

Success Factors Enhancing Brand Awareness: Adopting Social Media in Business Communication Activities

Oday Aswad*

This research examined attitudes of marketing managers in the Dubai's Architectural Engineering business, towards employing social media for brand awareness. To enhance, not replace, the conventional activities. The Technology Acceptance Model (TAM) was implemented, modified, and validated, as perceived risks and benefits were hypothesized to influence (explain) managerial attitudes. Calculations of a proposed statistical model were based on a PLS-SEM reflective approach. The literature review brought together this business's values, interests, and concerns that can associate social media usage. Perceived risks and benefits were summarized, categorized, and then mapped into the available extensions of the TAM model. Perceived Risks were categorized into; Operational and Business risks. The first represented the internal concerns such as human resources, time and cost. While the second covered reputational and security concerns that can influence manager's attitudes directly. Results showed comparable influences from perceived operational risks and benefits on attitude. Firms' managers showed high concern regarding their firms' reputation, while special appreciation was shown for audience's opinions. The shortage of knowledge among managers regarding implementing social media in business alerted for urgent awareness training. Managers were advised to focus on certain success factors through which social media can be governed, especially staff delegation and training, as their role was deemed to be the most important.

Keywords: Social Media, Perceived risks and benefits, Managerial attitude, Brand awareness, online marketing, business communication, target audience, influence networks.

JEL Code(s): M300, M370

1. Introduction

Architectural/Engineering (Arch/Eng.) firms used to market for their businesses by communicating their reputation and availability across networks. David Koren (2005, p. 55), considered a firm's reputation as its most important asset, accordingly, people's perspective is what firms need to pursue and influence.

The limited representation of Arch/Eng. firms in social media forced the audience to look somewhere else for information about brand awareness, industry values and concerns, even via unverified sources of information. The absence of official representation in social media

*Dr. Oday Aswad. The Swiss Business School Email: odayaswad@gmail.com

Aswad

exacerbated this miscommunication, which started to represent a reputational risk and loss of opportunities (Mathur, et al., 2012).

Firms' managers faced a paradoxical challenge when they attempted to engage with social media, whether to proceed but exposing their reputation and wasting their resources, or to disappear wasting potential opportunities and also facing the possibility of reputation damage. Managers according to Mintzberg (1973), are risk averse and resource oriented. Their attitudes, therefore, would be influenced by their perceptions about risks and benefits.

In terms of scope of work, the discipline of marketing, brand management, represents the main method of marketing in the Arch/Eng. business. As this service is deemed a leading subset within the construction industry, and is accounted for quality of all other participating disciplines to deliver a successful project. Regarding social media, this research is limited to the four platforms that were identified by the Construction Marketing Association – CMA in America, which are: Facebook, Twitter, LinkedIn, and You Tube. The location context for this study is Dubai, United Arab Emirates, the famous economic state that is an iconic construction capital within the Middle East. Marketing and senior managers were delegated to participate in this study, each on behalf of his/her firm.

After summarizing and classifying risks and benefits of implementing social media in the Arch/Eng. business, selecting an appropriate model was conducted in order to examine the attitude of this industry towards social media. At this point there was a need to extend the Technology Acceptance Model with new constructs that were related to risks and benefits. Then a process of validating the proposed model was executed. Developing the research questionnaire was the next step, which had to be selected from a pool of previous studies. Findings were exhibited that the newly proposed model fulfilled the objectives of this research within the context. After verifying the hypothesized influences and comparisons with the model findings, the conclusions suggested the success factors for managers by which they can orchestrate social media in their work. While, the recommendations brought out what researchers are to consider or avoid when for similar studies.

2. Literature Review

2.1 Perceived Risks and Benefits

Risks and benefits of implementing social media in the Arch/Eng. Industry were summarized in the past literature, though were re-ordered and categorized based on industry's managerial way of thinking, as the position in this research is to examine the influence of different perceived risks and benefits on the managerial attitude, especially those that are related to brand's image and audience's opinion.

2.1.1 Perceived Risks

Based on: McHale and Garulay (2012, p. 2), (Field & Chelliah, 2012), (Phippen & Ashby, 2013), (Ross, 2010), (Bondarouk, et al., 2013), Shaughnessy (2013), (Walter & Berkley, 2012, pp. 15-16), (Evans, 2010, pp. 123-125), (Shullich, 2011), (Azaroff, 2007), Phippen and Ashby (2013),

Aswad

(Field & Chelliah, 2012), Pekka Aula (2010), (McTiernan, 2012), (Arora & Predmore, 2013), and (Reputaion_Council, 2013), perceived risks are:

- a. Business Risks – a new construct
 - Reputational Risks (Social)
 - Security and Privacy-related Risks
 - Legal Risks

- b. Operational Risks – a new construct
 - Technical Performance
 - Time at Work
 - Financial
 - Psychological Impact of Inconvenience

2.1.2 Perceived Benefits

Based on: Castriotta et al. (2013), Choi and Chung (2009), (Sedej & Justinek, 2013), (Walter & Berkley, 2012, p. 45), (Tsimonis & Dimitriadis, 2014), (Dong-Hun, 2010), (Gruner, et al., 2013), (Henry & Bosman, 2013), (Brown, 2012, pp. 60-66), (New_Media_Age, 2010), (Fanion, 2011) and (O'Flynn, 2012), perceived benefits are:

- a. Exploiting Social Capital
 - Direct marketing of a company's services
 - Reputation and Brand Awareness: achievements, competency and thought leadership
 - Counting likes and followers
 - Monitoring: industry trends, competitors and influencers
 - Research and learning
 - Advocating causes of public interest such as global warming and women's employment.
 - Reach: expanding networks and connecting with new communities.

