EXTENDING UTAUT TO EXPLAIN SOCIAL MEDIA ADOPTION BY MICROBUSINESSES

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ABSTRACT

This paper extends the use of the Unified Theory of Acceptance and Use of Technology (UTAUT) to explain social media adoption by microbusinesses. A canonical action research method is used to study social media adoption in microbusiness, and a post positivist approach is used to report the results based on a predetermined premise. It is found that the major constructs of performance and effort expectancy played an insignificant role, and social influence and facilitating conditions did not influence the behavioral and adoption intentions of social media by microbusiness owners. Owner characteristics and codification effort dominated the use behavior. The goal of microbusiness owners in gaining additional customers leads to behavioral modification resulting in replacing of behavioral intention with goals as a superior method of predicting adoption behavior within the context of microbusinesses.

KEYWORDS

UTAUT, social media, action research, microbusiness

1. INTRODUCTION

Social media is adopted by businesses primarily to talk with the customer. Social media applications are simple, generally free, are web based, and depend on content generated by the user. Social media supports parallel multiple communication channels of business to consumer, consumer to consumer, and networks of forums or groups. These network groups specialize in subjects or share common interests, and therefore have substantial influence on buying decisions of a buyer[1]. Businesses participate in these communication channels to gather the perceptions of customers about current products and services, and get ideas about new product and service development. Another use is dissemination of information along with advertising and promotion , which can be broadcast by the business to a select target group of users who have opted to receive this information [2] & [3]. The micro broadcasting capability to a select group has been used recently in various campaigns prominently the Egypt revolution [4]. The people were able to self-organize and keep up the tempo by publishing photos of the struggle and gather world support leading to the ultimate over throwing of the government.

This micro publishing feature has revolutionized some of the small businesses that have adopted social media, in that they have been able to circumvent large and expensive media to bring awareness of their products to the market, and sell their products and services. Both large and small businesses are adopting Twitter and Facebook with varying levels of success [5]. The primary question that arises is how can microbusinesses take advantage of the micro publishing feature of the social media for their businesses?

UTAUT is a dominant popular technology adoption theory that explains almost seventy per cent of variance in adoption behavior [6] & [7]. This research seeks to extend its use in the microbusiness context. UTAUT is a theory from the positivist domain and this research hopes to

extend the knowledge using an interpretive strategy. This approach is consistent with [8] who has interpretively examined media richness theory. The remainder of the paper is organized as follows. The literature review identifies the gap in the literature to establish the uniqueness of this investigation. Next, research questions are framed and following a post positivist approach, suitable propositions are developed. The action research method used is described in the methodology section, along with the data analysis process. The results of the investigation are presented in the results section, followed by the discussion section that links the findings back to the literature. Conclusions and limitations are then presented.

2. LITERATURE REVIEW

Scant research has been published on information technology adoption and diffusion in the small business sector [9]. In reference to social media, limited investigation has been performed on its adoption by businesses using UTAUT [10] [11] [12]. This research addresses the gap by providing the knowledge on the predicting capability of UTAUT in social media adoption by microbusinesses. For detailed analysis of UTAUT reader can refer to [6], [13] and [14].The first two are a biblometric analysis and a meta-analysis, and the third is a complete history of UTAUT.

Extension of UTAUT from an organizational context to an individual consumer context is proposed in UTAUT2 where habit, experience, hedonic motivation and price value are added as new constructs [15]. A further extension to UTAUT constructs is achieved by adding the five-factor model of personality[16], which has significant predictive capability, and is positively related to performance expectancy [16]. Microbusiness owners are individuals and their personality may play an important role in adoption of social media. The UTAUT construct of behavioral intention is questioned and behavioral expectation is suggested as an appropriate replacement [17]. The direct relation between behavioral intention and use behavior is criticized favoring a result based construct [18]. It is suggested that "the intention-behavior linkage is probably the most uncritically accepted assumption" (p. 245) turning in favor of a goal oriented model [19].

