A Study Exploring the Perception of Technology Readiness and Use of Social Media by Independent Insurance Agents in Illinois

An Undergraduate Research Scholars' Project Conducted Under the Guidance of the 2012 Hinderliter/Katie Insurance
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Abstract

This study looks into the behaviors and perception concerning the use of social media by independent insurance agents in the Midwest, more specifically Illinois. By conducting this research, we hoped to understand the benefits of using social media in relation to the perceptions and behaviors currently exercised. We want to find out whether the time and money that could be assigned to growing and supporting the use of social media on the agency side of business would be for the greater good or whether efforts should be focused elsewhere. As has been apparent in the news media lately, there are good and bad ways to use social media in support of day-to-day business. The goal of this study is to get a grasp on the insurance agents' current use of social media in support of the agency and how the benefits of doing this are perceived.

Undergraduates within the Katie School of Insurance and the College of Business at Illinois State University conducted the study. Three faculty members from within the same departments helped to facilitate the project. A sample was taken that was made up of mainly older, male, and experienced insurance agents.

Many highlights developed from the study, which include:

1. The survey results point out that Facebook and other social media networks are familiar to the sample of respondents. Also, the general consensus is that spending the time and money on gathering and using social media as a business tool could prove to be a beneficial business venture. However, these current uses (see Figure 6) and possible motivating factors (see Figure 8) do not seem to be translating into the agents' intentions to develop their social networking practices within their agencies (see Figure 7). If agents truly intend to make greater use of social media tools in support of the business, there should be a different set of success matrices in place besides only increasing revenues. The group seems to be convinced of the potential for business success in using social media. We suggest further investigation of the agents' motivation compared to social media tools and practices.

2. The findings from conducting cross-tabulation analyses show that demographics such as gender, age, and experience are not associated with the behaviors and perceptions in relation to the use of social media. Keep in mind the sample of respondents are mostly older, male, and experienced agents. Be aware that it may be difficult to apply the findings in a general manner to other situations without conducting further investigations.

3. In looking at the study from a psychographic perspective, based on Parasuraman and Colby's (2001) Technology Readiness Index (TRI), many of the agents see themselves as mostly technology ready.

4. In calculating the TRI scores, the results shown are casually associated with (1) the intent of agents to use social media more heavily in support of the business and (2) the view of how effective heavier use would be for the agency. Also, and surprisingly, the single-item survey question of self-perceived TR (Q26) is only slightly related to the calculated TRI scores (ρ = .517). What this means is that the two ways of measuring the TRI score may be inadvertently measuring different things.

5. In comparison to the findings of Parasuraman and Colby (2001), our findings are consistent with the results of the TR score becoming lower as the respondent's age is greater.

6. Overall, to summarize, and not in line with what we had originally expected, the results show little predictive validity for the agents we surveyed concerning the perceptions and/or behaviors in using social media in support of the agency.

We will present and discuss what our findings implicate and what we recommend for possible adoptions of using social media in support of business practices.

Introduction

This article reports the findings of a research project exploring the perceptions and uses of social media by independent insurance agents in the Midwest, more specifically Illinois. This study represents the inaugural effort of the Katie Insurance School Undergraduate Research Scholars Program at Illinois State University. This research was conducted for a client made up mainly of independent insurance agents operating agencies in Illinois and will remain anonymous. The findings of our research generally point to (1) more agents than we had originally foreseen indicated use of Facebook and other social media in a personal aspect and in support of their agencies (not as much for the agency in comparison) and (2) technology readiness is not the main difference in using Facebook as a tool for supporting the agency among a mostly older, male group of independent agents in Illinois.

The balance of this document is broken down into several sections. First, the historical background of the project is discussed. Second, the underlying theory of research questions is covered. Third, the methods used to statistically and empirically test the identified research hypotheses are explored and explained. Fourth, the findings of the analyses are reported and interpreted. Last, the recommendations based on the results are offered for consideration.

Historical Background

This project derived from collaboration among three parties: the Hinderliter Chair of Business at Illinois State University, the Katie Insurance School, and the client. The Hinderliter business chair worked with James R. Jones, CPCU, AIS, ARM, AIC, of the Katie Insurance School to develop an Undergraduate Research Scholars Program with the purpose of engaging undergraduate students in practical, real-world business research of sufficient quality to contribute to and influence current business practices. The Katie Insurance School generously contributed a $500 scholarship for up to six students selected from student volunteers from (all majors) within the College of Business who possess at least a 3.0 GPA (on a four-point scale). Students were solicited via a personal e-mail from the dean of the College of Business. Six students were selected after personal interviews by the Hinderliter Chair, representing a variety of academic majors (marketing, insurance, management, and accounting) within the College of Business.

Jones developed a research opportunity for the initial project by working with the client. The basic question faced by the client is whether to invest in/pursue training, development, and service support for independent insurance agents in relation to social networking. Therefore, the overall research objective of this initial exploratory project generally concerned gaining a better (exploratory) understanding of independent insurance agents' perceptions and practices related to social networking.

Underlying Theory

Social media and networking have hugely integrated their presence into our society as of late. Using social media as a business tool has grown in a big way, but companies have yet to come up with a winning formula to incorporate its use in successful business applications. We continue to see how using these tools can affect a company negatively. Figure 1 shows a slide from a recent study of literature conducted by the Hinderliter Chair and another faculty member (Taylor and Weiland) concerning their consensus on the best practices in using social media in support of business operations.

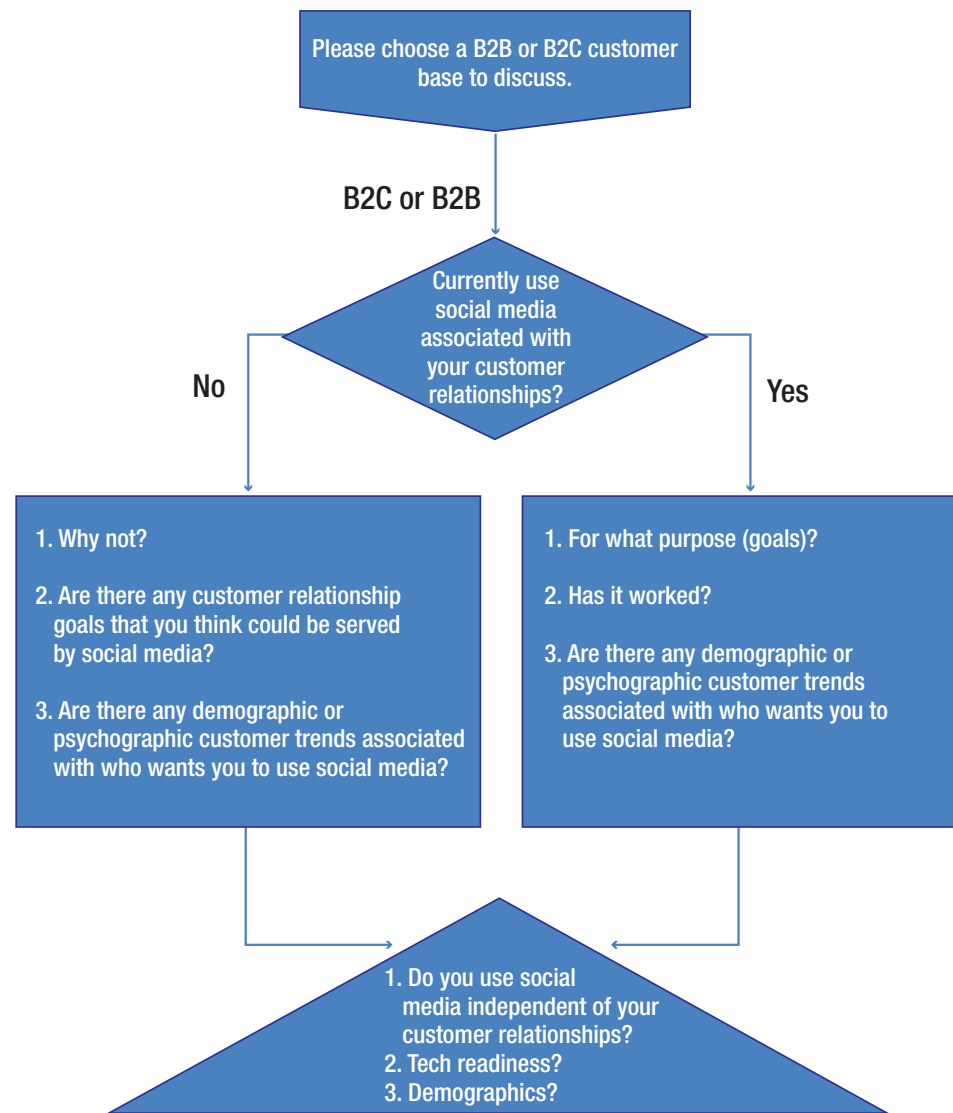**Figure 1: Social Networking Best Practices
(Taylor and Weiland, 2011)**