- b. Client Relationship
 - Getting closer to client needs, questions, and complaints
 - Maintaining a long-term relationship
 - Using clients as brand advocates

- c. Enhancing the recruitment process by using the available filtering tools. Nevertheless, radical discrimination is still a concern

2.1.3 Selecting the Model

Dr. Alrafi (2009, pp. 12-13) put emphasis on the tendency of managers to reject new systems of information and communication technology. They reject using them for reasons such as:

- 1- Lack of managerial experience with computer systems.
- 2- Lack of participation when developing their company's communication systems.
- 3- Lack of training on such systems for both managers and their subordinates.

At this point the Technology Acceptance Model was suggested for this research, as it makes it possible to explain behavior and attitude across a broad range of end-users of computer technologies (Davis, 1989). The TAM model was also selected based on comparison with other similar models like: Theory of Reasoned Action – TRA (Ducey, 2013), Theory of Planned Behavior – TPB (Ajzen, 1985), Technology Acceptance Model Two - TAM2 (Venkatesh & Davis, 2000), Technology Readiness Index – TRI (Parasuraman & Colby, 2001), The Technology Readiness Acceptance Model – TRAM (Lin & Sher, 2007), The Unified Theory of Acceptance and Use of Technology – UTAUT (Venkatesh, et al., 2003).

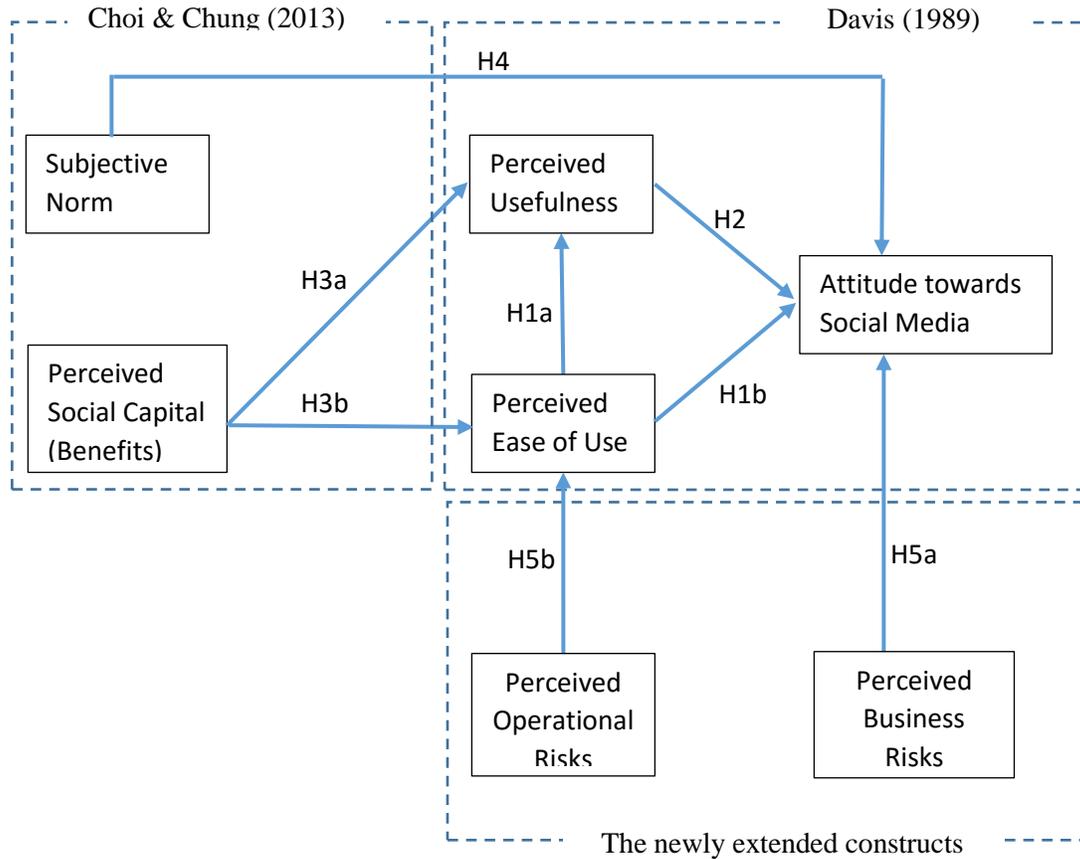
2.1.4 The Technology Acceptance Model (TAM)

TAM was introduced by Davis in 1989 as an application of the “Theory of Reasoned Action” (TRA) that was developed by (Fishbein & Ajzen, 1975), and focused on the behavioral intention. According to the TAM (Davis, 1989), user attitudes toward a new technology are a critical factor in their acceptance and usage. Perceived usefulness and perceived ease of use are the most fundamental determinants for formulating attitudes toward technology.

3. The Research Methods

This study considers two extensions to the TAM model by Choi (2013) and Crespo, et al. (2009). Choi's extension rationalizes the benefits that can be capitalized from the social awareness via the capabilities of online networking, while the Subjective Norm construct described the way audiences can motivate industry participants to engage with social media, simply because they are expected to do so by their audience. By the means of seven constructs in this model, eight hypotheses were suggested. Three hypotheses from the original Technology Acceptance Model (Davis, 1989), three were added by Choi and Chung (2013), and two more were suggested within Perceived Risks, although risks' facets were redistributed to be into two constructs; Business Risks and Operational Risks. (Figure 1)

Figure 1: The Proposed Model



3.1 Hypotheses

- H1a:** Perceived ease of use has a positive influence on the perceived usefulness of social media.
- H1b:** Perceived ease of use has a positive influence on attitude toward social media.
- H2:** Perceived usefulness has a positive influence on the attitude toward social media.
- H3a:** Perceived social capital has a positive influence on perceived usefulness of social media.
- H3b:** Perceived social capital has a positive influence on perceived ease of use of social media.
- H4:** Perception of subjective norm has a positive influence on attitude toward social media.
- H5a:** Perceived business risks, have a negative influence on attitude toward social media.
- H5b:** Perceived operational risks, have a negative influence on perceived ease of use of social media.

3.2 The Model Validation Tests

- 1- Face and Content Validity: It is "the degree to which the score or scale being used represents the concept about which generalizations are to be made" (Bohrnstedt, 1970, p. 91).