UTAUT and technology diffusion theory have been used to understand social media adoption (Twitter) in a business environment [10]. New constructs such as codification effort and reputation are identified to influence behavior in adoption of Twitter for inter office communication [10]. Time and privacy are the overriding concern for all the participants [10]. In a study of social media use by IBM employees, it was identified that caring, climbing and campaigning are the biggest motivators of social media use by IBM employees [20]. An online survey on Twitter identified habit as a dominant factor for use of micro blogging in a business communication environment [21]. Social networking in enterprises poses several risks in terms of legal risk, internet resources, security, intellectual property and misuse by employees by wasting time on such networks [22].

The technology adoption literature on small and medium enterprises identifies relative advantage as the main factor in post technology adoption [23]. Information systems compliment the informal communication systems existing internally and externally [24]. Relative advantage, compatibility complexity, and self-efficacy play prominent roles in open source software adoption by small and medium enterprises [25]. Finally, within the microbusiness literature on technology adoption, the technical ability of the owner is identified as the primary requirement in successfully leveraging the technology [26]. The construct technical ability along with personality, habit and experience are grouped together as microbusiness owner characteristics. Literature identifies the scarce resources of microbusinesses as the primary problem blocking the use of networking and sharing to undertake business processes [26]. Time, allocated by the owner for using the technology, is a scarce resource. Time and codification effort are grouped under the UTAUT construct of effort expectancy, and relative advantage is retained in the main construct of performance expectancy.

This research is unique in providing knowledge on the applicability of UTAUT in social media adoption by microbusinesses. Secondly, owner characteristics influencing social media adoption by microbusiness would be a valuable contextual addition to the UTAUT theory. Finally, converting UTAUT to a goal-oriented model would increase the relevance of the overall model from a practitioner perspective.

3. RESEARCH QUESTIONS

The research seeks to address the following question: How is social media adopted by microbusinesses? To address this question UTAUT was used as the theoretical base to understand the adoption process of social media by microbusinesses. It was expected in the design stages of the study that the key construct of performance expectancy would play a prominent role in influencing the behavior of microbusiness owners to make greater use of social media tools. Secondly, due to the simplicity of social media tools, effort expectancy was likely to play a non-significant role leading to immediate use of social media by microbusiness owners. Next, social influence including image may play a pivotal role in use of social media by microbusiness owners because they will enjoy a higher self-esteem in being able to use a new and fashionable technology for marketing. Finally, facilitation and support in the use of the social media technology by an agent of change (the researcher using action research interventions) may be important in the initial stages of adoption. The role of age, gender, and experience of participants was beyond the scope of this investigation, and voluntariness was not included. The reporting style of this paper follows the recommendations by [27].

4. METHOD

A weak constructionist approach was followed with a focus on examining utility of an artifact and limited emphasis on reality. An action research method was employed by facilitating the introduction of a Facebook business page by a microbusiness. The microbusiness selected for this research was a specialty food retail business with both an online and physical outlet, and was operated by two owners and one employee. A single case approach was followed based on the premise that this is an exploratory study used to generate theory as a basis for use in subsequent multiple cases. By using this approach relevant constructs important for social media adoption by microbusinesses were identified for generalization [28]. Training of the owners of the microbusiness was planned through two canonical action research cycles. Action taken to initiate use of the page in these two cycles involved placing a Facebook sign in the retail outlet, emailing existing customers with the page link, "follow us on Facebook", placing an advertisement in print media, and inserting a Facebook link on the website of the business. A third unplanned cycle was required after completion of the first two cycles. The third cycle was the demonstration to the participant of the use of Facebook pages by similar businesses, and gathering their reactions and comments to those examples of successful use. The initial cycles were driven by UTAUT to develop and guide the adoption process. The first cycle was evaluated and the learning gained informed the second cycle. Evaluation and learning from the second cycle suggested that a third cycle was required. Evaluation and learning for all three cycles are reported in the results.