Basically, Taylor and Weiland's (2011) literature review concludes that there is still much left to find out about the best business practices based on social media as it exists today. As the social media landscape and business world are changing greatly, the lines are becoming blurred as to how to generally state the best way to use social networking in support of business practices across many industries. In discussing these best practices with the client, the possibility of either positive or negative effects concerning the use of social media supporting independent insurance operations may be an unfamiliar concept to the agents. Keeping this in mind, we decided to develop an exploratory survey-based research project to begin to understand the independent insurance agents' perceptions and practices in support of agency activities. Figure 2 presents the logic driving the development of the following study.

What Did We Measure?

In looking at Figure 2 on page 5, it shows the study recommends identifying the participants' social media uses and how they view social networking, from an agency and from a personal standpoint. The social media usage selected for this research study included the current usage of existing social media tools (Facebook, Twitter, a website, etc.) for either personal use or agency use (represented by yes/no answers). We also collected a number of five-point responses measuring (1) the intent of the survey participant to "develop or enhance" their existing and/or agency social networking accounts; (2) the outlook on the business value for using social media in support of agency operations; and (3) the probability that using social media would translate into positive marketing outcomes relating to sales conversions, building relationships with customers, and/or personal brand-building as an independent insurance agent. One limitation of the study was to constrain the survey to at most the front and back of a single sheet of paper.

Figure 2: Logic of Project Development

Draft Questionnaire Design

Please choose a B2B or B2C customer base to discuss.

B2C or B2B

Currently use social media associated with your customer relationships?

No   **Yes**

1. Why not?

2. Are there any customer relationship goals that you think could be served by social media?

3. Are there any demographic or psychographic customer trends associated with who wants you to use social media?

1. For what purpose (goals)?

2. Has it worked?

3. Are there any demographic or psychographic customer trends associated with who wants you to use social media?

1. Do you use social media independent of your customer relationships?
2. Tech readiness?
3. Demographics?

In addition, we searched for any possible group differences based on demographics and/or psychographics. The *demographic*[1] segments chosen for consideration included gender, age, and experience as an independent insurance agent (years). These segments were selected based on discussions with the client and form the foundation of the first set of research hypotheses:

H1: A significant proportion of independent insurance agents in Illinois currently use Facebook for purposes of *personal* social networking.

H2: A significant proportion of independent insurance agents in Illinois currently use Facebook for purposes of *agency* social networking.

H3: A significant proportion of independent insurance agents in Illinois possess a strong intention to "develop or enhance" for purposes of *personal* social networking.

H4: A significant proportion of independent insurance agents in Illinois possess a strong intention to "develop or enhance" for purposes of *agency* social networking.

H5: A significant proportion of independent insurance agents in Illinois perceive that developing and using social networking tools in their *agency* practice would be worth investment.

H6: A significant proportion of independent insurance agents in Illinois perceive that developing and using social networking tools in their agency practice would yield positive marketing outcomes.

H7: The use of social networking tools for personal use varies by gender.

H8: The use of social networking tools for agency use varies by gender.

H9: The use of social networking tools for personal use varies by age.

H10: The use of social networking tools for agency use varies by age.

H11: The use of social networking tools for personal use varies by agent's experience.

H12: The use of social networking tools for agency use varies by agent's experience.

Potential *psychographic*[2] group differences were also looked at. The idea of technology readiness (TR) was conceptualized by Parasuraman and Colby (2001) to reflect the critical concepts for successfully marketing innovative products and services that are technology intensive. To explain what TR is leads to a discussion of a person's own perception of his or her ability and willingness to take on and use new technologies in support of business and/or personal goals. A typical discussion about what TR is usually includes that it (1) varies among individuals, (2) is multifaceted, and (3) predicts and explains how consumers respond to new technologies.

The main reason we really were interested in the TR tool is because of the possible capabilities to predict and explain responses to using new technologies. This offered us the chance to explain the psychographic variables explored in the survey.

The TR developers, Parasuraman and Colby, next developed the technology-readiness index (TRI) as a way of measuring the idea of TR through conducting a survey of consumers. In their development process, they discovered four differentiating segments of TR, including (1) optimism and innovativeness, which serve as contributors increasing an individual's TR, and (2) discomfort and insecurity, which act as inhibitors of TR. They also developed a shorter version of the measuring tool consisting of only ten surveyed items. Our research survey used the shortened version of the TRI (See Appendix A).

Our research considered whether the behaviors and perceptions of using social media varied by TR score in examining the psychographic segmentation. The reasoning behind using the TR to potentially get a better look into the psychographic segmentation is that it is assumed independent insurance agents would most likely have to possess a higher TR score to have the capability and the wherewithal to effectively adopt and use present and developing social media tools in support of their business needs. Keeping this in mind, it led us to the final set of hypotheses:

H13: The intention of the respondent to "develop or enhance" his or her existing personal social networking accounts is associated with TRI scores.

H14: The intention of the respondent to "develop or enhance" his or her existing agency social networking accounts is associated with TRI scores.

H15: Self-perceptions of TR are positively associated with perceptions of the value of investing in social networking in agency practice.

H16: Self-perceptions of TR are positively associated with perceptions of positive business outcomes with social networking in agency practice.

Methods

Our project and team members acquired the Institutional Review Board (IRB) approval before conducting any data collection (IRB #2011-0167).[3] This is common practice among research projects at Illinois State University. The population we were focused on surveying was primarily made up of independent insurance agents in the state of Illinois, but were also from states among the Midwest region.

The client, student researchers, and supporting faculty agreed on an opportunity to collect data from this population during an annual trade show and convention of independent insurance agents being held in East Peoria, Ill., from October 12–14, 2011. A plan was implemented, with the student researchers conducting data collection by approaching and requesting possible participants to fill out the survey instrument during the trade show and the sign-in process. This situation required the survey instrument to be a short physical form allowing the participants to quickly and effectively provide the requested data. All the surveys were secured and transported by the student researchers during the data collection process. There were 189 surveys collected by the research team. The possible participants were approached during the trade show and sign-in process by the student researchers, who identified themselves, why the study was being conducted, and who was benefiting from the study being conducted. Those who voluntarily agreed to participate were asked to fill out the survey as completely as possible and, as well as they could, to answer the questions honestly. They were also told that if they felt at all uncomfortable about answering the survey, they had no obligation to complete it. The data collected were input into an Excel spreadsheet that was then double-checked by a student other than the one who originally entered the data.

Results

Before considering the implications of the data, you as the reader are reminded that the data and the analyses are investigative in nature. The results of the different analyses are shown as visually as possible in a collection of tables. First is a visual description of the obtained sample. Second, the analyses of the participants' uses and perceptions in relation to social media are displayed. Third, cross-tabulation analyses of the participants' uses and perceptions in relation to social media are examined. Lastly, the TRI scores are shown and evaluated; our analyses included predictions about the respondents' possible uses and perceptions in relation to social media. At the end of each section, a short summary of the results is shown.