Aswad

Based on: Davis (1989), Kripanont (2007, p. 130), Hair et al. (2006), Featherman and Fuller (2003), and Crespo, et al. (2009), the Suggested Steps:

- a. To import validated question items from past literature's question pools that are related to each construct.
- b. To interview industry executives to evaluate the question items' fitness for the purpose of this research.
- c. To use Likert's scale of five levels of agreement to represent the experts' evaluation.

2- Construct validity: to tests how well the results obtained from use of the measure fit the theories around which the test was designed. (Campbell & Fiske, 1959). Based on: Zhang and Xu (2011), Hu, et al. (2011), Nair and Das (2012), Venkatesh, et al. (2003), and Tzou and Lu (2009), the Suggested Method is to run the Outer Model assessment test of the Partial Least Squares method.

Partial Least Square (PLS) was suggested as a structural equation modeling (SEM) estimation technique, which generates estimation of item loadings and path coefficients simultaneously. PLS-SEM is used for causal modeling when prediction and/or theory building is the goal. It explains variance in depending variables. Many scholars implemented PLS to analyze the structural equation model of the Technology Acceptance Model, including Zhang and Xu (2011), Hu, et al. (2011), Nair and Das (2012), Venkatesh, et al. (2003), and Tzou and Lu (2009)

3.3 Population and the Sample Size

According to Dubai Municipality, 471 active firms were practicing the Arch/Eng. Business in Dubai (Dubai_Municipality, 2014). The sample size targeted was influenced by factors like a confidence level of 95 percent, a margin of error of four percent, and a population size of 471. Calculations were performed by means of an interactive computer program available at: www.surveysystem.com. Accordingly, the sample size required, which was randomly selected, was 264 people who initially agreed to participate.

The response rate was 83.3 percent, as acceptable responses were collected from only 220 participants, despite all the efforts to shortlist and simplify the question items. This number of completed answers can still provide an acceptable margin of error of 4.83 percent, however, which is less than five percent, and a worst case scenario percentage of .50 determines a general level of accuracy. The sample size was therefore was deemed adequate as it scored more than the minimum observations required to estimate the structural equation modeling analysis that was provided by Hatcher (1994), which is more than (150). The number of completed answers was also consistent with the concept of the "critical sample size" of 200 for the SEM calculations, as suggested by Hoe (2008).

4. Findings

4.1 Validity and Reliability Results

The results confirmed this hypothesis by examining the established metrics such as the Cronbach Alpha, composite reliability, discriminant validity and convergent validity, outer loadings and cross loadings. All such measures were acceptable compatible with the benchmarks and norms of the PLS modeling, as listed below:

- 1- Cronbach’s Alpha and Composite Reliability: As shown in Tables 1 and 2, values indicated that the internal consistency of all the constructs was above the index of 0.7 and all were significant (P=0.000).
- 2- Average Variance Extracted (AVE) and Fornell–Larcker criterion: The AVE value of each of the latent constructs, as presented in Tables 3 and 6 is above 0.5. Fornell and Larcker began with an attitude percentage of .78 when (P = 0.000) which validates an acceptable degree of coherence of the items together under this construct. PU scored 74.2 percent when (P=0.000) also above the border and so on for the rest of the constructs, where their AVE scores were all validated and above the borderline of 0.5.

Table 1: Cronbach’s Alpha/Composite Reliability

	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistics (O/STERR)	P Values
Attitude	0.860	0.857	0.028	30.390	0.000
Business	0.822	0.823	0.037	22.382	0.000
Operational	0.839	0.836	0.033	25.668	0.000
PEOU	0.804	0.804	0.044	18.093	0.000
PSC	0.795	0.792	0.049	16.370	0.000
PU	0.851	0.850	0.028	30.822	0.000
SN	0.791	0.790	0.046	17.340	0.000

Table 2: Composite Reliability

Composite Reliability	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistics (O/STERR)	P Values
Attitude	0.914	0.913	0.016	58.498	0.000
Business	0.894	0.895	0.020	45.694	0.000
Operational	0.892	0.891	0.020	45.685	0.000
PEOU	0.884	0.885	0.023	38.269	0.000
PSC	0.880	0.879	0.025	35.137	0.000
PU	0.909	0.909	0.015	58.983	0.000
SN	0.877	0.877	0.024	36.879	0.000

Aswad

Table 3: Average Variance Extracted – AVE

Average Variance Extracted (AVE)	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistics (O/STERR)	P Values
Attitude	0.781	0.779	0.034	23.073	0.000
Business	0.738	0.742	0.039	18.808	0.000
Operational	0.675	0.674	0.043	15.524	0.000
PEOU	0.718	0.721	0.046	15.768	0.000
PSC	0.711	0.712	0.047	15.015	0.000
PU	0.770	0.771	0.033	23.582	0.000
SN	0.704	0.706	0.045	15.572	0.000

3- The Outer Loadings: As presented in Table 4, all of the T-Statistics were larger than 1.96, hence we can deduce that the outer model loadings are highly significant. The original estimate of the outer loadings is shown in the second column = Original Sample (O). This number is divided by the standard error (STERR), to get the T-value. For example, divide 0.89 (O) by 0.023 (STERR) to get 38.207 = the T-statistic (Table 4). The T-statistics in the mentioned table indicate that all measurement model loadings are statistically significant (> 0.05).

