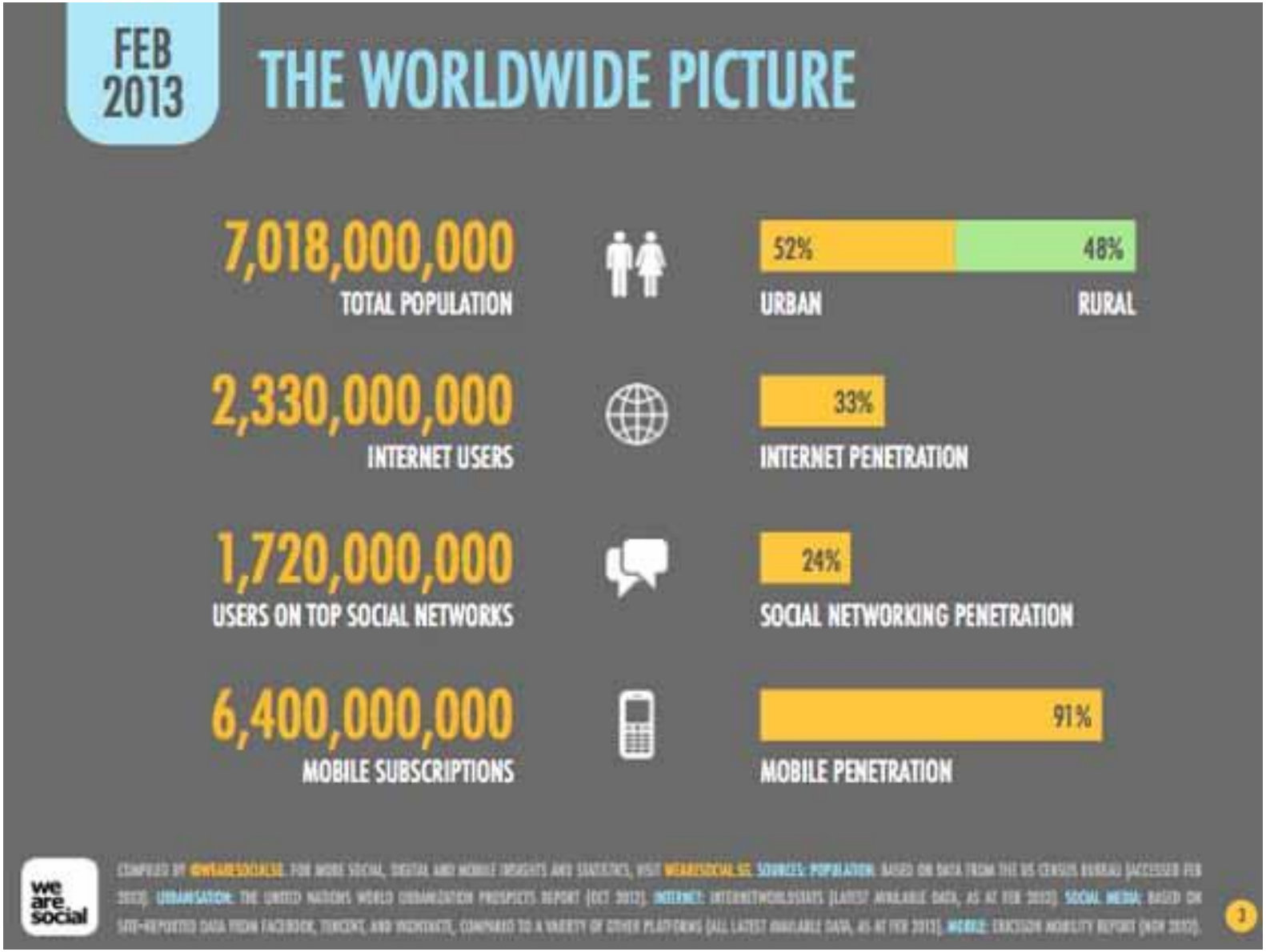



Source: http://wallblog.co.uk/2013/02/07/a-global-picture-social-media-across-the-world/

# PURPOSE OF RESEARCH

**To lay the groundwork for understanding the factors that leads to consumers' intention to follow brands in social media and how that influences their intention to purchase.**

# PREMISE 1

**Usage of Social Networking Sites depends on users' "confidence in their ability to successfully understand, navigate, and evaluate content online' (Daugherty & Eastin, 2005, p. 71)**