Data collection included participant observation (memos), unstructured interviews during the action research implementation, and a semi-structured interview after implementation and adoption of Facebook business page. The interviews generated 498 minutes of recording over 7 months, which was partially transcribed for analysis. Offline participant observation was done by working in the microbusiness. Thirty two hours of live participant observation was performed at various times of the day spread over 7 months while the researcher worked a typical two hour shift in the organization. The participant observation involved serving and speaking with both customers and staff members. Online participant observation revealed the activity of the microbusiness owner. Eighty-nine posts were recorded as memos for analysis. Context for the study was developed by conducting telephone interviews with two similar microbusinesses that

were already using Facebook business pages. Online participant observation was performed on the two microbusinesses by examining the fifteen hundred posts that they had on their pages. Parallel participant observation was conducted over 7 months during the time of implementation of social media in the microbusiness. Secondary data was obtained from other Facebook business pages and business mentors. This data was collected using social media tools such as Twitter, LinkedIn, Facebook, and Blogs. The researcher posted questions to the LinkedIn groups "Facebook & Twitter for Business" and "Social Commerce: Selling with Social Media" and one to one correspondence was conducted with business mentors who were members of these groups.

Data analysis followed the recommendations from [29] and [27]. Data collection and analysis was performed simultaneously through each stage of diagnosis, action planning, action taking, evaluating and specifying learning. A list of explanatory and inferential codes such as owner characteristics, effort, habit, performance, time, and goals was developed from theory for initial data analysis. These initial codes helped in the early categorization of the data during data collection. Later, data was coded by axial and selective coding to develop core categories. The data collected for triangulation was coded with a focus on motivation to use social media by microbusinesses. Initially this data was open coded in to nineteen categories, which was reduced to 5 categories in later stages. The coding activity was performed using NVivo. After the seven month implementation phase, follow-up interviews and observation of the page was carried out six months later for confirmation of the results.

5. RESULTS

The investigation identified five main constructs, which influenced the capability of the owner to adopt and use the Facebook page. The most dominant construct is the characteristic of the owner, which is crucial for adoption of social media. Second, the effort required for using the tool, in terms of developing engaging content and devoting time to update the page, restricted use of the page. Third, the owners found that the utility of the Facebook page was limited in comparison to email marketing. Fourth, when the owners were given the example of successful Facebook use by other businesses they decided to make effort with the objective of gaining new customers. Finally, the owners did not gain new customers, which lead to reduction in use of the page.

5.1 Characteristic differences of the owners

It was observed that the action research participants used the page differently, in terms of frequency and nature of post, than their counter part similar businesses. Even within the two similar businesses, there were noticeable differences among the nature of posts. The business, which had just online presence had less interesting postings, focused on informing deals and guided the customer to their website. In case of the second business the postings were interesting, had almost no links to the website. The deals were eloquently camouflaged with interesting information, content was highly personalized and extremely relevant for the customer. This business owner mentioned that "regular posting", "experimenting" and "being personal" helped her to engage with the customer. The difference between users behavior is evident from her comment, "it's me I am like that… my other partners avoid using it… I talk with my customers who are in the shop and try to do that over the page…. It just came naturally to me …I got better over time". The technology literate action research participant considered herself shy and less talkative and expected her partner to be active as she suggested, "I want him to do more of it since he is definitely that kind of person". Her partner on the other hand was more confident and aggressive but technology shy leading to limited use of the page. The differences suggest that characteristics of the owner such as being talkative and motivated to use the technology are suitable for Facebook page.

5.2 Effort required to develop suitable content

It was found that while the participants were aware of the potential usefulness of having a Facebook page, they lacked confidence and experience in adopting these technologies. Many technology-literate business people would perceive that Facebook business pages are technically simple to use, but the microbusiness owners in this study struggled to find suitable content with which to engage their customers. Participants felt that it was much easier to use radio and print media channels to reach their customers than building the experience and confidence needed to make effective use of the social media site. This was evident from the less technology informed owner who commented that, "it is easier to set up an ad on the radio by a telephone call! It involves less time and I can access a wide range of local prospective customer". The other participant is of the opinion that "we do not have much to say besides the deals and arrival of new stock which is once in few months". They could not make effective use of the examples of successful use by other businesses and refrained from using the posting strategies by the similar business pages. The participants felt that regular posting on the guidelines of the examples in cycle three "may lead to bombarding their customers with too much information"

