



# The Value of Life Histories in Researching M-Services Adoption and Use

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**ABSTRACT**

Mobile-commerce has the potential to radically improve flexibility and convenience for consumers. Theoretical frameworks used for studying the selection of products and services include innovation theory, theory of planned behaviour and more recently consumer value theory. The latter has been used to determine the values people attach to mobile services. This paper explores further the usefulness of consumer value theory for investigating the adoption and use of m-services at the individual level. In particular, we propose that a life-history research approach will advance research and understanding of m-services adoption and use. The use of life-histories allows a link to be made between the values attached to a service and an individual's characteristics, lifestyle, experiences, work practices and communities of use. This in turn allows the researcher to investigate what actually drives a person's adoption and use of m-services.

**INTRODUCTION**

The aim of this paper is to propose and investigate the value of an alternative framework and methodology to study m-commerce adoption and usage. It will begin by briefly explaining the growth and significance of mobile-commerce. It will then assess the applicability of consumer values theory for researching m-services adoption and use. The paper explains the benefits of using a life-history research approach for understanding the reasons underpinning different consumer value choice perceptions. Consequently the significance of consumer perceived value as an explanatory theory at the individual level will be assessed and the value and contribution that a life-history research methodology can make.

**MOBILE-COMMERCE AND MOBILE SERVICES**

Commerce using an electronic interface is witnessing an unprecedented explosion of mobility, creating the domain of mobile commerce or m-commerce (Clarke, 2001; Ho & Kwok, 2003). It has been observed that e-commerce is positioning itself to take advantage of the growth of mobile devices as an attempt to achieve the targets of adoption originally expected (Anckar, 2002, Anckar & D'Incau, 2002; Clarke, 2001; Ropers, 2001; Lane, 1998). Some academics and practitioners believe that availability of wireless devices will lead to an accelerated growth in e-commerce since technical expertise and hardware costs are lower compared to PC-based e-commerce (Anckar, 2002; Anckar and D'Incau, 2002; Ropers, 2001). Indeed, mobile commerce can be seen as part of a ubiquitous computing revolution that will have significant implications for society (Lane, 1999).

"Mobile devices have been the fastest adopted consumer products of all time; in 2001 more mobile phones were shipped than automobiles and PCs" (Clarke, 2001, pp134). In fact in 2001 out of the 200 million wireless devices sold in the USA, 13.1 million were personal digital assistants (PDA) and the other 187 million were mobile phones (Strauss

et al, 2003). Forecasts estimate that m-commerce worldwide will exceed \$200 billion by 2004 (Levy, 2000; Rockhold, 2000). This represents a great potential for organisations to develop mobile-specific business strategies (Clarke, 2001).

Although data show that individuals are willing to adopt mobile devices there is a lack of theory explaining the reasons for this. In particular there is a lack of knowledge in relation to the importance of the individual's rationale for adoption, and intrinsic influential factors such as the consumers' attitude and values about electronic channels (Eastlick & Lotz, 1999; Amit & Zott, 2001; Han & Han, 2001; Venkatesh & Brown, 2001; Anckar, 2002). Since m-commerce is thought of as the next driver of e-commerce growth it is critical to understand what induces adoption. Although some research has been undertaken in the area "the main reason value-adding elements in m-commerce, the consumers' actual reasons – the primary drivers for adopting m-commerce remain unclear" (Anckar, 2002, p3).

The most common theoretical frameworks used to explain adoption are: Rogers' Diffusion of Innovation theory (2003), Ajzen's Theory of Planned Behaviour (TPB) and The Technology Acceptance Model (Davis et al 1989) which derives from Ajzen & Fishbein's Theory of Reasoned Action (which TPB is based upon) (Summary presented in table 1). One may say that the utilization of TPB to study adoption aims to identify the psychological and social cultural factors that influence