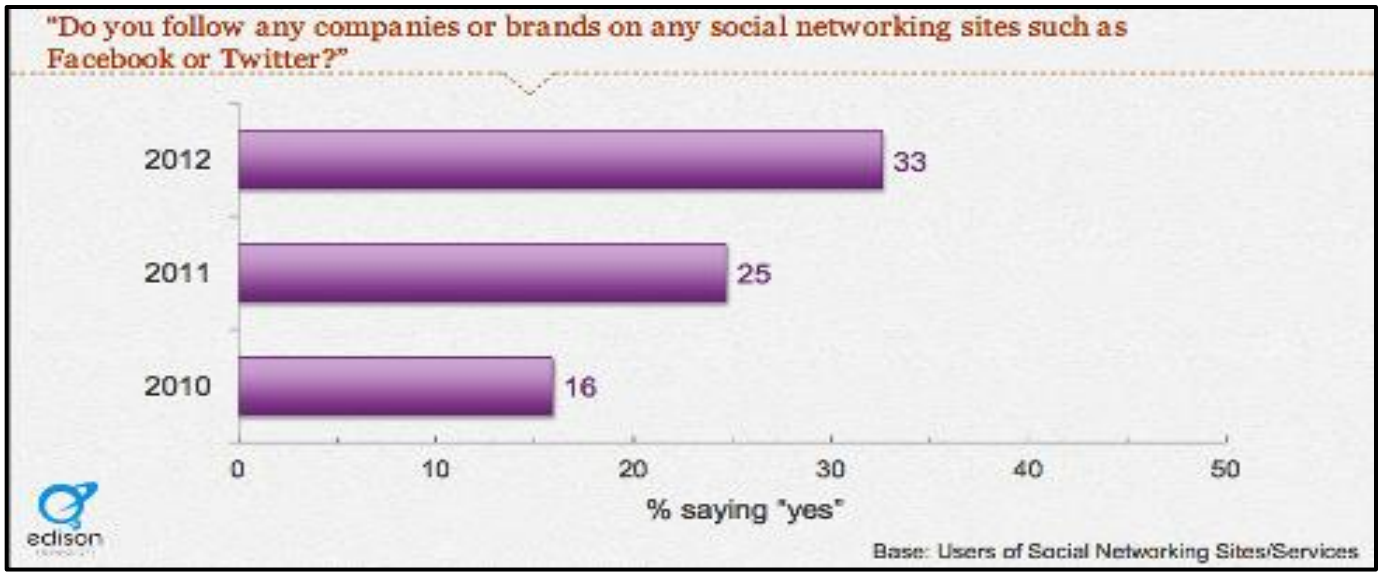
Daugherty, T. and M. Eastin (2005), "e-CRM: Understanding Internet Confidence and Implications for Customer Relationship Management," in *Advances in Electronic Marketing*, Irvine Clark III and Theresa Flaherty, eds. Harrisonburg, VA: James Madison University, Idea Group Publishing, Inc., 67-82.

# PREMISE 1 (CONTINUED)

**Social media users are more interested in brands than ever before.**

**In fact, brand-following behavior on social media sites increased by a respectable 17% in the last two years, and by 8% from 2011 to 2012.**

**It's likely that this trend will continue on the same upward path.**




Source: http://www.socialmediaexaminer.com/9-consumer-social-media-trends-that-could-impact-marketers/

# HYPOTHESIS 1

**H1: Perceived self-efficacy of the social media positively impact intention to follow brands in social media.**

# PREMISE 2

**The relationship between attitude towards the system (goods or service) and the intention to use is essential for behavioral models. In addition, several researchers have analyzed and proved this relationship in various contexts, mainly, in the virtual community (Royo and Casamassima, 2011).**

**Attitude towards virtual social network affects directly and positively the intention to use the virtual social networks (Hernández and Küster, 2012).**

Hernández, A. and I. Küster (2012) Brand impact on purchase intention. An approach in social networks channel, Economics and Business Letters, 1(2), 1-9.
Royo-Vela, M. and Casamassima, P. (2011) The influence of belonging to virtual brand communities on consumers' affective commitment, satisfaction and word-of mouth advertising: The ZARA case, Online Information Review, 35(4), 517-542.

# HYPOTHESIS 2

**H2: Attitude towards social media positively impacts intention to follow brands in social media.**

# PREMISE 3

**Internet users who have high levels of online usage knowledge have been shown to be more involved in using this medium and to demonstrate a positive attitude toward the electronic medium, even when they first started using the internet (Johnson and Kaye, 2003).**

**As Internet self-efficacy (i.e., beliefs) increases, the attitudes toward the object of those beliefs also should increase (Ajzen and Sexton 1999), which suggests that persons with higher levels of Internet self-efficacy should have more favorable attitudes toward Social Networking Sites.**

Ajzen, I. and J. Sexton (1999), "Depth of Processing, Belief Congruence, and Attitude-Behavior Correspondence," in *Dual-Process Theories in Social Psychology*, S. Chaiken and Y. Trope, eds. New York: The Guilford Press, 117-138.