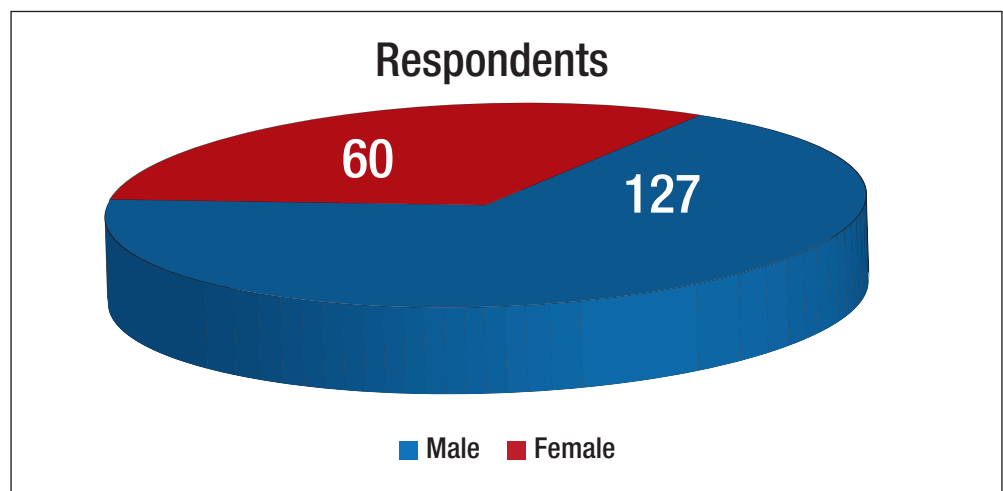## Figure 3: Sample Description by Gender
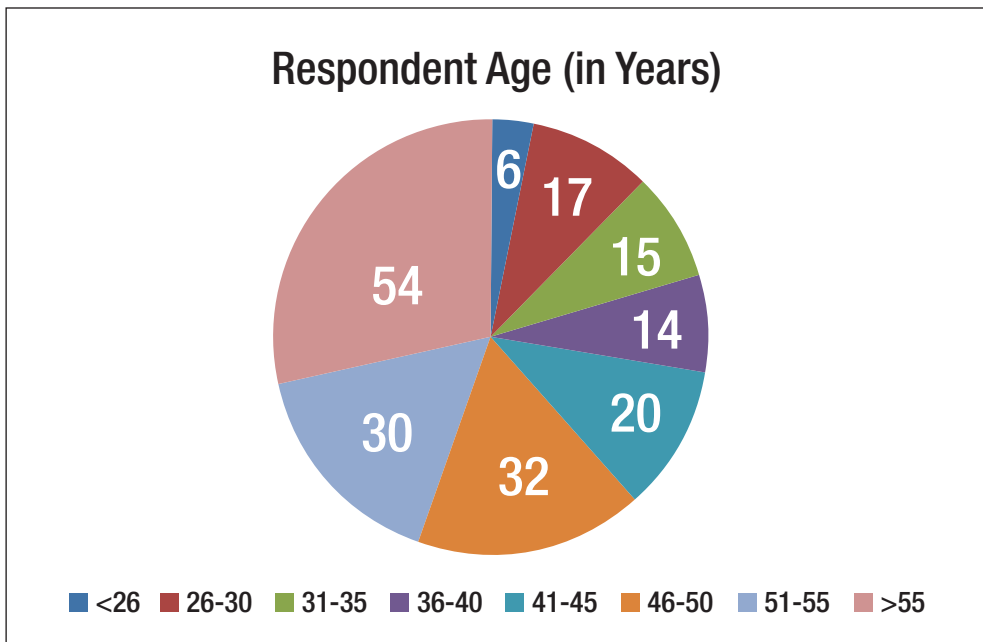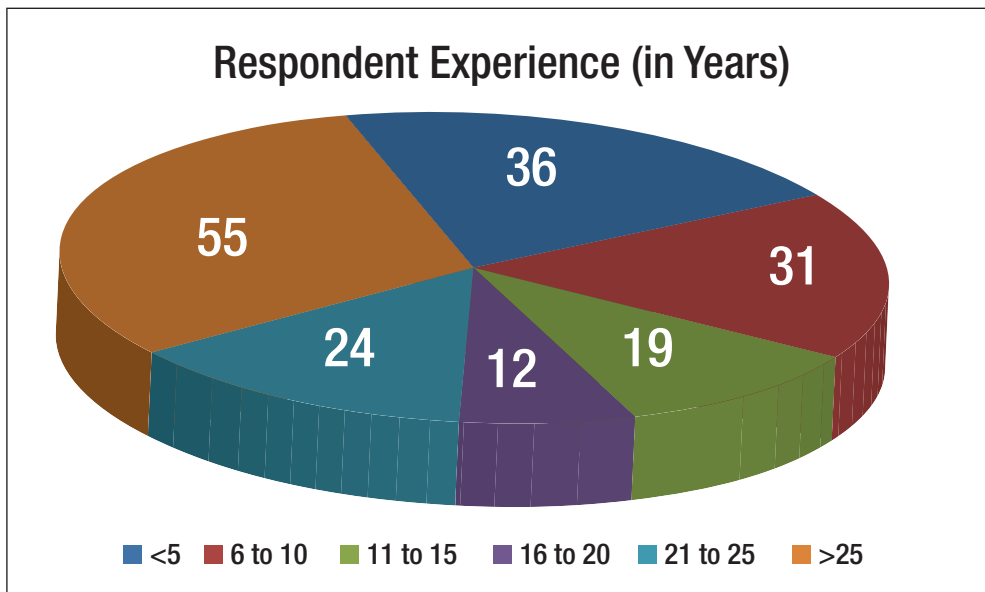
Figure 4: Sample Description by Age

Respondent Age (in Years)

6, 17, 15, 14, 20, 32, 30, 54

■ <26 ■ 26-30 ■ 31-35 ■ 36-40 ■ 41-45 ■ 46-50 ■ 51-55 ■ >55

Figure 5: Sample Description by Experience

Respondent Experience (in Years)

36, 31, 19, 12, 24, 55

■ <5 ■ 6 to 10 ■ 11 to 15 ■ 16 to 20 ■ 21 to 25 ■ >25

Summary

Figures 3–5 visually depict what has been previously stated about the demographics of the sample collected from. The sample is mainly made up of older, male insurance agents with many years of experience.

Summary of Results Associated With H1-H6

Figures 6–8 are associated with Hypotheses H1-H6. Figure 6 shows the respondents seem to, as a majority, be using social media in their personal lives as a means for entertainment and communication. Also, and surprisingly, more than 50 percent of the survey participants reported using some type of social media in support of their

agency operations. Besides from using social media the agents, report popularly, they use websites in support of agency operations. *This translates into our H1 being supported and H2 being only slightly supported.*

Figure 7 shows the participants' intentions to initially begin or further develop the use of social media in support of their agency operations. It shows their intentions to be "low" to "lukewarm" even as the data show their intentions to use social media for the agency in this context to be higher than for personal use. *This translates to our H3 and H4 not being supported in the instance of these collected data.*

Figure 8 shows an optimistic perception of the potential value in using social media in support of agency operations. Most agents foresee a value in using social media to build customer relationships, and also build and increase agency brand without having to invest an exorbitant amount of time or finances to run social media and networking tools. Furthermore, most of the survey participants agree that the use of social media could lead to a significant increase in conversion rates for the agency. *This translates to both hypotheses H5 and H6 being supported by the data.* These findings are peculiar when looking at what the data suggest about the agents' intentions from Figure 7.

Composed, the findings in this section show a familiarity among the respondents concerning Facebook and other social media tools. Even more so, the data show the overall thought process on social networking is that investing in social media tools in supporting agency operations has potential to provide positive business effects. Keep in mind though that the present use (see Figure 6) and possible motivators (see Figure 8) do not seem to transfer into the agents' intending to either begin or further develop the use of social media in support of business operations (see Figure 7). This group of agents seems to already have the mindset that the use of social media can offer positive business results. In order to more effectively recommend a set of actions surrounding the use of social media for the client, the data tell us more investigation is needed to better understand the motivating factors of the agents in using these tools.