Aswad

Table 4: The Outer Loading

Outer Loading	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistics (O/STERR)	P Values
ATT_1 <- Attitude	0.890	0.889	0.023	38.207	0.000
ATT_2 <- Attitude	0.884	0.882	0.025	35.397	0.000
ATT_5 <- Attitude	0.877	0.876	0.028	31.357	0.000
PEOU_1 <- PEOU	0.837	0.837	0.037	22.385	0.000
PEOU_2 <- PEOU	0.848	0.849	0.040	21.212	0.000
PEOU_4 <- PEOU	0.857	0.859	0.037	23.263	0.000
PR_FIN_1 <- Operational	0.758	0.757	0.054	14.019	0.000
PR_PER_2 <- Operational	0.844	0.841	0.046	18.256	0.000
PR_PER_3 <- Operational	0.789	0.787	0.049	16.205	0.000
PR_SEC_1 <- Business	0.863	0.861	0.041	21.181	0.000
PR_SEC_3 <- Business	0.914	0.915	0.018	50.929	0.000
PR_SOC_1 <- Business	0.798	0.801	0.053	15.096	0.000
PR_TIM_1 <- Operational	0.889	0.888	0.026	34.076	0.000
PSC_2 <- PSC	0.852	0.855	0.040	21.149	0.000
PSC_3 <- PSC	0.754	0.747	0.068	11.163	0.000
PSC_5 <- PSC	0.915	0.916	0.018	50.238	0.000
PU_2 <- PU	0.826	0.826	0.046	18.075	0.000
PU_3 <- PU	0.916	0.916	0.016	55.947	0.000
PU_4 <- PU	0.888	0.888	0.025	35.340	0.000
SN_1 <- SN	0.810	0.810	0.048	17.011	0.000
SN_3 <- SN	0.832	0.829	0.041	20.231	0.000
SN_5 <- SN	0.875	0.877	0.023	37.686	0.000

4- Discriminant validity for the latent constructs: In Tables 5 and 6, the correlation matrix of those constructs which are canonical in nature will be squared and the AVE value of each (which is placed on the above matrix diagonal terms) should be higher than the maximum (max) squared correlation value amongst the rest of the constructs. For example, 74.2 percent (the AVE of Attitude) is higher than the max squared value of the other constructs (65 percent), which are the percentages .65, .53, .65, .55, .62, and .63 for Business, Operational, PEOU, PSU, PU, SN respectively and so on for the rest of the constructs, hence the discriminant validity of all constructs is achieved.

Aswad

Table 5: Correlation between the Latent Constructs

Correlation between the Latent Constructs	Attitude	Business	Operational	PEOU	PSC	PU	SN
Attitude	1.000						
Business	-0.802	1.000					
Operational	-0.727	0.817	1.000				
PEOU	0.807	-0.821	-0.812	1.000			
PSC	0.745	-0.799	-0.820	0.820	1.000		
PU	0.790	-0.839	-0.770	0.770	0.785	1.000	
SN	0.797	-0.726	-0.726	0.781	0.737	0.759	1.000

Table 6: Squared Correlation between Latent Constructs / AVE on Diagonal Terms

Squared Correlation between the Latent Constructs / AVE on Diagonal Terms	Attitude	Business	Operational	PEOU	PSC	PU	SN
Attitude	0.779						
Business	0.643	0.742					
Operational	0.529	0.667	0.674				
PEOU	0.651	0.674	0.659	0.721			
PSC	0.555	0.638	0.672	0.672	0.712		
PU	0.624	0.704	0.593	0.593	0.616	0.771	
SN	0.635	0.527	0.527	0.610	0.543	0.576	0.706
Discriminant Validity	Valid	Valid	Valid	Valid	Valid	Valid	Valid

5- Cross Loading: Table 7 demonstrates additional indicators of the correctness of the discriminant validity of each construct. Each item's loading should be highly correlated with its construct and minimally with the other constructs. For example, loading of Att_1 (87 percent) is higher than all other loadings on the other constructs and so on for the rest of the items.

Aswad

6- Path Coefficients: Examining the results of Table 8, drawn from the bootstrapping sample, it was found that the T-statistics of the path coefficients indicated that all eight structural path coefficients were statistically significant (< 0.05).

Table 7: Cross Loading Table for Additional Indication to the Correctness of Discriminant Validity

Cross Loading	Attitude	Business	Operatio nal	PEOU	PSC	PU	SN
ATT_1	0.880	-0.673	-0.620	0.712	0.666	0.682	0.720
ATT_2	0.884	-0.694	-0.676	0.717	0.654	0.698	0.718
ATT_5	0.877	-0.759	-0.632	0.709	0.656	0.713	0.676
PEOU_1	0.706	-0.669	-0.616	0.837	0.641	0.623	0.673
PEOU_2	0.651	-0.662	-0.663	0.848	0.690	0.669	0.643
PEOU_4	0.694	-0.751	-0.777	0.857	0.750	0.666	0.668
PR_FIN_1	-0.490	0.568	0.758	-0.577	-0.569	-0.515	-0.565
PR_PER_2	-0.650	0.723	0.844	-0.670	-0.676	-0.723	-0.590
PR_PER_3	-0.529	0.592	0.789	-0.604	-0.553	-0.539	-0.534
PR_SEC_1	-0.660	0.863	0.652	-0.666	-0.649	-0.711	-0.572
PR_SEC_3	-0.781	0.914	0.788	-0.786	-0.769	-0.810	-0.705
PR_SOC_1	-0.612	0.798	0.658	-0.653	-0.633	-0.628	-0.585
PR_TIM_1	-0.695	0.777	0.889	-0.791	-0.852	-0.724	-0.683
PSC_2	0.576	-0.667	-0.730	0.697	0.852	0.646	0.634
PSC_3	0.562	-0.607	-0.565	0.544	0.754	0.559	0.501
PSC_5	0.732	-0.740	-0.761	0.805	0.915	0.762	0.708
PU_2	0.550	-0.662	-0.589	0.583	0.619	0.826	0.613
PU_3	0.753	-0.780	-0.738	0.756	0.731	0.916	0.719
PU_4	0.751	-0.758	-0.686	0.674	0.709	0.888	0.661
SN_1	0.603	-0.557	-0.558	0.640	0.551	0.589	0.810
SN_3	0.629	-0.555	-0.607	0.649	0.619	0.561	0.832
SN_5	0.760	-0.700	-0.654	0.677	0.677	0.744	0.875

Table 8: Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistics (O/STERR)	P Values
Business -> Attitude	-0.240	-0.236	0.122	1.897	0.029
Operational -> PEOU	-0.425	-0.427	0.094	4.517	0.000
PEOU -> Attitude	0.238	0.250	0.147	1.652	0.049
PEOU -> PU	0.385	0.398	0.083	4.645	0.000
PSC -> PEOU	0.471	0.475	0.098	4.828	0.000
PSC -> PU	0.470	0.463	0.085	5.521	0.000
PU -> Attitude	0.172	0.149	0.101	1.697	0.045
SN -> Attitude	0.307	0.318	0.140	2.192	0.014

4.2 Results of Hypotheses Tests

Findings provided enough evidence to reject the null hypothesis H0, and accept the alternative hypothesis for the eight structural paths based on the results of the schemes below. For each path, a structural formula was provided, by which the extent of influence that affects each construct was demonstrated.