Johnson, T.J. and Kaye, B.K. (2003), “A boom or bust for democracy? How the internet influences political attitudes and behaviors”, Harvard International Journal of Press/ Policies, Vol. 8, pp. 9-34.

# PREMISE 3 (CONTINUED)

**If attitude mediates the relationship of Internet self-efficacy with active participation in social networking sites, it requires that the mediator (attitude) positively affect the dependent variable (participation) when regressed in conjunction with the independent variable (Internet self-efficacy) (Gangadharbatla, 2008).**

Gangadharbatla, H. (2008). *Facebook* Me: Collective Self-Esteem, Need to Belong,and Internet Self-Efficacy as Predictors of the iGeneration's Attitudes toward Social Networking Sites. *Journal of Interactive Advertising, Vol 8 No 2 (Spring 2008), pp. 5-15.*

# HYPOTHESIS 3

**H3: The impact of perceived self-efficacy of the social media on intention to follow brands in social media is partially mediated by attitude towards social media.**

# PREMISE 4

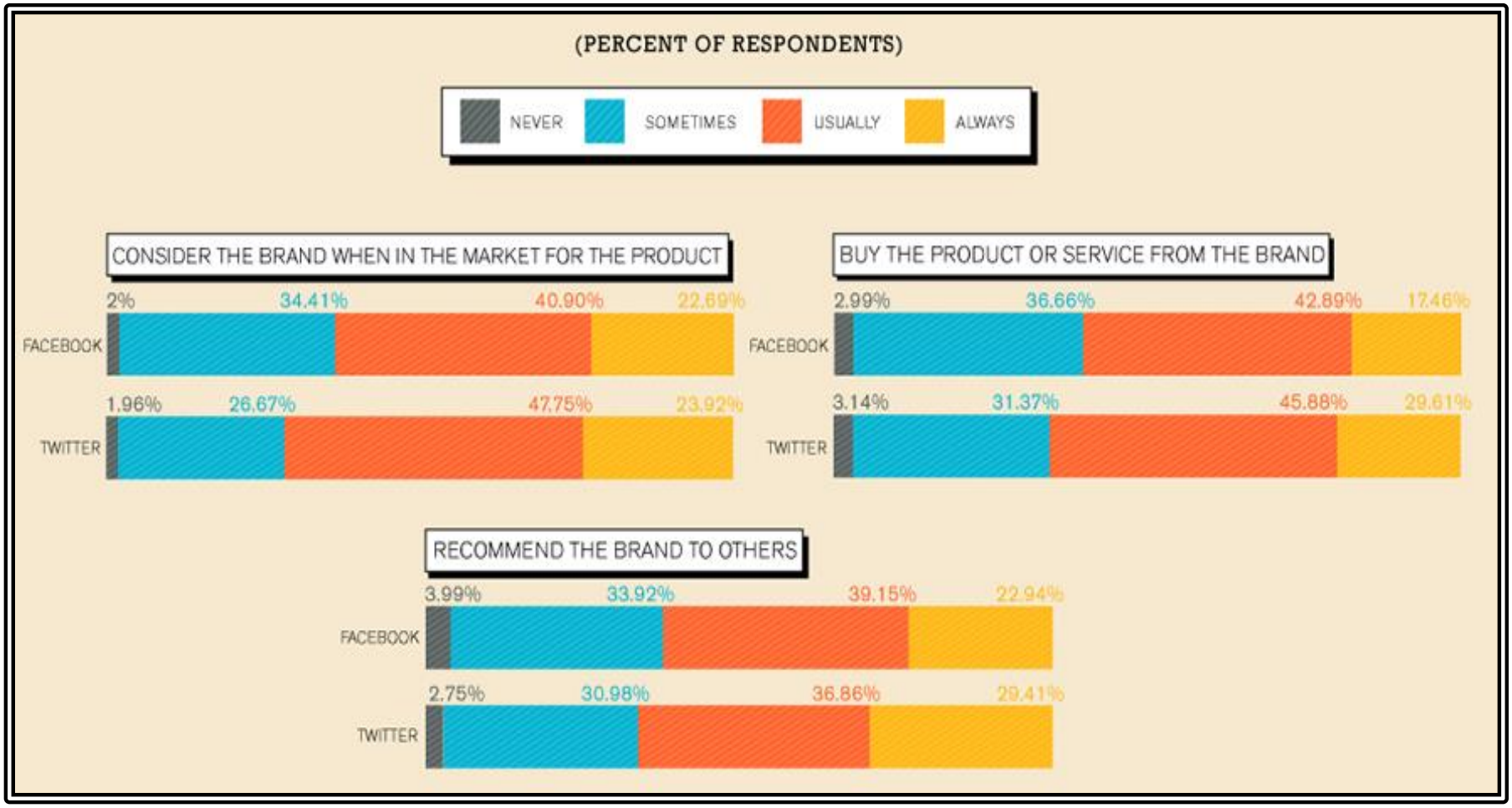
**Research could also explore whether there is a relation between the blogger's attitude and bloggers who consider themselves to be a market maven who use computer mediated communication (e.g. blog site) to directly communicate with parties to share their views on product, brand, and consumption experiences (Thakur, Summey & John, 2013).**