Figure 6: Behavior Description by Social Networking Tool

Descriptive Analyses of Respondents' Behaviors and Perceptions Related to Social Networking
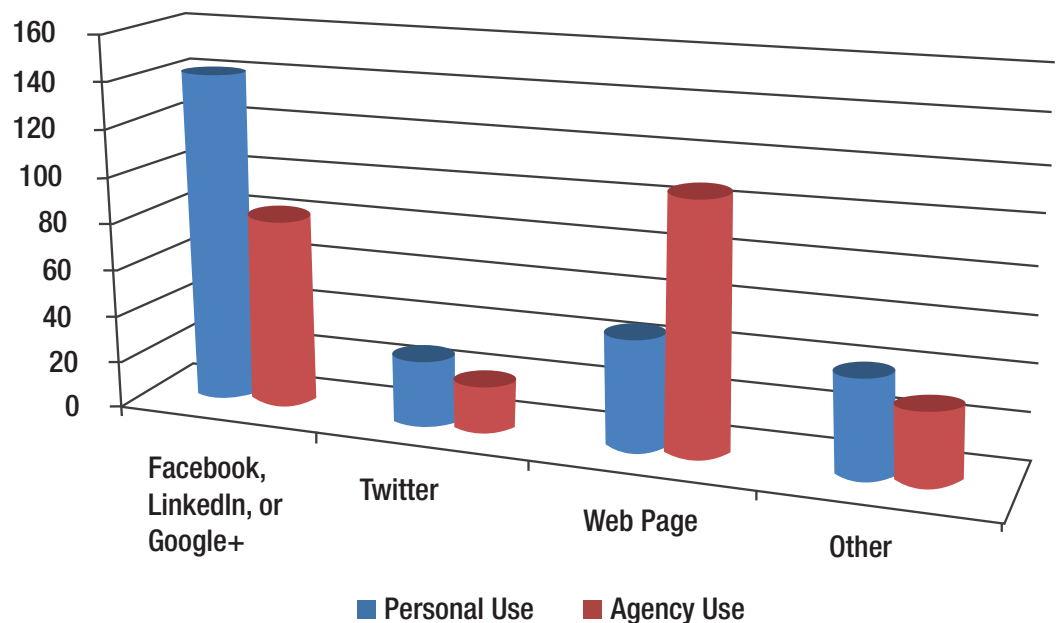
Figure 7: Mean Intention to Develop/Enhance by Social Networking Tool (5-point scale of 1–5)
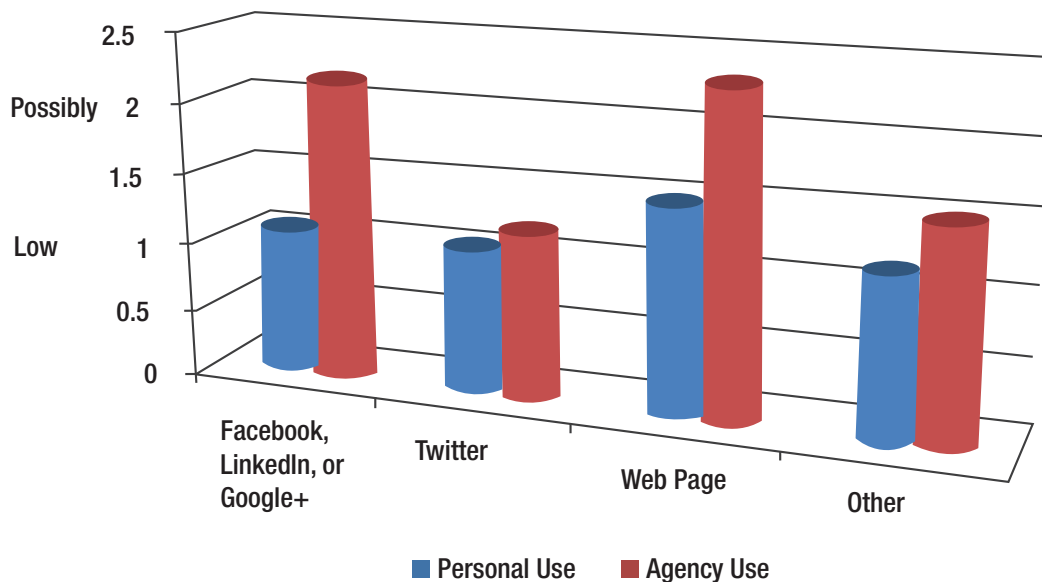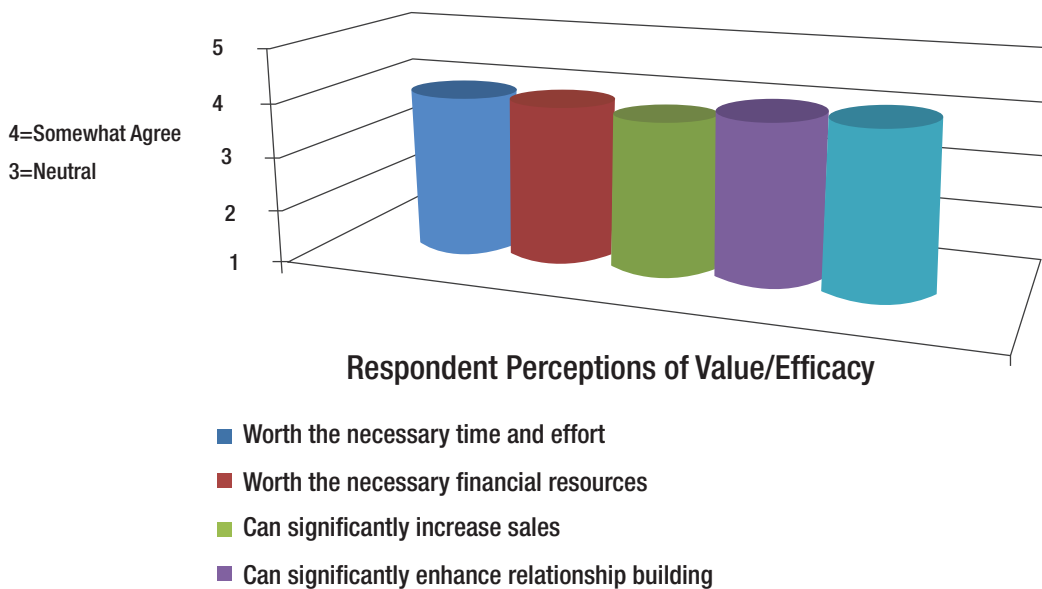

Figure 8: Mean Scores of Perceived Value/Efficacy of Social Networking Tools (5-point scale of 1-5)

Cross-Tabulation Analyses of Respondents' Behaviors and Perceptions Related to Social Networking

Hypotheses H7-H12 add to our descriptive analyses. We used cross-tabulation techniques in our analyses. Cross-tabulations are used to describe relations between variables. An example from this study is the use of social media tools, the outlook on how efficient using social media would be, and so on. These variables are analyzed versus another type of variable such as in this research: gender, age, and agent experience.

Table 1 provides the findings of our cross-tabulation analyses. Significant relations are shown in Table 1 by χ^2 *p-values smaller than .05*. Our analyses did not discover any significant relations between said demographic variables (gender, age, experience) and the uses/outlooks associated with social media.

Summary of Results Associated With H7-H12

Table 1 is associated with Hypotheses H7-H12 and shows the current usages and outlooks in relation to social media are not associated with the demographic characteristics of gender, age, or experience. However, readers must keep in mind the quite significantly uniform nature of the sample of respondents for this research in attempts to understand what the data are showing.