5.3 User perception that Email was more useful than having a Facebook page

The action research participants felt that the email system used by them was effective for communicating with their customers. The technology literate owner who operated the website and did the email marketing said, "writing email is simpler to inform the customers about new stock". As this participant understood the process of Facebook newsfeed and edge rank method she pointed out the downside of it by saying that "in email I know for sure that each of my customers have received the communication but a Facebook post does not ensure that!" She continues by saying that "the Facebook post is dependent on the assumption that my customers are active daily on Facebook so they can see my post but that is not the case". The second participant added that "some of my customers are old and do not use Facebook". Discussion with customers during offline participant observation confirmed the opinion of the participants. One of the customers said that "this is nostalgic stuff … deal is not important". Another customer said "I use Facebook for communicating with my family" while another concerned with privacy remarked "I don't want my extended circle to know which shop I am buying my lollies from!" The participants continued use of email as the primary way of communication with their customers.

5.4 Participants undergo behavior change

The participant made renewed effort to use the page when they saw that similar businesses are using it for marketing purposes. The participants displayed a significant behavior change towards use of the page in contrast to the earlier two cycles. In the first two cycles, the use of the page died down when they did not see significant payback in using Facebook in comparison to the effort needed for regular posting to update the page. The negative comments from customers confirmed their belief. After the third cycle, which showed them examples of successful use by other businesses, there was a change in their posting pattern with similarities to the demonstrated examples. The third cycle revealed that seventy-five percent of the posts are related to deals, twenty percent about customer care and 5 percent about social climbing. The action research participants followed this advice and began posting regular deals such as "Friday Specials only on Facebook" an "exclusive Facebook special code" to get certain amount of discount and "short dated" deals. The similar page owner mentioned, "it took me months to get the hang of it" "it is hard to build likes" "deals worked the best for me". The action research participants modified their behavior with the hope of gaining new customers. They tried for four months with deals and engaging post from the examples of successful use by other businesses. This behavioral modification showed the capability of the participants to be flexible despite their initial negative attitude towards the Facebook page.

The behavioral change was limited due to ethics taking precedence over selling activity undertaken through the page. The participants turned down the suggestions received from the business mentors. These suggestions were mostly gullible such as liking your own post to use your extended network, posting the same information at different time of the day and posting on community pages. The participant did not want to like their own post as they felt that "it is a ridiculous suggestion" and "we don't want to come across as so desperate" The microbusiness owners were not influenced by social situation and image played little role over business consideration. They did not try to increase awareness of their products by cross posting on popular local pages and strongly protected the privacy of their customers. They wanted to increase their business share but did not want to undertake any dubious activity.

5.5 Lack of new customers from the page

After completion of the third cycle, the participants did not gain a single customer from the page leading to a reactive use. The page had seventeen comments and questions from customers, to which the participants responded. The review conducted after six months showed that the participants were still using the page albeit with reduced frequency of posting (about two in a month) and coincided the posting with the customary promotional email, which were sent prior to installation of Facebook page. No new customers were gained from the page during this period and reliance on print media along with radio was maintained. In contrast to this, the other two businesses of the examples of the third cycle continued use of the page with great vigor (daily post) indicating that Facebook page was a valuable conduit for them in marketing their products.

6. DISCUSSION

First the main five results of the investigation is discussed to demonstrate its conformance with the existing literature. Second, in the theoretical contribution section, the insights gained from the existing literature and this investigation leads to customization of UTAUT to predict social media adoption by microbusinesses. Finally, the strengths and limitations of this investigation, along with implications for research and practice, are described in the next three subsections.

6.1 Constructs extending UTAUT for microbusiness

Owner characteristic of innovativeness to use the page played the most deterministic role in adoption of social media by microbusiness. This is consistent with the finding of [16] and [15] who have pointed out the role of individual characteristics in individual technology adoption. Owner characteristic is added as a construct to UTAUT giving it the primary importance in place of performance expectancy.

Developing suitable content and allocation of time for using the page is considered as an effort made by the owners to use the tool. The new social media specific constructs are codification effort to develop suitable content and time required to use the tool. Codification effort and time are grouped within the original UTAUT construct effort expectancy. The new constructs reduce the effectiveness of the page since more effort is required to maintain and update the page. This is in agreement with finding of [10] who have highlighted the problem of finding appropriate content.