Ramendra Thakur, John H. Summey, Joby John, (2013),"A perceptual approach to understanding user-generated media behavior", Journal of Consumer Marketing, Vol. 30 Iss: 1 pp. 4 - 16

# HYPOTHESIS 4

**H4: Market mavenism moderates the effect of attitude towards social media on intention to follow brands in social media such that effects of attitude will be stronger at higher levels of market mavenism.**

# PREMISE 5




http://blog.getsatisfaction.com/2011/06/29/what-makes-people-follow brands/?view=socialstudies

# PREMISE 5 (CONTINUED)

1. 78% of respondents said that companies' social media posts impact their purchases (Forbes)
2. Consumers are 71% more likely to make a purchase based on social media referrals (Hubspot)
3. 38,000,000 13 to 80 year olds in the U.S. said their purchasing decisions were influenced by social media(Knowledge Networks)
4. 74% of consumers rely on social networks to guide purchase decisions (SproutSocial)

# HYPOTHESIS 5

**H5: The intention to follow brands in social media positively impacts the intention to purchase influenced by social media.**

# HYPOTHESES

**H1: Perceived self-efficacy of the social media positively impact intention to follow brands in social media.**

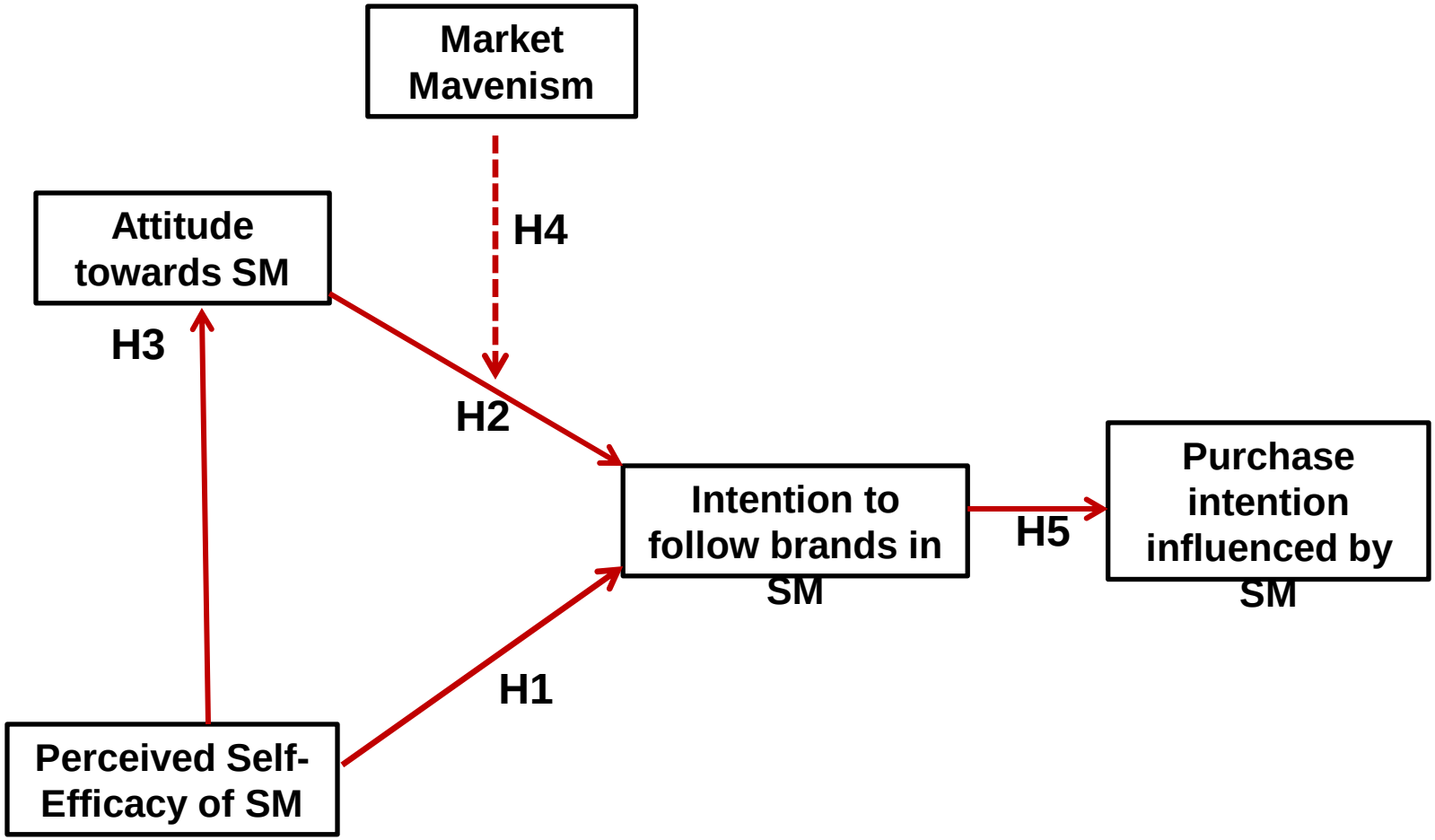
**H2: Attitude towards social media positively impacts intention to follow brands in social media.**