Table 1: Cross-Tabulation Analyses

Variable 1	Variable 2	x^2 p-values	Significance
	Facebook for Personal	0.166	None
	Twitter for Personal	0.2	None
	Website for Personal	0.435	None
	Other sn for Personal	0.48	None
	Facebook for Agency	0.24	None
	Twitter for Agency	0.167	None
Gender	Webpage for Agency	0.871	None
	Other sn for Agency	0.976	None
	Worth necessary time & effort	0.116	None
	Worth necessary financial resources	0.178	None
	Can significantly increase sales	0.147	None
	Can significantly enhance relationship building	0.785	None
	Can significantly increase my personal brand	0.434	None
	Facebook for Personal	0.403	None
	Twitter for Personal	0.15	None
	Website for Personal	0.962	None
	Other sn for Personal	0.811	None
	Facebook for Agency	0.118	None
	Twitter for Agency	0.929	None
Age	Webpage for Agency	0.818	None
	Other sn for Agency	0.867	None
	Worth necessary time & effort	0.235	None
	Worth necessary financial resources	0.668	None
	Can significantly increase sales	0.248	None
	Can significantly enhance relationship building	0.254	None
	Can significantly increase my personal brand	0.167	None

Table 1: Cross-Tabulation Analyses (Continued)

Variable 1	Variable 2	x^2 p-values	Significance
	Facebook for Personal	0.799	None
	Twitter for Personal	0.111	None
	Website for Personal	0.581	None
	Other sn for Personal	0.407	None
	Facebook for Agency	0.789	None
	Twitter for Agency	0.733	None
Experience	Webpage for Agency	0.361	None
	Other sn for Agency	0.72	None
	Worth necessary time & effort	0.348	None
	Worth the necessary financial resources	0.661	None
	Can significantly increase sales	0.241	None
	Can significantly enhance relationship building	0.287	None
	Can significantly increase my personal brand	0.895	None

Consideration of Technology Readiness in Explaining Agents' Behaviors and Perceptions Related to Social Networking

TRI Description

As discussed earlier, we used the concept of technology readiness (TR) as a possible predictive psychographic variable in the context of the agents developing social media tools in support of their business operations. To reiterate what TR is, it (1) varies between individuals, (2) is multifaceted, and (3) predicts and explains how consumers respond to new technologies.

H13-H16 show a possibility in which the psychographic segmentation variables may very well offer a better way to support the use of social media for marketing processes, rather than using the demographic variables to predict this. As already stated, using the demographic variables probably does not offer the best solution for the client in building a marketing strategy. In deciding to use the TRI, we had anticipated it would offer a superior view of communication approaches for the different segments. Also, we wanted it to effectively measure the success of current communication efforts within different target markets. In conducting the research, we used the condensed version of the TRI measurement tool that included only ten items (see Appendix A). Appendix A also shows the instructions covering how to calculate and analyze the TRI score outcomes.

Descriptive Analyses of TRI Scores

TRI scores range from +16 to –16, with the more positive scores showing a greater technology readiness. Figure 9 offers the results of frequency analyses from the scaled-down ten-item TRI measurement tool. We also used a direct predicting question (Q26: I consider myself to be relatively proficient in embracing and using new technologies for accomplishing goals in home life and at work) to compare with the results of the ten-item measurement tool. Either tool (single or ten-item) used to measure TR shows this group of survey participants feel they are mostly "technology ready." Q26, the single-item question, more specifically correlates to only four of the ten question items receiving a neutral rating response. Basically, the survey respondents seem to see technology as expanding their hours of productivity (Q29) and making them more efficient in their occupation (Q35). The results in Figure 9 mostly show independent insurance agents in Illinois by means of psychographics see themselves as mainly technology ready.

Figure 9: Mean TRI Item Scores (5 point Likert scale of 1–5)
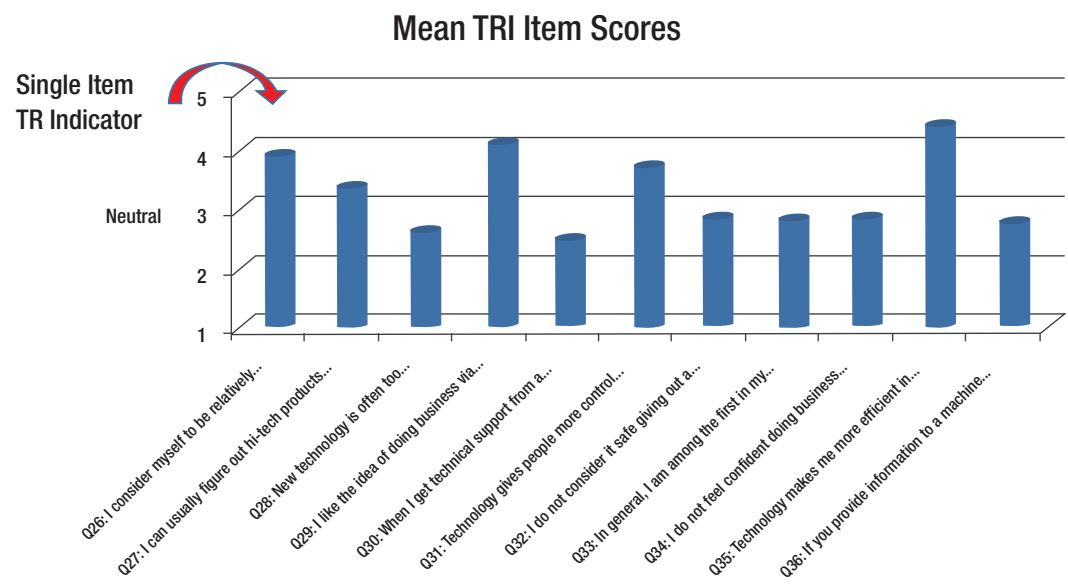
The following question we reflected on is whether the agents' insight about their technology readiness (TR) has any relation to their outlook and trust in how effective social media tools could be in support of agency operations. Table 2 offers correlations analyses to assist in answering this question. The findings start by suggesting the calculated TRI scores are only somewhat related to either (1) agents' intent to further develop social media in the support of business operations or (2) the outlook on how effective these developments could potentially be. *Basically, the final observation, which can be drawn from Table 2, is that H13-H16 are all somewhat supported by the results of the data collected from the surveys.* Another captivating point is that the single-item question (Q26) about the agents' own insight on their technology readiness shows only a moderate relation to the calculated TRI scores. One possible meaning of this is that what the respondents view about their own TR and what the authors (Parasuraman and Colby) meant to measure with their 2001 survey concept may have some varied differences. Keep in mind, while viewing and contemplating these findings, that minute differences within this sample of surveyed respondents may also explain the moderate relation.

Table 2: TRI Correlation Analyses

		tri	q12	q16	q20	q21	q22	q23	q24	q26
tri	Pearson Correlation	1	.294**	.260**	.169*	.122	.119	.170*	.124	.517**
	Sig. (2-tailed)		.000	.001	.034	.125	.135	.032	.120	.000
	N	165	157	151	159	159	159	159	157	165
q12	Intention to develop or enhance a Facebook, LinkedIN, or Google+ Account for personal use.	.294**	1	.704**	.421**	.396**	.361**	.328**	.433**	.301**
		.000		.000	.000	.000	.000	.000	.000	.000
		157	178	165	169	169	169	170	167	176
q16	Intention to develop or enhance a Facebook, LinkedIN, or Google+ Account for agency use.	.260**	.704**	1	.497**	.450**	.380**	.393**	.468**	.208**
		.001	.000		.000	.000	.000	.000	.000	.007
		151	165	170	166	166	166	166	164	168
q20	Believe that developing/using SN tools in agency practice would be worth time & effort.	.169*	.421**	.497**	1	.901**	.685**	.673**	.796**	.225**
		.034	.000	.000		.000	.000	.000	.000	.003
		159	169	166	177	176	176	176	174	177
q21	Believe that developing/using SN tools in agency practice would be worth necessary financial resources.	.122	.396**	.450**	.901**	1	.699**	.658**	.751**	.191*
		.125	.000	.000	.000		.000	.000	.000	.011
		159	169	166	176	177	176	176	174	177
q22	Believe that developing/using SN tools in agency practice can significantly increase sales.	.119	.361**	.380**	.685**	.699**	1	.601**	.707**	.190*
		.135	.000	.000	.000	.000		.000	.000	.011
		159	169	166	176	176	177	176	175	177
q23	Believe that developing/using SN tools in agency practice can enhance relationship building.	.170*	.328**	.393**	.673**	.658**	.601**	1	.721**	.227**
		.032	.000	.000	.000	.000	.000		.000	.002
		159	170	166	176	176	176	178	174	178
q24	Believe that developing/using SN tools in agency practice can enhance personal brand as an independent insurance agent.	.124	.433**	.468**	.796**	.751**	.707**	.721**	1	.186*
		.120	.000	.000	.000	.000	.000	.000		.014
		157	167	164	174	174	175	174	175	175
q26	Single-item self perceived TR	.517**	.301**	.208**	.225**	.191*	.190*	.227**	.186*	1
		.000	.000	.007	.003	.011	.011	.002	.014	
		165	176	168	177	177	177	178	175	186