Email is considered more useful than Facebook which is supported by [23] and [25] who have identified that relative advantage plays important role in use of new technology by small businesses. Similar business owners are using the page successfully while the participants are unable to take advantage of the page. This comparison shows that UTAUT construct performance expectancy has reduced importance in social media adoption scenario. [19] argues that "a person can recognize and even accept that PU or attitudes are favorable criteria for deciding to act, but have no desire to act and even explicitly decide not to act…" (p. 245).

The behavioral intention construct seemed to lose importance in face of desire to achieve their goals determining the later as the main indicator of social media adoption in a microbusiness context. It confirms the findings and suggestions of [19], [17] and [18]. When the owners were presented with examples of successful use by other businesses, they decided to modify their behavior towards using the tool with one of the owners taking the lead. They tried to use the tool by innovatively impersonating the examples with the hope of gaining new customers.

As the participants saw usefulness with customers responding to some of their posts they made a proactive effort to use the tool. This pointed out that microbusiness owners are highly goal oriented, enterprising personnel willing to take the necessary steps to achieve their goals. Since they did not gain any new customers from the Facebook page, they reduced their activity diverting scarce resources to productive avenues. This indicate that continued use of the page depend on goal achievement of the owners. Continued use of a tool is the greatest indicator of successful adoption [17]. Based on the findings, Figure 1 below summarizes the extended UTAUT model of social media adoption by microbusiness.
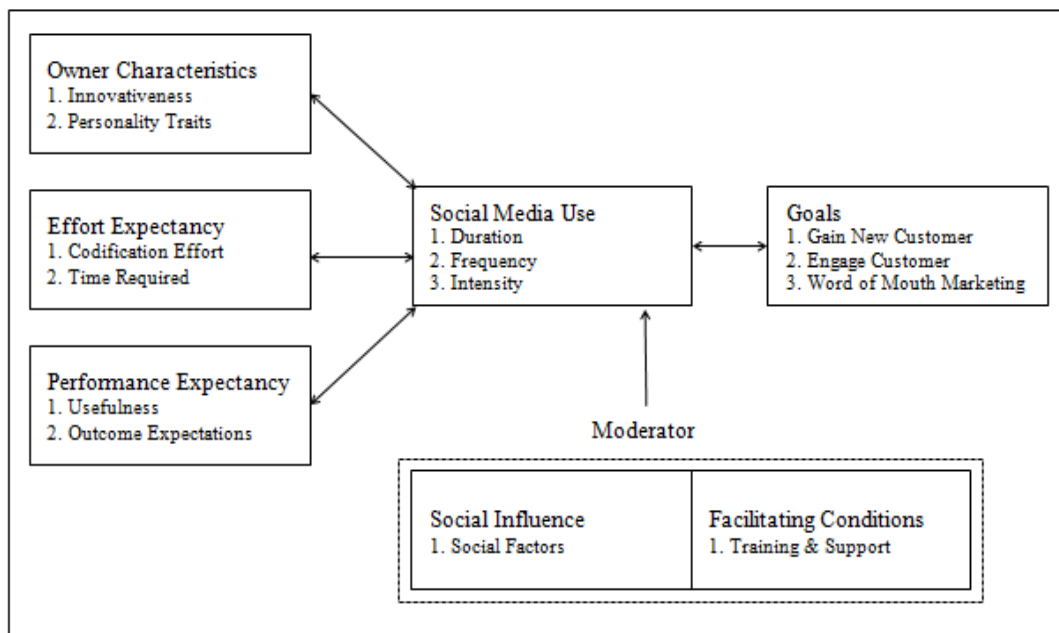

Figure 1 Extended UTAUT Model for social media adoption by microbusiness

6.2 Theoretical contributions

The main theoretical contribution of this research is identifying the importance of owner characteristics in social media adoption by microbusinesses. The construct owner characteristics determine capability of the owner to use the page and therefore play the most dominant role in adoption of social media by microbusinesses. Social media specific constructs codification effort and time required are the second most important adoption indicator. The relative advantage of the social media tool along with its usefulness is the third influencing factor to decide social media adoption by microbusinesses. Finally, microbusiness owners are capable of undergoing modification to their behavior to achieve their goals. The behavior intention or expectation construct is replaced with goals as a major indicator of adoption and continued use of the social media tool.