**H3: The impact of perceived self-efficacy of the social media on intention to follow brands in social media is partially mediated by attitude towards social media.**

**H4: Market mavenism moderates the effect of attitude towards social media on intention to follow brands in social media such that effects of attitude will be stronger at higher levels of market mavenism.**

**H5: The intention to follow brands in social media positively impacts the purchase intention influenced by social media.**

# CONCEPTUAL FRAMEWORK



# PHILOSOPHICAL FOUNDATION

- **Positivist epistemological belief.**
- **Empirical testability of theories.**
- **Premised on existence of a priori relationships among phenomena that can be identified and tested using hypothetic-deductive logic and analysis.**

# PERCEIVED SELF-EFFICACY OF SOCIAL MEDIA

**Definition: Self-efficacy refers to the belief "in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura 1997, p. 3). In the present research, it refers to an individual's perception of ones ability to use the social media and their ability to apply those social networking skills to broader tasks.**

**No. of Items to measure: 4 (Eastin and LaRose, 2000)**

i. **I know how to find a topic of interest to me in social media.**

ii. **I know how to enter my own comments on a social media site.**

iii. **Among my circle of friend, I'm one of the "expert" in using this technology.**

iv. **I know pretty much everything there is to know about social media.**

**Each item was measured by a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7).**

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York: Freeman.
Eastin, Matthew S. and R.L. LaRose (2000), "Internet Self-Efficacy and the Psychology of the Digital Divide," *Journal of Computer-Mediated Communication* 6, available at http://www.ascusc.org/jcmc/vol6/

# ATTITUDE TOWARDS SOCIAL MEDIA

**Definition: Individual's positive predisposition to social media sites.**

**No. of Items to measure: 7 (Thankur, Summey and John, 2013)**

i. **Social media are a useful resource for me.**

ii. **I have a favorable attitude toward social media.**

iii. **Interacting through social media is a positive activity.**

iv. **Interacting through social media is a desirable activity.**

v. **Interacting through social media is an attractive activity.**

vi. **Interacting through social media is an appealing activity.**

vii. **Social media is fun for me.**

**Each item was measured by a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7).**

Ramendra Thakur, John H. Summey, Joby John, (2013),"A perceptual approach to understanding user-generated media behavior", Journal of Consumer Marketing, Vol. 30 Iss: 1 pp. 4 - 16

# MARKET MAVENISM

**Definition: Market mavens are "individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to requests from consumers for market information" and they may be anticipating that such knowledge will serve to facilitate social exchanges and conversations (Feick and Price, 1987, p. 85).**

**No. of Items to measure: 6 (Ailawadi et al., 2001; Feick and Price, 1987)**

i. **I like helping people by providing them with useful information about the products.**

ii. **People ask me for information about places to shop.**

iii. **I am a good source of information on new products.**

iv. **I like to introduce new brands and products to my friend.**

v. **If someone is searching for a place to shop; I am viewed as a reliable source.**

vi. **Friends think of me as a reliable source about products I have come in contact with.**

**Each item was measured by a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7).**

Ailawadi, K.L., Nielson, S.C. and Gedenk, K. (2001), "Pursuing the value-conscious consumer: store brands versus national brand promotions", Journal of Marketing, Vol. 65, January, pp. 71-89.
Feick, Lawrence and Linda Price (1987), "The Market Maven: A Diffuser of Marketplace Information," Journal of Marketing, 51 (January), 83-87.