4.3 Model Evaluation

R-Squared: The extent of variance has accounted for each of those constructs by their respective independent variables; this is captured by the R-squared measure, as values above 60 percent were deemed appropriate for structural fit. Regarding the Attitude, the degree of determination, its variance was explained by all the endogenous latent constructs, is 76.5 percent when P = (0.000). As for PEOU when being explained by Operational and PSC, its degree of determination was 73.2 percent (P=0.000), and therefore desirable as well. Finally, the PU when explained by PEOU and PSC, the degree of fit was 66.5 percent when P = (0.000) which is deemed acceptable.

Goodness-of-Fit: Although the quality of each structural formula was measured by a simple evaluation of the classical R² fit index, still it was not sufficient to evaluate the whole structural model. Specifically, since the structural formulas are estimated once the convergence has been assured, then the R² values only would take into account the fit of each regression in the structural model. Overall, R² of the Attitude (0.784) in “R Square” (Table 9), indicates that the research model explains more than 75 percent of the variance in the endogenous variables and PEOU explains about 74 percent (0.743) and PU explains 68 percent (0.681). The calculated global goodness-of-fit (GoF) as per the formula given by Vinzi, et al. (2010) is (0.72), which exceeded the threshold suggested by Wetzels, et al. (2009). Thus, this study concludes that the research model has a good overall fit.

Aswad

Table 9: R-Squared

	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistics (O/STERR)	P Values
Attitude	0.765	0.784	0.039	19.411	0.000
PEOU	0.732	0.743	0.052	14.189	0.000
PU	0.665	0.681	0.081	8.164	0.000

5. Conclusions, Limitations and Recommendations

The below formulae were produced from the model results, as they were thought to assist in drawing the outlines of the current way of thinking by which company managers developed their perspectives about social media in the Arch/Eng. business in Dubai:

- 1- Attitude = - 0.236 (Business Risks) + 0.25 (PEOU) + 0.149 (PU) + 0.318 (SN) + err
- 2- PU = 0.463 (PSC) + 0.398 (PEOU) + err
- 3- PEOU = - 0.427 (Operational Risks) + 0.475 (PSC) + err

Attitude: The first formula explained that attitude towards social media was directly influenced by the positive value of Perceived Subjective Norm – SN (path coefficient = 0.318) and the negative influence of Perceived Business Risks (path coefficient = - 0.236). Both constructs had a common priority which is the audience’s perspective of the firm, although the constructs had different signs. In a different scene, the indirect influence of Perceived Operational Risk and Perceived Social Capitals contributed to supporting the original TAM concepts of Perceived Usefulness and Perceived Ease of Use. The surprise in the first formula came from the weight of Perceived Subjective Norm (0.318), as it was the biggest among the other influencing constructs. This can be attributed to the importance of a firm’s audience and clients in the decision-making strategies. This is not bad, although it can confine the firm to limited options. This was explained in the question results section. Subjective Norm question items of SN_ (1, 3, and 5) provided a detailed image of how Arch/Eng. firms cared about and respected their audience’s expectations and judgments. This conclusion is consistent with the findings of Kapferer (2012, pp. 135-136) and Copulsky (2011, pp. 14-16), as they suggested that it is no longer the consumers who build a brand, but communities.

Perceived Usefulness – PU: Perceived Usefulness, as shown in the second formula, was mainly generated from perceived benefits (Perceived Social Capital) and Perceived Ease of Use. The later was balanced by a comparable influence of Perceived Operational Risks, negative, and Perceived Social Capital, positive. See Formulae 2 and 3.

According to the first formula, PU was the least influential on the attitude of firm’s managers, despite the contribution of perceived benefits (Perceived Social Capital). On the other hand, the concept of Ease of Use provided a positive influence on Attitude despite the negative influence of Perceived Operational Risks. This reflects the logical mentality and the ability of a firm’s managers to prioritize the elements of influence, despite being risk averse by nature. While according to the second formula, PU is developed from the mixed perceptions of benefits of the social capital and the ease of handling the new technology. Perceiving social media as an easy

Aswad

tool to handle - PEOU weighed almost the same as the expected benefits – PSC. Its usefulness, as perceived by managers, required the ability to deal with social media in order to harness the perceived benefits. Firms acknowledged that they have to be prepared in terms of the availability of workforce and acquiring technical capabilities by which firms would consider social media easy to use. Assigning specialists, awareness training, and having a policy, would be steps towards a preparation of the workforce to engage with social media. (Brown, 2016)

The concept of delegation is not too far from what is being argued here, as old-fashioned managers do not really agree with such a level of authorization. Such conclusions were consistent with findings of Walter and Berkley (2012, pp. 114-126), Stewart and Coleman (2013), and Scott and Jacka (2011, pp. 66-76).

Policy for using social media, therefore, should be developed in such a way that legal, ethical, and other types of risk can be mitigated, as well as controlling the online content in a way that maintains a firm's reputation in terms of quality and decency. Internal stakeholders should be identified, addressed and eventually become responsible for implementing such policy and mentoring their colleagues. These conclusions are consistent with what were called key success factors by Ashkenas and Newman (2012).