Readers will note that q26 represents a single-item overall TRI question, whereas "tri' represents the calculate tri scores.
*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

Parasuraman and Colby (2001) point out that most TRI scores usually vary by age. We wanted to analyze and validate this assumption by conducting an ANOVA analysis, which was previously explained, to segment the TRI scores into three age categories (Age Group 1: <35 y/o, Age Group 2: 36-50 y/o, Age Group 3: >51 y/o). Figure 10 visually offers the results of these ANOVA analyses. We found the results to be statistically significant (F = 3.329, p = .038). *Consistent with the findings of Parasuraman and Colby (2001), the collected data show that as the survey participants' age is greater, their TR, on average, becomes lower.*

Figure 10: Mean TRI Item Scores (5-point Likert scale of 1-5) x Age
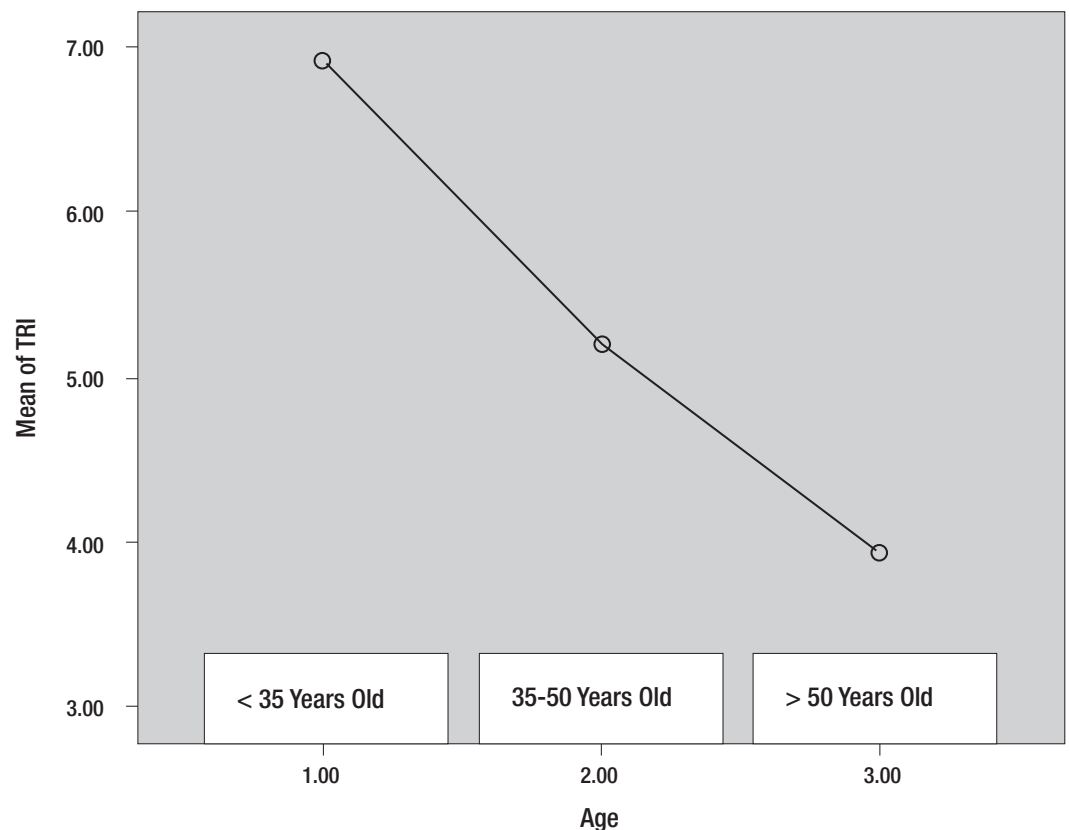
Cluster Analyses of TRI Scores

Using cluster analysis, Parasuraman and Colby identified five segments of TR consumers while developing their survey scale. Cluster analysis is basically used for identifying groups with uniformity within psychographic segments instead of demographic segments. In comparison to Parasuraman and Colby (2001), another researcher, Tsikriktsis (2004), replicated the TRI scale through cluster analysis; however, in his research, he sampled a population from England rather than the U.S. His findings resulted in only four homogenous cluster groups, not five. In consideration of this information, it is important not to disregard the results of the cluster analysis in our particular research study. Figure 11 visually shows the results of an exploratory cluster analysis using SYSTAT 13 (hierarchical method).

Figure 11: Cluster Analysis of TRI Scores
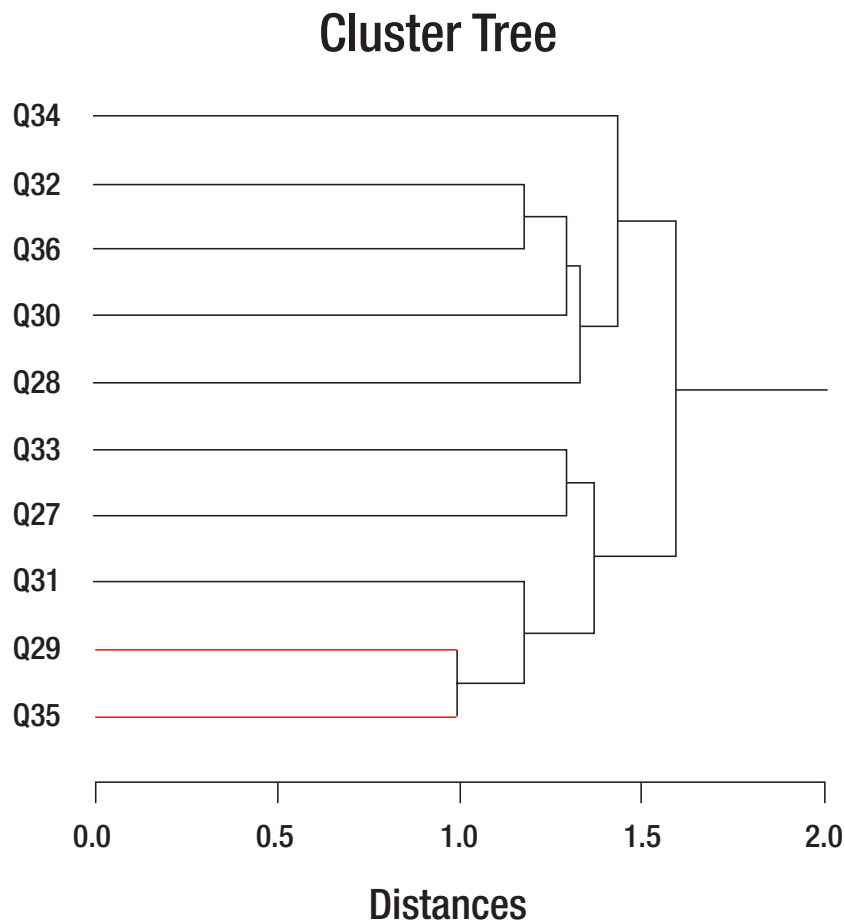
The findings shown here in Figure 11 advocate a varied set of solutions may be considered. Also, our results seem to differ from the five-cluster model discovered in Parasuraman and Colby's (2001) development. If you look back to Figure 10, the greatest mean TRI scores are all related with items found to be within the second general cluster group. Because of this, we recoded the two more general clusters for the following analyses.