# INTENTION TO FOLLOW BRANDS IN SOCIAL MEDIA

**Definition: Individual's Intention to follow brands in Social Media**

**No. of Items to measure: 3 (Annie Jin, 2012)**

i. **I am interested in utilizing social media to follow-up on brands' online updates**

ii. **I am interested in utilizing social media to browse brands I like**

iii. **I am interested in utilizing social media to refer to consumer reviews**

**Each item was measured by a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7).**

Seung-A Annie Jin, (2012),"The potential of social media for luxury brand management", Marketing Intelligence & Planning, Vol. 30 Iss: 7 pp. 687 - 699

# PURCHASE INTENTION INFLUENCED BY SM

**Definition: Individual's Purchase Intention influenced by Social Media**

**No. of Items to measure: 3 (Annie Jin, 2012)**

i. **I visit the brand's social media page before making a purchase.**

ii. **I intend to use social media to seek comments and advice from other experts before making a purchase.**

iii. **I give value to the opinion of others provided in social media and purchase accordingly.**

**Each item was measured by a seven-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (7).**

Seung-A Annie Jin, (2012),"The potential of social media for luxury brand management", Marketing Intelligence & Planning, Vol. 30 Iss: 7 pp. 687 - 699

# SAMPLING AND STATISTICAL DESIGN

- **Out of 300 questionnaires sent, a total of 196 completed questionnaires were returned for a response rate of 65 percent.**
- **Partial least squares (Smart PLS version 2.00), a component-based path modeling technique (Chin, 1998), was used to test the hypotheses.**

Chin, W. (1998), “The partial least squares for structural equation modeling”, in Marcoulides, G. (Ed.), Modern Methods for Business Research, Lawrence Erlbaum Associates, Mahwah, NJ, pp. 295-336.

# WHY PLS?

**PLS was considered to be an appropriate methodology relative to covariance based SEM approaches for a number of reasons:**

i. **Based on the formulation of the hypotheses, the objective of this study is to further develop theory in social media marketing. PLS is particularly applicable in research areas where theory is not as well developed as that demanded by co-variance SEM such as LISREL and AMOS (Fornell and Bookstein, 1982).**

ii. **PLS is particularly well-suited to operationalizing behavioral intentions models in an applied setting (Johnson and Gustafsson, 2000).**

iii. **Small sample size (Chin, 1999).**

iv. **Multivariate normality could not be achieved. The data were not normally distributed with a significant number of items showing skewness > ± 1.0; and Kurtosis > ± 2.0.**

v. **Constructs with few items (Hair et al., 2011).**

Chin, W. W., and Newsted, P. R. (1999). Structural Equation Modeling analysis with Small Samples Using Partial Least Squares. In Rick Hoyle (Ed.), Statistical Strategies for Small Sample Research, Sage Publications.
Fornell, C. and Bookstein, F.L. (1982), “Two structural equation models: LISREL and PLS applied to consumer exit-voice theory”, Journal of Marketing Research, Vol. 19
No. 4, pp. 440-52.
Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011), “PLS-SEM: indeed a silver bullet”, Journal of Marketing Theory and Practice, Vol. 19 No. 2, pp. 139-51.
Johnson, M. and Gustafsson, A. (2000), Improving Customer Satisfaction, Loyalty and Profit: An Integrated Measurement and Management System, Jossey-Bass, San Francisco, CA.

| Construct name and items | Loading | t-value | Internal consistency | Average variance extracted (AVE) |
|---|---|---|---|---|
| **Perceived Self-Efficacy of Social Media** | | | 0.95 | 0.94 |
| Find a topic of interest | 0.95 | 62.06 | | |
| Enter comments | 0.95 | 56.32 | | |
| Perceived expertise | 0.94 | 46.2 | | |
| Perceived Knowledge | 0.83 | 52.02 | | |
| **Attitude towards Social Media** | | | 0.92 | 0.89 |
| Useful resource | 0.78 | 31.8 | | |
| Favorable attitude | 0.76 | 35.4 | | |
| Positive activity | 0.82 | 46.5 | | |
| Desirable activity | 0.72 | 45.3 | | |
| Attractive activity | 0.71 | 56.8 | | |
| Appealing activity | 0.92 | 39.7 | | |
| Fun | 0.85 | 51.8 | | |
| **Market mavenism** | | | 0.85 | 0.75 |
| Provide information | 0.84 | 28.3 | | |
| People ask information | 0.77 | 32.6 | | |
| Good source of information | 0.80 | 35.7 | | |
| Introduce new brands | 0.75 | 23.2 | | |
| Reliable source | 0.8 | 21.5 | | |
| **Intention to follow brands in Social Media** | | | 0.82 | 0.84 |
| Brand’s online updates | 0.74 | 84.5 | | |
| Browse brands | 0.72 | 73.2 | | |
| Refer consumer reviews | 0.81 | 68.2 | | |
| **Purchase Intention Influenced by SM** | | | 0.83 | 0.91 |
| Visit the brand’s social media page | 0.68 | 84.1 | | |
| Seek comments and advice | 0.72 | 82.2 | | |
| Give value to the opinion of others | 0.82 | 78.2 | | |