It is theorized that desire to achieve goals using the social media tool is the most important indicator for continued use of the technology. Figure 1 shows the extended UTAUT model for

social media adoption by microbusinesses. The two-way arrow indicates that social media use evolves over time as the owner develops a comfort zone in using the page. During the initial adoption process, social influence and facilitating condition have a moderating effect in the decision to adopt the tool. On adoption of the tool owner characteristics, effort and performance expectancy will iterate to play a dominant role in deciding the use of the tool. As the owner achieves the goal of gaining new customers it provides encouragement to try out new ideas, spend more time, and understand the usefulness of the tool. The loop continues as the owner discovers new use of the social media tool. If the owners do not gain new customers as it happened in this case, it will lead to a diminished use of the tool. This indicates that goal-oriented model can predict continued use of a technology.

6.3 Implications for research

First, the UTAUT is extended to explain social media adoption in microbusinesses but it is necessary to examine if the extended model can be used to explain adoption of other information systems such as cloud computing or software as services. Second, due to a single case study, the owner characteristics could not be examined in detail. It leaves questions unanswered such as why personality trait is relevant for social media adoption by microbusinesses. Third, owner characteristics may have an impact on effort and performance expectancy. The relation between these constructs will shed further clarity on the adoption of Facebook by microbusinesses. There may be causal relationship between owner characteristics, performance and effort expectancy, which can be explored through an interpretive standpoint. A high effort would require a challenge-oriented person (owner characteristics) to play a pivotal role in deciding extend of social media adoption. In case of performance expectancy owner characteristics play a role since the utility of the tool may be directly related to the owners capability and understanding of the tool. Such a straightforward relationship would be difficult to establish because innovativeness is equally important in social media adoption. Innovativeness is a personal trait, which can be better explored through interpretive investigations. Fourth, goal oriented model need to be used since it has greater capability to predict technology adoption and use by microbusinesses. It is necessary to compare the efficiency of a goal-oriented model against a behavior-based model using a positivist approach. Overall, further investigation is necessary to establish hypothesis for positivist investigation.

6.4 Strengths and limitations

Action research helped the researcher to portray the adoption process at extremely close quarters within the business. Data triangulation from similar businesses made the research extremely relevant for retail microbusinesses. The extensions and modifications made to UTAUT are consistent with past suggestions and modifications.

Since a single case study is used, higher value is accorded on relevance rather than rigor. The theory development is based on a single exploratory case that was necessary due to absence of theory in adoption of social media by microbusiness. The limitation of this study can be overcome by conducting further investigation using the developed theory. No negative evidence was collected to falsify the theory leading to major flaw in the theory development process. However, the limited scope of the investigation did not permit looking for negative evidences. The presence of bias is prevalent in action research. In this case, the author was actively involved with the practitioner over elongated period leading to going native. The author managed the going native aspect by recognizing the dual cycle of action (a) the research cycle and (b) the problem solving cycle. The research cycle is the development of social media adoption theory based on UTAUT. The problem solving cycle is the various tactics, which is used to exemplify utility of the tool so that the owner will use the tool. Bias was managed by distinctly separating the two cycles, which brought about impartial collection and analysis of data.

6.5 Implications for practice

The two main implications are (a) Patience is a virtue and social media experience cannot be done overnight. (b) The microbusiness owner is the best judge about her business. Communication with the customer cannot be outsourced. Practice is required to gain efficacy in social media use. Regular and continuous systematic use will lead to benefits. It is efficient to learn from established Facebook business pages by observing their content. Innovative use of the Facebook business page is necessary to use it as marketing and sales conduit.

7. CONCLUSIONS

This paper makes out a case for extending the UTAUT to accommodate adoption of social media process by microbusinesses. Owner characteristics seem to play the most dominant role for social media adoption. Codification effort and time required can significantly influence adoption of the social media tool. Desire to achieve goals is the most prominent indicator of continued use of the Facebook page. A goal-oriented model will motivate the practitioner community to understand and use the Facebook page.

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