Managers showed a desire to expand their professional networks for the purpose of reaching more clients and jobs, (PU_2, PU_3, and PU_4). This is consistent with the findings of Brown (2012, p. 193) about the ability of social media to facilitate teaming and alliances between firms to obtain bigger jobs and clients. Such technique was known and used in this industry even before social media.

Perceived Ease of Use – PEOU: Perceived Operational Risks and Perceived Social Capital - PSC comprised the perceptions of considering social media and made it easy to be used, according to the third formula. The equal values of the contribution to the PEOU, reflects the balance of manager's thoughts toward the risks and benefits of social media. Both perceptions reflected the extent of awareness of those managers, whether they realize the benefits and threats in detail, or find out what should be done to make things work. That was explained in analyzing question item PR_PER_3 in the question results section, as managers lacked the tools and knowledge that would enable them to judge the performance and evaluate the success of such engagement. This finding is consistent with Haven (2007). Participants couldn't advise about the preparedness of their staff and the cost and time required before such preparation can be raised to a sufficient level, at which the engagement with the audience can be handled. This conclusion is consistent with Walter and Berkley (2012, p. 100), Shullich (2011) and Evans (2010, pp. 130-132). The latter emphasized the necessity of combined skills in which staff should be trained.

Managers' education is important as well as their subordinates, as they are going to supervise and mentor. Managers need to learn how to influence their firm's culture in order to shape the behavior of staff. They need to learn to spread their brand values internally, so that the delegated staff are able to communicate externally to the audience and represent the firm (Brown, 2012, p. 124; Cardon & Marshall, 2015).

Aswad

Perceived Business Risks: Those had a remarkable role in influencing Attitude. This confirmed the fact that Arch/Eng. firms cared a great deal about their reputation and brand image. This should become a motive to reflect the firm's technical capacity, and the ability to protect client privacy and data confidentiality. This finding is consistent with Walter and Berkley (2012).

Posting in social media should consider quality, authenticity and frequency. Those conclusions are consistent with the principals of content management over social media platforms, as advocated by Brown and Fiorella (2013, pp. 39-41) and Clay and Newlands (2014, p. 61) with the focus on blogs as they are the main online posts. Tang, et al. (2012) and Chauhan and Pillai (2013), emphasized the direct impact on a firm's reputation, and continuity of engagement on attitude development.

Perceived Operational Risks: Managers are resource-oriented, and unless a tangible or measureable solution becomes available to them, they would consider using social media at work as a waste of resources. Benchmarks such as "likes and subscriptions" do not make a direct difference, in this industry at least. This was explained by managers in PR_TIM, as they found that the time wasted on social media is unrecoverable.

Financial implications are the other side of resource management, as potential training and consultations would need to be evaluated and benchmarked as to whether the current personal level of knowledge is sufficient for employees to start, or they need to be educated more about security and audience communication skills, and whether the current hardware and software is appropriate for the new task or not. The same applies to performance concerns, such as meeting the audience's expectations and achieving acceptable returns, in terms of response and interaction of audience. Managers themselves do not know the extent of response that their subordinates should achieve. For Arch/Eng. managers, the most concerning issue about social media, is the lack of measurability, from which uncertainties rise, particularly when they know that social media is a continuous activity; once it started, it will not stop. Maintaining and updating online content is a tremendous work as well as keeping up with the endless conversations.

Managers need to administer different social media accounts as a single platform with different tasks. Dashboard applications can facilitate this. Posting, receiving posts, scheduling ads and updating contents can all be managed together from a single window by the least number of personnel possible. This would also contribute to understand the statistical information.

Perceived Subjective Norm – SN: Firm's audience usually comprise old and potential clients as well as followers who admired and learned from the firm's works. Some audience follow firms because of specifically talented personnel within the staff. Firm's managers showed great consideration to their audience's opinions, not only regarding design style or a project, but in a managerial decisions such as adding a new communication method to the business.

Perceived Social Capital – PSC: Managers of Arch/Eng. firms in Dubai proved their eagerness to reach a bigger audience and maintain their connectivity with the current networks. They expected new features of social media to contribute and amplify the methods by which new and bigger networks become reachable. The balance that was shown in the model's Formulae two and three between PSC and PEOU, as well as between PSC and Operational Risks, reflects the extent of belief that social media would assist managers to capitalize on the social mass. With the speed

Aswad

and viral spread of social media, new networks can be reached or established, and existing ones expanded. Managers wanted to implement social media but they lack sufficient knowledge that enable them to overcome their concerns. According to the industry experts, such shortage of knowledge was on the commercial not personal level.

5.1 Key Success Factors

In summary, it was found in this study that managers of Arch/Eng. firms in Dubai need to learn about the following aspects in order to overcome their negative perceptions, especially those that are related to reputation and resource management.

- Governing the practice with policies.
- Training for staff and management with technical, security and marketing skills.
- Content management, as this is what is going to be communicated to the public.
- Managing audience, clients and communities, as they are the target of any marketing process.

5.2 Limitations and Recommendations for Future Researchers

Several steps were not undertaken due to scope and time limitations, although they were identified during the research. Future researchers are recommended to consider the following points:

To add a seventh risk facet which is the legal facet, as such implication can become influential. The same was argued in the literature review section, particularly within Amanda Walter's findings. This research proved that a direct influence can be generated on attitude by influencing brand image and reputation. Thus, it is recommended to be within the Business Risks construct. The new facet of risk should include but not be limited to; copyright issues, leakage of confidential information, the bad behavior of an upset employee, and so on.

The population size was small, studying the Arch/Eng. business can be conducted country-wide, if appropriate commonalities were found among markets of Dubai and the other states of the UAE. States such as Sharjah and Ajman have similar classification and classification-related regulations to those in Dubai, though, many firms in those states had branches in Dubai as well. It is worth mentioning that such separation (between states) can be less influential in other sectors within the construction industry such as material suppliers, as the supply chain of this sector is trans-provincial. Materials can be imported via harbors, or manufactured in a state to be moved to local stores or distributors in another state.