# MEASUREMENT MODEL ANALYSIS

**All item loadings are above 0.70 with statistical significance except the first indicator of fifth construct.**

**Convergent validity is demonstrated when items load highly (loading > 0.50) on their associated factors.**

**The AVE of all constructs ranged from 0.75 to 0.94, exceeding the threshold of 0.5.**

**The Internal Consistency of each construct ranged from 0.82 to 0.95, exceeding the threshold of 0.7 which confirms the reliability.**

**Thus the statistical results confirm that the constructs adopted in this study had acceptable convergent validity and reliability, and the indicators are applicable to present research.**

# DESCRIPTIVE STATISTICS AND CORRELATIONS

| | Mean | SD | AVE | Perceived Self-Efficacy of SM | Attitude towards SM | Market Mavenim | Intention to follow brands in SM | Intention to purchase influenced by SM |
|---|---|---|---|---|---|---|---|---|
| **Perceived Self-Efficacy of SM** | **4.68** | **1.43** | **0.94** | ***0.96*** | | | | |
| **Attitude towards SM** | **4.28** | **1.13** | **0.89** | **0.53*** | ***0.94*** | | | |
| **Market Mavenism** | **4.26** | **1.44** | **0.75** | **0.54*** | **0.62*** | ***0.87*** | | |
| **Intention to follow brands in SM** | **5.07** | **1.36** | **0.84** | **0.48*** | **0.61*** | **0.56*** | ***0.91*** | |
| **Intention to purchase influenced by SM** | **4.87** | **1.58** | **0.91** | **0.63*** | **0.52*** | **0.59*** | **0.63*** | ***0.95*** |

The italic entries on the diagonal are the square root of AVE. The other values display shared variance (i.e., r2) between two factors (Fornell and Larcker, 1981). All correlations are significant at *p<0.01

Fornell, C. and Larcker, D.F. (1981), “Evaluating structural models with unobserved variables and measurement error”, Journal of Marketing Research, Vol. 18 No. 1, pp. 35-90.

# DISCRIMINANT VALIDITY

**The correlation matrix in the previous table shows that all bivariate correlations, ranged from 0.48 to 0.63 (at $p<0.01$), are < 0.8 (eliminating the possibility of a multicollinearity problem) and less than the square root of AVE (in the diagonal of the correlation matrix) of each corresponding construct.**

**Discriminant validity, the degree to which the measures of two constructs are empirical distinct, can be verified with no particularly high bivariate correlation (> 0.8) and with the square root of AVE being greater than the correlations of the constructs (Hair et al., 2011).**

**Thus our results indicate an acceptable level of discriminant validity.**

Hair, J.F., Ringle, C.M. and Sarstedt, M. (2011), "PLS-SEM: indeed a silver bullet", Journal of Marketing Theory and Practice, Vol. 19 No. 2, pp. 139-51.

# TABLE III: TESTS OF THE RESEARCH MODEL AND HYPOTHESES

| | Hypothesized relationships | Standardized coefficient | t-value | Test Result |
|---|---|---|---|---|
| H1 | Perceived Self-Efficacy of SM → Intention to follow brands in SM | .25 | 6.42 | Supported |
| H2 | Attitude towards SM → Intention to follow brands in SM | .46 | 11.8 | Supported |
| H3 | Perceived Self-Efficacy of SM → Attitude towards SM → Intention to follow brands in SM | | | Supported |
| | Perceived Knowledge of SM → Attitude towards SM | .61 | 19.39 | |
| | Perceived Self-Efficacy of SM → Intention to follow brands in SM | .25 | 6.42 | |
| | Attitude towards SM → Intention to follow brands in SM | .18 | 2.95 | |
| H4 | Attitude towards SM * Market Mavenism → Intention to follow brands in SM | .48 | 10.16 | Supported |
| H5 | Intention to follow brands in SM → Intention to purchase influenced by SM | .68 | 32.57 | Supported |

# TEST OF HYPOTHESIS 1 & 2

**As can be seen in Table III, self-efficacy of social media and attitude towards social media depict a significant positive relationship with intention to follow brands in social media.**

**The path coefficients suggest a stronger influence of attitude towards social media on intention to follow brands (β = 0.46, *t* = 11.8) relative to self-efficacy of social media (β = 0.25, *t* = 6.42).**

**Thus H1 and H2 are supported.**

Chin,W.W. and Newsted, P.R. (1999), "Structural equation modeling analysis with small samples using partial least squares", in Hoyle, R.H. (Ed.), Statistical Strategies for Small Sample Research, Sage Publications, Thousand Oaks, CA, pp. 307-41.

