

**Barriers Influencing the Use of Social Media by
Mississippi State University Extension Professionals**

Dr. Jamal Alotaibi

Dr. Kirk A. Swortzel

School of Human Sciences

Box 9745

Mississippi State, MS 39762-9745

662-325-7837

kirk.swortzel@msstate.edu

Barriers Influencing the Use of Social Media by Mississippi State University Extension Professionals

Introduction/Need for Research

Social media platforms have expedited the communication process in everything people do (Ellison & Boyd, 2008). While Extension personnel use social media platforms to communicate with clientele on the national, state, and local levels, not everyone can use social media effectively. Social media can be a powerful and effective communication tool for Extension to deliver educational programs and build relationships with its clientele (Mains et al., 2013), but identifiable barriers exist influencing the adoption of social media by Extension professionals. Such barriers include organizational structure (Seger, 2011), training, control, time, and money (Diem, Gamble, Hino, Martin, & Meisenbach, 2009; Newbury et al., 2014), technical support (Redmann & Kotrlik, 2004), the characteristics of social media (Chan-Olmsted, Cho, & Lee, 2013), demographic characteristics (Kotrlik & Redmann, 2005), and self-efficacy (Hopp & Gangadharbatla, 2016). While Mississippi State University Extension has adopted a strategy to utilize social media with its clients, are agents comfortable with using social media to communicate with their clients or are they challenged to use social media effectively?

Conceptual or Theoretical Framework

The Technology Acceptance model (Venkatesh, Morris, & Davis, 2003) was used as the conceptual and theoretical frameworks for this study. The Technology Acceptance Model describes technology acceptance and adoption (Davis, 1986) and is the most broadly used model related to user acceptance and usage (Tsai, 2014). Davis developed the Technology Acceptance Model, adapting it from the Theory of Reasoned Action, provide a basis for finding the impact of external factors on inner beliefs, attitudes, and intentions (Davis, Bagozzi, & Warshaw, 1989). The factors that influence the technology adoption or use in this model are the perceived ease of use and perceived usefulness.

Methodology

The purpose of this study was to investigate what social media platform Extension employees were using as a communication tool to deliver educational programs, and to examine factors affecting Extension employees' attitude toward using social media with Mississippi State University Extension. An online questionnaire was administered through Qualtrics to all 290 Extension agents and specialists working for Mississippi State University Extension. The survey was divided into six sections. Section four collected the data reported in this abstract regarding the effect each barrier on their social media use in their Extension efforts. For this study, 170 agents and specialists completed the questionnaire for a 59% response rate. Frequencies and percentages were used to summarize responses for the 37 statements. Principal component analysis with polychoric correlation was applied on the 37 items of the scale to reduce the items into factors that could be identified affecting social media usage.

Results/Findings

Respondents rated 37 organizational and social media barriers using the Likert-type scale to indicate the effect each had on being a barrier to their social media use: 1 = No Effect, 2 = Minor Effect, 3 = Neutral, 4 = Moderate Effect, and 5 = Major Effect. For those respondents who

regularly used social media ($n = 148$), the following five barriers had a neutral effect of their social media usage: “Clients lack skills to use social media” ($M = 3.01$), “Changing social media platforms popularity” ($M = 2.87$), “Lack of time to prepare and update content for social media” ($M = 2.85$), “Not knowing which social media platform is preferred by clients” ($M = 2.84$), and “Lack of a reward structure to recognize Extension employees for using social media” ($M = 2.76$).

For those 22 respondents who did not use social media, the “Lack of time to prepare and update content for social media” ($M = 3.60$) was rated as having a moderate effect on their social media usage. The next four highest rated statements has a neutral effect on their non-users social media usage: “Lack of necessary knowledge and skills for using social media effectively” ($M = 3.00$), “Not knowing which social media platform is preferred by clients” ($M = 2.95$), “Lack of interest to use social media” ($M = 2.90$), and “Lack of time to learn about updated tools on social media” ($M = 2.85$).

Principal component analysis with polychoric correlation and direct oblimin rotation was used to reduce the 37 statements into factors that could be named being a barrier to social media use. Five factors were extracted explaining 81.4% of the variance and using 19 (51.4%) of the original 37 items. The five components explained 50.12%, 12.80%, 7.71%, 5.98%, and 4.75% of the total variance, respectively. The five components were named as follows: Factor 1: Social Media Characteristics, Factor 2: Organizational Support, Factor 3: Graphic Skills, Factor 4: Clients' Interest and Skills, and Factor 5: Availability of Equipment and the Internet.

Conclusions

Social media users and nonusers ranked organizational and social media barriers much differently. Both social media users and nonusers indicated that clients' interest and skills factor had a neutral effect on their social media usage. For social media users, organizational support, graphic skills, social media characteristics, and the availability of equipment and the Internet had minor effects on Extension specialists' and agents' social media use in Extension. Social media nonusers believed graphic skills, social media characteristics, organizational support have a minor effect on the use of social media in Extension, but the availability of equipment and the Internet has no effect.

Implications

Extension administrators need to design a reward structure to recognize Extension faculty and agents for using different social media platforms in Extension. Furthermore, results from this study should be used in staff development programs and training fields to facilitate upcoming social media training efforts for those who do and do not use social media.

References

- Chan-Olmsted, S. M., Cho, M., & Lee, S. (2013). User perceptions of social media: A comparative study of perceived characteristics and user profiles by social media. *Online Journal of Communication and Media Technologies*, 3(4), 149- 178.
- Davis, F. (1986). *A technology acceptance model for empirically testing new end-user information system: Theory and results*. Unpublished doctoral dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Davis, F., Bagozzi, R., & Warshaw, P. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1003.
- Diem, K., Gamble, K., Hino, J., Martin, D., & Meisenbach, T. (2009). *Assessing county Extension programs' readiness to adopt technology; An OSU case study of two Oregon counties*. Oregon: Author. Retrieved from <http://extension.oregonstate.edu>.
- Ellison, N. B., & Boyd, D. M. (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication*, 13(1), 210-230.
- Hopp, T., & Gangadharbatla, H. (2016). Examination of the factors that influence the technological adoption intentions of tomorrow's new media producers: A longitudinal exploration. *Computers in Human Behavior*, 55, 1117-1124.
- Kotrlik, J. W., & Redmann, D. H. (2005). Extent of technology integration in instruction by adult basic education teachers. *Adult Education Quarterly*, 55(3), 200-219.
- Mains, M., Jenkins-Howard, B., & Stephenson, L. (2013). Effective use of Facebook for Extension professionals. *Journal of Extension*, 51(5). Retrieved from: <http://www.joe.org>.
- Newbury, E., Humphreys, L., & Fuess, L. (2014). Over the hurdles: Barriers to social media use in Extension offices. *Journal of Extension*, 52(5). Retrieved from <http://www.joe.org>
- Redmann, D., & Kotrlik, J. (2004). Analysis of technology integration in the teaching- learning process in selected career and technical education programs. *Journal of Vocational Education Research*, 29(1), 3-25.
- Seger, J. (2011). The new digital [st] age: Barriers to the adoption and adaptation of new technologies to deliver extension programming and how to address them. *Journal of Extension*, 49(1). Retrieved from <http://www.joe.org>.
- Tsai, C. H. (2014). Rural residents' acceptance towards a telehealth system: The integrative perspective of technology acceptance model and social cognitive theory. *Scientific Research and Essays*, 9(9), 380-383.
- Venkatesh, V., Morris, M., Davis, G.B., & Davis, F.D. (2003). User acceptance of information technology: Toward a unified view, *MIS Quarterly*, 27(3), 425-78.