Stratification was not implemented as the current floor-based classification was deemed not showing the actual market share in Dubai. Workforce size can become a basis for stratification, however, if the size of involvement is revealed and more commonalities were considered among markets of Dubai and the other states. Stratification based on the size of workforce should provide more a detailed view, as managers are resource-oriented. The availability of the workforce, in terms of quantity and quality, can influence the perceived operational risks in terms of time, cost and performance. A direct implication of such decision demands a bigger workforce,

Aswad

which would involve time, cost, and performance in the research process. The same was sensed in this research, as all firms that considered social media a waste of work time, had more than 100 employees. It was attributed to the availability of employees who can be dedicated to communicate via social media, or can afford to have a separate marketing department. No linear relationship was found between the size of firms and their level of agreement to consider social media a waste of time (PR_TIM_1), as the Pearson (r) test scored (0.023). However, future researchers are advised to pursue this relationship in different contexts, such as business environments, industries, or different sizes of populations.

Social media platforms were not separated in this research, details about risks and benefits might need to be investigated for each platform independently. Neil Brown (2012), for instance, separated LinkedIn from the other platforms to study generated leads. The same applies for investigating new platforms such as Pinterest and Tumblr, especially after becoming text interchangeable.

References

- Ajzen, I 1985, 'From intentions to actions: a theory of planned behavior, in J. Kuhl & Beckmann', (ed.) *Action-Control: From Cognition to Behavior*, Heidelberg, Springer, pp. 11-39.
- Arafi, A 2009, *Information systems adoption: a study of the technology acceptance model*, Saarbrücken, VDM Verlag Dr. Muller Akteingesellschaft & Co. KG.
- Arora, P & Predmore, CE 2013, 'Social media as a strategic tool: going beyond the obvious', in MR Olivas-Lujan & T Bondarouk, (ed.) *Social Media in Strategic Management: Advanced Series in Management*. Bingley, UK, Emerald Group Publishing Limited, pp. 115-127.
- Ashkenas, R & Newman, H 2012, *Make a good impression in 30 seconds*, viewed 21 1 2014, <<http://blogs.hbr.org/2012/02/make-a-good-impression-in-30-s/>>.
- Aula, P 2010, Social media, reputation risk and ambient publicity management. *Strategy & Leadership*, Vol. 38, no. 6, pp. 43-49.
- Azaroff, W 2007, *The importance of community management in social media projects*, viewed 19 1 2014, <http://www.netbanker.com/2007/08/importance_of_community_management_in_social_media_projects.html>.
- Bondarouk, T, Ruel, H, Axinia, E & Arama, R 2013, 'What is the future of employer branding through social media? results of the delphi study into the perceptions of HR professionals and academics', in T Bondarouk & MR Olivas-Lujan, (ed.) *Social Media in Human Resources Management*. Bingley, UK, Emerald Group Publishing Limited, pp. 23-57.
- Brown, D 2016, 'Social media policies for employers and employees: regulatory and statutory considerations', *Journal of Nursing Regulation*, Vol. 6, no. 4, pp. 45-50.
- Brown, NM 2012, *Tools of the trade: modern marketing for construction brands*, 3rd ed. Aurora(IL): RB Communications Inc..
- Brown, D. & Fiorella, S. 2013, *Influence marketing: how to create, manage, and measure brand influencers in social media marketing*, Indianapolis, Indiana, QUE
- Campbell, D & Fiske, D 1959, 'Convergent and discriminant validity by the multitrait-multimethod matrix', *Psychological Bulletin*, Vol. 56, no. March, pp. 81-105.
- Cardon, P & Marshall, B 2015, 'The hype and reality of social media use for work collaboration and team communication', *International Journal of Business Communication*, Vol. 52, no. 3, pp. 273–293.

Aswad

- Castriotta, M, Floredu, PB, Di Guardo, MC & Cabiddu, F 2013, 'Disentangling the strategic use of social media in the insurance industry: a value co-creation perspective', in MR Olivas-Lujan & T Bondarouk, (ed.) *Social Media in Strategic Management: Advanced Series in Management*, Bingley, UK, Emerald Group Publishing Limited, pp. 63-86.
- Chauhan, K & Pillai, A 2013, 'Role of content strategy in social media brand communities: a case of higher education institutes in India', *Journal of Product & Brand Management*, Vol. 22, no. 1, pp. 40-51.
- Choi, G & Chung, H 2013, 'Applying the technology acceptance model to social networking sites (SNS): impact of subjective norm and social capital on the acceptance of SNS', *Journal of Human-Computer Interaction*, Vol. 29, no. 10, pp. 619-628.
- Clay, B & Newlands, M 2014, *Content marketing strategies for professionals*, South Carolina, Bruce Clay and Murray Newlands.
- Crespo, H & De los Salmenes, MG 2009, 'The influence of perceived risk on internet shopping behavior: a multidimensional perspective', *Journal of Risk Research*, Vol. 12, no. 2, pp. 259-277.
- Copulsky, JR 2011, *Brand Resilience: Managing Risk and Recovery in a High-Speed World*, 1st ed. New York, USA, Palgrave Macmillan.
- Davis, FD 1989, 'Perceived usefulness, perceived ease of use and user acceptance of information technology', *MIS Quarterly*, Vol. 13, no. 3, pp. 319-339.
- Dong-Hun, L 2010, 'Growing popularity of social media and business strategy', *Samsung Economic Research Institute- SERI Quarterly*, Vol. 3, no. 4, pp. 112-117.
- Dubai_Municipality 2014, *Consultant Engineering Offices*, viewed 2 2 2014, <https://login.dm.gov.ae/wps/portal/DepartmentHomePageEn?WCM_GLOBAL_CONTEXT=/wps/wcm/connect/DMContentEn/Home/Common/contractingcompaniesengineeringofficesd ata>.
- Ducey, A 2013, *Predicting Tablet Computer Use: An Extended Technology Acceptance Model*, Florida, University of South Florida.
- Evans, L 2010, *Social media: strategies for engaging in facebook, Twitter & other social media*, Indianapolis, Indiana, Que Publishing.
- Fanion, R 2011, 'Social media brings benefits to top companies', *Central Penn Business Journal*, Vol. 27, no. 33, pp. 76-77.
- Field, J & Chelliah, J 2012, 'Social-media misuse a ticking time-bomb for employers', *Human Resource Management International Digest*, Vol. 20, no. 7, pp. 36-38.
- Fishbein & Ajzen 1975, *Belief, attitude, intention, and behavior: an introduction to theory and research*, MA, Addison-Wesley.
- Gruner, RL, Power, D & Bergey, PK 2013, 'Leveraging social media technology for business transformation: the case of corporate social communities', in MR Olivas-Lujan & T Bondarouk, (ed.) *Social Media in Strategic Management: Advanced Series in Management*. Bingley, UK, Emerald Group Publishing Limited, pp. 27-42.
- Hatcher, L 1994, *A step-by-step approach to using the sas system for factor analysis and structural equation modeling*, Cary, NC, SAS Institute.
- Haven, B 2007, *Marketing's new key metric: engagement*, Cambridge, MA, Forrester Research Inc.
- Henry, R & Bosman, L 2013, 'Strategic management and social media: an empirical analysis of electronic social capital and online fundraising', in MR Olivas-Lujan & T Bondarouk, (ed.) *Social Media in Strategic Management*, Bingley, UK, Emerald Group Publishing Limited, pp. 43-62.