Predictive Analyses of Respondents' Behaviors and Perceptions Related to Social Networking Based on TRI Scores

For the research client, the TRI scores and analyses may be best used by his or her organization to predict the outlook and usage of social media tools within his or her group of independent agents. If the TRI scores for this researched group do not relate to the predicted outlook and/or usage of the agents, it is best advised to pursue more investigation into the motivating factors that would better predict these. Because of the questions arising from the data, we conducted further analyses of the TRI scores in the hopes of the TRI predicting behaviors and perceptions of this researched group.

Table 3 shows the result of these analyses. It is a good idea to consider what the analyses results from Table 2 have displayed. As discussed earlier, there were slight differences between the single-item predictor of TR (Q26) and the calculated TRI score of .517. Because both of these measures tend to be measuring slightly different things, we

decided to run the predictive analyses using both TRI measures to allow for comparison of the results. *The results of the TRI scores turned out not to be a valid prediction method for these independent insurance agents' social media outlooks and practices.*

Table 3: TRI Predictive Analyses

Measurement Level	Dependent Variable	Independent Variable	Equation (Unstandardized)	R2	Conclusion
Continuous (Traditional Regression)	Q12	Q26	.440B	.09	Neither the direct measure or calculated measure of TRI appears to explain very much variance in Illinois independent insurance agents' perceptions of the business efficacy of social networking.
		Calculated TRI score	.068	.09	
	Q16	Q26	.316B	.043	
		Calculated TRI score	.064B	.067	
Ordinal (Logistic Regression)	Q4	Q26	-.617B	.089	Neither the direct measure or calculated measure of TRI appears to explain very much variance in Illinois independent insurance agents' present social networking behaviors.
		Calculated TRI score	-.136B	.129	
	Q5	Q26	-.326B	.032	
		Calculated TRI score	-.118B	.119	

Q12: "Within the next 12-24 months, the likelihood that I intend to develop or enhance each of the following types of social networking accounts **for my personal use** is ..." A Facebook, LinkedIn, or Google+ account — (0 = None, 4 = Very High).

Q16: "Within the next 12-24 months, the likelihood that I intend to develop or enhance each of the following types of social networking accounts **for my agency use** is ..." A Facebook, LinkedIn, or Google+ account — (0 = None, 4 = Very High).

Q4: "*I currently have an active version* of the following types of social networking accounts ..." A Facebook, LinkedIn, or Google+ account — (For My Personal Use, 1 = Yes, 2 = No).

Q5: "*I currently have an active version* of the following types of social networking accounts ..." A Facebook, LinkedIn, or Google+ account — (For My Agency Use, 1 = Yes, 2 = No).

Summary

Table 4 offers a summary of the findings associated with the research hypotheses essential to the current research.

Table 4: Summary of Study Hypotheses and Results

Hypothesis	Result	Interpretation
H1: The majority of independent insurance agents in Illinois currently use Facebook for purposes of *personal* social networking.	Supported	Together, the results in this section suggest that Facebook and other social networking tools are not unknown to this group of respondents. Further, there appears to be a general impression that investment in such tools for agency purposes can yield positive business outcomes. However, these existing behaviors (see Figure 6) and potential motivations (see Figure 8) do not appear to be translating to agents' intentions to increase the development of their social networking practices within their agencies (see Figure 7). If IIA's intention is to foster greater use of social networking within independent agents' practices within the state of Illinois, it appears that (marketing communication) arguments should be based on something other than potential positive business outcomes. This group already appears largely convinced of potential positive business outcomes associated with such efforts. This suggests the need for a future study of agents' motivations vis-à-vis social networking tools and practices.
H2: The majority of independent insurance agents in Illinois currently use Facebook for purposes of *agency* social networking.	Weakly Supported	
H3: Most independent insurance agents in Illinois possess a strong intention to "develop or enhance" for purposes of *personal* social networking.	Not Supported	
H4: Most independent insurance agents in Illinois possess a strong intention to "develop or enhance" for purposes of *agency* social networking.	Not Supported	
H5: Most independent insurance agents in Illinois perceive that developing and using social networking tools in their *agency* practice would be worth investment.	Supported	
H6: Most independent insurance agents in Illinois perceive that developing and using social networking tools in their *agency* practice would yield positive marketing outcomes.	Supported	
H7: The use of social networking tools for personal use varies by gender.	Not Supported	Table 1 is associated with Hypotheses H7-H12 and suggests that behaviors and perceptions related to social networking are not associated with the demographic characteristics of gender, age, or experience. However, readers are cautioned to consider the relatively homogenous nature of the sample of respondents for this study in efforts to interpret and/or generalize these results.
H8: The use of social networking tools for agency use varies by gender.	Not Supported	
H9: The use of social networking tools for personal use varies by age.	Not Supported	
H10: The use of social networking tools for agency use varies by age.	Not Supported	
H11: The use of social networking tools for personal use varies by agent's experience.	Not Supported	
H12: The use of social networking tools for agency use varies by agent's experience.	Not Supported	
H13: The intention of the respondent to "develop or enhance" his or her existing *personal* social networking accounts is associated with TRI scores.	Weakly Supported	Table 2 is associated with Hypotheses H13-H16. The results first suggest that calculated TRI scores are only weakly associated with both (1) intentions to further embrace social networking practices and (2) perceptions of the efficacy of such embrace. *Thus, the conclusion apparent from Table 2 is that H13-H16 are all Weakly Supported by the obtained data in this study.* Second, and interestingly, the single-item survey question of self-perceived TR (Q26) is only moderately related to the calculated TRI scores. This suggests that there may be some difference between what this cohort thinks "technology readiness" represents vis-à-vis Parasuraman and Colby's (2001) construct conceptualization. Readers should also consider that simple sample differences should be equally considered as an explanation.
H14: The intention of the respondent to "develop or enhance" his or her existing *agency* social networking accounts is associated with TRI scores.	Weakly Supported	
H15: Self-perceptions of TR are positively associated with perceptions of the value of investing in social networking in agency practice.	Weakly Supported	
H16: Self-perceptions of TR are positively associated with perceptions of positive business outcomes with social networking in agency practice.	Weakly Supported	

Implications and Recommendations

There are many implications and recommendations based on the research and analyses for this conducted research. First, we were assuming many of the participants may have been using social media for their own personal use. We were surprised to find out the number of respondents who stated they were already engaged in the use of social media in support of their agency operations. The data also revealed a popular consensus around the positive feelings that using social media in support of agency operations had true potential for being effective. Moreover, it seems there is little motivation to increase the use of social media among this group of independent insurance agents for the purpose of supporting the business activities. One question that arose out of conducting this research, which our data were unsuccessful in answering, is, What would be the motivating factors for agents to increase their adoption and implementation of social media tools in support of agency operations? This question provides a wonderful starting point for continued investigation in the future.

Second, in this case, the concept of being technology ready does not seem to be a motivating factor. At this time, the indication is not that a greater feeling of technology readiness among independent insurance agents will translate into this population's feeling there will be an increase in business success from increasing their use of social media tools. The agents already see themselves as largely "technology ready enough" and seem to already expect such outcomes. Finding out and testing what ideas could serve this group as motivating factors would be beneficial for further investigative studies.

Third, a positive finding for the client is that they can treat the older, experienced group of agents with an undifferentiated approach of communicating social media issues and information. This could be done instead of communicating separately across the varied segments within this group. This recommendation is supported by the results of the chi square test in Table 1. It is also suggested that additional psychographic segmentation variables should be investigated in future research.