# TEST OF H3: THE MEDIATION OF ATTITUDE

**In demonstrating the suitability of PLS for testing mediation effects, the guidelines of Mathieu and Taylor (2006) and Baron and Kenny (1986) were followed.**

**The standardized beta of the direct path between self-efficacy of SM and intention to follow brands in SM is 0.42 and 0.25 after introducing attitude as a mediator. This represents 40.47 per cent of the direct effect.**

**The Sobel test (Shrout and Bolger, 2002) shows the mediation effect (> 1.96) to be significant ($p < 0.05$) suggesting that self-efficacy of SM has a direct effect on intention to follow brands as well as a partial effect through attitude towards SM.**

**H3 is thus supported.**


Baron, R.M. and Kenny, D. (1986), "The moderator mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations", Journal of Personality and Social Psychology, Vol. 51 No. 6, pp. 1173-82.

Mathieu, J.E. and Taylor, S.R. (2006), "Clarifying conditions and decision points for mediational type inferences in organizational behavior", Journal of Organizational Behavior, Vol. 27 No. 8, pp. 1031-56.

Shrout, P.E. and Bolger, N. (2002), "Mediation in experimental and non-experimental studies: new procedures and recommendations", Psychological Methods, Vol. 7 No. 4,
pp. 422-45.

http://danielsoper.com/statcalc3/default.aspx

# TEST OF H4: THE MODERATION IMPACT OF MARKET MAVENS

**H4 explores the role that market mavens play in the relationship between attitude towards social media and intention to follow brands in social media**

**To test for this moderation effect I ran an additional model and differences in the $R^2$ were computed using an F test.**

**An interaction variable was created by multiplying attitude and market mavenism.**

**I standardized the indicators of all constructs to lower the correlation between the interaction and the original indicators.**

**Then used the calculated products between each indicator of the predictor (attitude) and the moderator (market mavenism) as indicators for the interaction construct.**

**The result of the moderating hypothesis indicates that the interaction between attitude and market mavenism has a significant positive impact on intention to follow brands in social media. ($\beta = 0.48$, $t = 10.16$).**

**That is, at higher levels of market mavenism, attitude has a stronger effect on intention to follow brands .**

**By including the interaction term, the variance explained on intention to follow brands increased significantly from 54.8 percent to 67.3 percent. The change in $R^2$ of 0.548 to 0.673 from the main effects model to the full model with the interaction term is significant at the 0.01 level.**

**H4 is thus supported.**

# TEST OF H5

**Finally, there is a significant positive relationship between intention to follow brands and intention to purchase influenced by social media (β = 0.68, *t* = 32.57).**

**H5 is also supported.**

**The $R^2$ value represents the amount of variance in a variable that can be explained by its independent variables, indicating the predict power of the model (Chin and Newsted, 1999).**

**The structural model explains 32.6 percent of the variance in attitude towards social media, 54.8 percent of the variance in intention to follow brands in social media and 51.4 percent of the variance in intention to purchase influenced by social media.**

**In accordance with the categorization of effect sizes by Cohen (1988); small: 0.02; medium: 0.13; large: 0.26), all of these effect sizes are large ($R^2$ values of between 0.326 and 0.673).**

Cohen, J. (1988), Statistical Power Analysis for the Behavioral Sciences, 2nd ed., Lawrence Earlbaum Associates, Hillsdale, NJ.

# MANAGERIAL IMPLICATIONS

**It is in the company's interest to nurture the followers of their social page by providing instructions, answers to frequently asked questions, and generally, creating an environment conducive to customer engagement, where customers receive useful information and feel safe in voicing their opinions.**

**By engaging market mavens, marketers can better diffuse messages about products and/or services that may otherwise lack consumer interest.**

# LIMITATIONS

**The main objective of this study was NOT to develop a comprehensive model of all the drivers that enhanced an individual consumer's purchase intention in social media, but rather, to take a first step toward developing a simple perceptual model of predictors of purchase motivation and propensity to follow brands in social media that could be tested on the consumers who were** knowledgeable **about social media.**

# DIRECTIONS FOR FUTURE RESEARCH

**What personality traits and lifestyle variables might predict purchase intention through social media?**

**How should the brands engage with the followers in social media to generate higher conversions?**

**What are the various ways through which purchase intention could be generated through social media?**

**The analysis of the moderating effect of experience, since it can change the results obtained.**

**Mercy!**