Aswad

- Hoe, SL 2008, 'Issues and procedures in adopting structural equation modeling technique', *Journal of Applied Quantitative Methods*, Vol. 3, no. 1, pp. 76-83.
- Hu, T Poston, RS & Kettinger, WJ 2011, 'Nonadopters of online social network services: is it easy to have fun yet?', *Communications of the Association of Information Systems*, Vol. 29, no. 25, pp. 441-458.
- Koren, D 2005, *Architects's Essentials of Marketing*, Hoboken, New Jersey, John Wiley & Sons, Inc..
- Lin, CSH & Sher 2007, 'Integrating technology readiness into technology acceptance: the TRAM model', *Psychology & Marketing*, Vol. 24, no. 7, pp. 641-657.
- Mathur, P, Black, J, Cao, J, Berger, P & Weinberg, B 2012, 'The impact of social media usage on consumer buying behavior', *Advances In Management*, Vol. 5, no. 1, pp. 14-22.
- McHale, R & Garulay, E 2012, *Navigating social media legal risks: safeguarding your business*. 1st ed. Indianapolis, Indiana, USA, Pearson Education Inc..
- McTiernan, L 2012, *How to use Social Media to Co-create Brand Success*, viewed 4 5 2013, <http://www.ipsos-mori.com/DownloadPublication/1458_asi-social-media-february-2012.pdf>.
- Mintzberg, H 1973, *The nature of managerial work*, New York, Harper & Row.
- Nair, I & Das, VM 2012, 'Using technology acceptance model to assess teachers' attitude towards use of technology as teaching tool : a SEM approach', *International Journal of Computer Applications*, Vol. 42, no. 2, pp. 0975-8887.
- New_Media_Age 2010, *A consultancy*, viewed 30 8 2014, <<https://econsultancy.com/nma-archive/38406-social-media-relationships-take-serious-commitment/>>.
- O'Flynn, A 2012, *Using social media to increase sales and brand awareness*, viewed 30 8 2014, <<http://ezinearticles.com/?Using-Social-Media-to-Increase-Sales-and-Brand-Awareness&id=4110467>>.
- Parasuraman, A & Colby, CL 2001, *Techno-ready marketing: how and why your customers adopt technology*, Hardcover ed. New York, The Free Press.
- Phippen, A & Ashby, S 2013, 'Digital behaviors and poeple risk: challenges for risk management', in MR Olivas-Lujan & T Bondarouk, (ed.) *Social Media in Strategic Management: Advanced Series in Management*, Bingley, UK, Emerald Group Publishing Limited, pp. 1-26.
- Reputaion_Council 2013, *Latest findings from the eighth sitting of the reputation council*, viewed 11 2 2014, <<https://www.ipsos-mori.com/researchpublications/publications/1621/Reputation-Council-November-2013.aspx>>.
- Ross, L 2010, 'Reputation Warfare', *Harvard Business Review*, Vol. 88, no. 12, pp. 70-76.
- Sedej, T & Justinek, G 2013, 'Social media in internal communications: a view from senior management', in T Bondarouk & MR Olivas-Lujan, (ed.) *Social Media in Human Resource Management*, Bingley, UK, Emerald Group Publishing Limited, pp. 83-95.
- Shaughnessy, F 2013, '4 excuses preventing A/E/C firms from embracing social media', *The Journal of the Society for Marketing Professional Services*, Vol. 23, no. 4, pp. 38-39.
- Tsimonis, G & Dimitriadis, S 2014, 'Brand strategies in social media', *Marketing Intelligence & Planning*, Vol. 32, no. 3, pp. 228-244.
- Tzou, RC & Lu, HP. 2009, 'Exploring the emotional, aesthetic, and ergonomic facets of innovative product on fashion technology acceptance model', *Behaviour & Information Technology*, Vol. 28, no. 4, pp. 311-322.

Aswad

- Venkatesh, V & Davis, FD 2000, 'A theoretical extension of the technology acceptance model: four longitudinal field studies', *Management Science*, Vol. 46, no. 2, pp. 186-204.
- Venkatesh, V, Morris, MG, Gordon, BD & Davis, FD 2003, 'User acceptance of information technology: toward a unified view', *MIS Quarterly*, Vol. 27, no. 2, pp. 425-478.
- Walter, A & Berkley, H 2012, *Social media in action: comprehensive guide for architects, engineers, planning and environmental consulting firms*, San Diego, CA, Watermelon Books.