Fourth, this conducted research was constrained to only a select few types of social media tools. It is recommended that the client conduct further studies looking into other avenues of social networking tools. Actually, some survey questions refer to the use of "other" tools. In each of these instances, some respondents are indeed using some other form of social media. It would be beneficial to know what these "other" tools are and in what capacity they could be implemented to support agency activities. The Hubspot Learning Center (http://learning.hubspot.com/blog) provides an excellent place to begin compiling resources for this purpose.

Finally, we have discussed other possible research avenues that could prove to be insightful. One instance was to survey what the customer's outlook is on the value of social media in dealing with their independent insurance agent. Also, a more specific look into the different options and tools within each individual social media network (i.e. Facebook, LinkedIn, and Google+) would offer a chance to see what differences were available and would be most beneficial in supporting agency activity.

Endnotes

1. Grewal and Levy (2012, p. 594) define *demographic segmentation* as "The grouping of consumers according to easily measured, objective characteristics such as age, gender, income, and education."

2. Grewal and Levy (2012, p. 601) *define psychographics* as "Used in segmentation; delves into how consumers describe themselves; allows people to describe themselves using characteristics that help them choose how they occupy their time (behavior) and what underlying psychological reasons determine those choices."

3. Individual team members also completed the mandatory research training. Their IRB training confirmation numbers are available upon request from Dr. Taylor.

Bibliography

Grewal, Druv, and Michael Levy, *Marketing*, 3rd ed. (New York: McGraw-Hill/Irwin, 2012).

Parasuraman, A., and Charles L. Colby, *Techno-Ready Marketing* (New York: The Free Press, 2001).

Taylor, Steven A., and Jamie Wieland, "Social Networking, Building Business Through Social Media," *Katie Insurance School Symposium Series*, presentation at Illinois State University, April 2011.

Tsikriktsis, Nikos "A Technology Readiness-Based Taxonomy of Customers, *Journal of Service Research,* 7(1), 2004, pp. 42-52.

Appendix A: How to Calculate and Interpret a TRI Score

Calculating a TRI Score

Directions: Indicate whether you "strongly agree," "somewhat agree," are "neutral," "somewhat disagree," or "strongly disagree" with the following statements:

Strongly Agree	Somewhat Agree	Somewhat Neutral	Strongly Disagree	Disagree
5	4	3	2	1

a. I can usually figure out new high-tech products and services without help from others.

b. New technology is often too complicated to be useful.

c. I like the idea of doing business via computers because you are not limited to regular business hours.

d. When I get technical support from a provider of a high-tech product or service, I sometimes feel as if I'm being taken advantage of by someone who knows more than I do.

e. Technology gives people more control over their daily lives.

f. I do not consider it safe giving out a credit card number over a computer.

g. In general, I am among the first in my circle of friends to acquire new technology when it appears.

h. I do not feel confident doing business with a place that can only be reached online.

i. Technology makes me more efficient in my occupation.

j. If you provide information to a machine or over the Internet, you can never be sure if it really gets to the right place.

Interpreting Responses to the TR Index

Compute your Technology Readiness Index as follows: (a+c+e+g+i)-(b+d+f+h+j) If your index score is....	Your percentile among the adult U.S. general population is....	You would be considered....
16	99%	
14	98%	
12	97%	Highly techno-ready
10	94%	
8	91%	
6	86%	
4	79%	Somewhat techno-ready
2	70%	
1	65%	
0	59%	
-1	51%	Average
-2	44%	
-4	34%	
-6	24%	Somewhat techno-resistant
-8	19%	Somewhat techno-resistant
-10	11%	
-12	7%	Highly techno-resistant
-14	5%	Highly techno-resistant
-16	2%	

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Appendix B: The Survey

Thank You for agreeing to complete this short but important survey about social networking practices for our client. Your honest answers will help your professional association better understand the possible issues related to social networking and insurance practices. **This survey will take less than five minutes to complete.**

First, we would like to know just a little bit about who is responding to this survey. This will allow us to properly generalize results. Your survey responses are anonymous.

1. My gender is: ❑ Male ❑ Female

2. My age (in years) is: ❑ < 26 ❑ 26-30 ❑ 31-35 ❑ 36-40 ❑ 41-45 ❑ 46-50 ❑ 51-55 ❑ > 55

3. In total, I have been an insurance agent for _____ years. ❑ < 5 ❑ 6-10 ❑ 11-15 ❑ 16-20 ❑ 21-25 ❑ > 25

These next questions concern your social networking practices. Please note that there are no "right" answers to these questions. Please honestly answer all the questions to allow for a full analysis of this information by the student research team. Again, your responses are anonymous.

4. I *currently have an active version* of the following types of social networking accounts...

(Please check all that apply.)	For My Personal Use		For My Agency Use	
A Facebook, LinkedIn, or Google+ Account	❑ Yes	❑ No	❑ Yes	❑ No
A Twitter Account	❑ Yes	❑ No	❑ Yes	❑ No
A Web Page	❑ Yes	❑ No	❑ Yes	❑ No
Any Other Internet-Based Social Networking Tool	❑ Yes	❑ No	❑ Yes	❑ No

5. Within the next 12-24 months, the likelihood that I **intend to develop or enhance** each of the following types of social networking accounts **for my personal use is ...**

(Please check one response per row.)	None	Low	Possibly	High	Very High
A Facebook, LinkedIn, or Google+ Account	❑	❑	❑	❑	❑
A Twitter Account	❑	❑	❑	❑	❑
A Web Page	❑	❑	❑	❑	❑
Any Other Internet-Based Social Networking Tool	❑	❑	❑	❑	❑

6. Within the next 12–24 months, the likelihood that I **intend to develop or enhance** each of the following types of social networking accounts **for my agency use...**

(Please check one response per row.)	None	Low	Possibly	High	Very High
A Facebook, LinkedIn, or Google+ Account	❑	❑	❑	❑	❑
A Twitter Account	❑	❑	❑	❑	❑
A Web Page	❑	❑	❑	❑	❑
Any Other Internet Social Networking Tool	❑	❑	❑	❑	❑

7. These questions concern how much value you expect from embracing social networking **in your agency practices.** There are no "right" answers to these questions. Please be candid.

I believe that learning how to develop and use social networking tools <u>in my agency practice</u>…

	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
will be worth the necessary time and effort.	❑	❑	❑	❑	❑
will be worth the necessary financial resources.	❑	❑	❑	❑	❑
can significantly increase sales.	❑	❑	❑	❑	❑
can significantly enhance relationship building.	❑	❑	❑	❑	❑
can significantly increase my personal brand as an independent insurance agent.	❑	❑	❑	❑	❑

8. These final questions generally concern your self-perceived computer technology readiness. Again, there are no "right" answers to these questions. Please be candid.

(Please check one response per row.)	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
I consider myself to be relatively proficient in embracing and using new technologies for accomplishing goals in home life and at work.	❑	❑	❑	❑	❑
I can usually figure out high-tech products and services without help from others.	❑	❑	❑	❑	❑
New technology is often too complicated to be useful.	❑	❑	❑	❑	❑
I like the idea of doing business via computers because they are not limited to regular business hours.	❑	❑	❑	❑	❑
When I get technical support from a provider of a high-tech product or service, I sometimes feel as if I'm being taken advantage of by someone who knows more than I do.	❑	❑	❑	❑	❑
Technology gives people more control over their daily lives.	❑	❑	❑	❑	❑
I do not consider it safe giving out a credit card number over a computer.	❑	❑	❑	❑	❑
In general, I am among the first in my circle of friends to acquire new technology when it appears.	❑	❑	❑	❑	❑
I do not feel confident doing business with a place that can only be reached online.	❑	❑	❑	❑	❑
Technology makes me more efficient in my occupation	❑	❑	❑	❑	❑
If you provide information to a machine or over the Internet, you can never be sure if it really gets to the right place.	❑	❑	❑	❑	❑

Thank You

<u>Optional</u> e-mail contact information: _____