Table 1: A Comparison of Adoption Theories

	Theory Abstract	Strengths	Limitations	Main References	Research Paradigm and Method of validation
<b>Diffusion of Innovation Theory</b>	Concentrates on how consumers learn about an innovation. It draws on the communication channels and on the fact that people from the same social system will depend on media and interpersonal communication differently	It has been the main framework used to study consumers' adoption of innovation over time. Empirically validated	Focus primarily on the communication issues and product life cycle. Does not proactively help to understand option behaviour	Rogers (1963) Bass (1969) Rogers (2003)	Positivist Quantitative
<b>Theory of Reasoning Action</b>	TRA states that Intention to adopt is affected directly by attitudinal components (beliefs about the outcome of the behaviour and beliefs of the consequences of the behaviour), and the subjective norm component (level of importance or desire to please significant others and/or society).	Cognitive model  Work at the individual and organisation level	Studies the attitude towards adoption behaviour  Limitation in dealing with behaviours which people don't have or don't perceive to have complete control	Fishbein & Ajzen, (1975)  Ajzen & Fishbein, (1980)	Positivist Quantitative
<b>Theory of Planned Behaviour</b>	TPB is an extension of TRA. It adds a third dimension The Perceived behaviour control component that looks at uncontrolled external circumstances.	Gives an understanding of the adoption process from the cognitive behaviour perspective	Studies the attitude towards adoption behaviour not attitude towards the product	Ajzen, (1991)	Positivist Quantitative
<b>Technology Adoption Model</b>	TAM can be described as an adaptation of TRA customised to technology acceptance. The intention to adopt is affected by two beliefs: Perceived usefulness and the perceived ease of use of the new technology.	Model customised for the study of user acceptance of information systems/technology.	Same as TRA  Draw upon studying attitude toward behaviour not attitude toward the product	Davis, (1989)  Davis et al., (1989)	Positivist Quantitative
<b>Theory of Consumption Values</b>	The choices consumers make are based on their perceived values in relation "market choice" and that the perceived values contribute distinctively to specific choices.	Studies attitude toward the product/service/technology  Business proactive identify adoption drivers Marketers can develop /promote products accordingly to its perceived consumption values  The 5 values provide a simple and broad framework	Haven't been used towards technology adoption  Don't address influential factors that affect purchase decision involving 2 or more individuals e.g. couples or organizations	Sheth et al., (1991a; 1991b)	Positivist Quantitative

an individual adoption. Therefore, TPB studies the behaviour toward adoption. However when applied to the study of the adoption behaviour, TPB tend to focus on intention to behave instead of actual behaviour.

This paper suggests an alternative framework to understand adoption and use of m-services through Sheth, Newman and Gross's (1991) theory of consumption value. This model unique perspective on consumption values and market choice behaviour can provide valuable insight to better understand m-commerce adoption drivers.

### THEORY OF CONSUMPTION VALUES

Sheth, Newman and Gross (1991a, 1991b) conceptualized a model to help comprehend how consumers make decisions in the marketplace. They based their model on the principle that the choices consumers make are based on their perceived values in relation to what the authors called "market choice behaviour" (see fig below), and that the perceived value contributes distinctively to specific choices. Because their model examines what (product) value attracts consumers; it can be viewed as a way to understand the attitude towards the product, making this a proactive way to understand to m-commerce adoption.

Sheth et al., (1991a; 1991b) classify five categories of perceived value. Functional values are associated with the utility level of the product (or service) compared to its alternatives. Social values could be compared with the subjective norm dimension in the Theory of Planned Behaviour, as it is associated with willingness to please and social acceptance. Emotional values are those choices made based upon feelings and aesthetics. A common example would be choice of sporting products. Epistemic values can be used to describe the early adopters in the sense that it relates to the novelty or knowledge searching behaviour. Words such as "cool" and "hot" are often associated with this value. Finally, the conditional value refers to a set of circumstances depending on the situation (e.g. Christmas, wedding etc.). Socio-economical and physical aspects are included in this value. These five values were conceptualised based on a diversity of disciplines including social psychology, clinical psychology, sociology, economics and experimental psychology (Sheth et al 1991a).

Although this theory has not been used to explain adoption, its unique conceptualization of product values provides a multidisciplinary approach that would contribute towards the understanding of the attitude (adoption) toward the product. The limitation of this theory to understanding adoption is that it cannot be used to understand organisational adoption, as it does not address influential factors that affect purchase couples or group adoption. Another limitation is that this model cannot be used to understand adoption in cases where the buyer is not the user. Nevertheless, Sheth's model, (1991) "provides the best foundation for extending value construct as it was validated through an intensive investigation in a variety of fields in which value has been discussed" (Sweeney & Soutar, 2001 p205).

The application of Sheth's model would help to provide an understanding of the intrinsic influential factors, i.e. values about electronic channels such as m-commerce (Eastlick & Lotz, 1999; Amit & Zott, 2001; Han & Han, 2001; Venkatesh & Brown, 2001; Ankar, 2002). The Theory of Consumption Values can identify the main value-adding elements in m-commerce or the primary drivers for adopting m-commerce. However, in this area as there is strong evidence that the constructs are both reliable and valid. Consequently it would be appropriate to begin another iteration of the research cycle to examine the underlying reasons for adoption by investigating the "how & why" questions using a qualitative approach.

### THE PLACE OF LIFE-HISTORIES IN THE INTERPRETIVE RESEARCH PARADIGM

Several scholars and practitioners have agreed that to answer research questions such as "why" and "how an interpretive strategy of inquiry would be more effective (Walsham, 1995; Myers 1999; Klein & Myers, 1999). Many IS researchers have directed their study towards the social issues related to technology and they have been focusing on human interpretation and meaning (Walsham, 1995).

The interpretive paradigm claims that reality is subjective and is constructed by people's perception (Burrell & Morgan, 1979). However,

this flexibility in the interpretive view cannot be mistaken for a lack of standards or rigour of this methodology (Walsham, 1995; Klein & Myers, 1999; Denzin & Lincoln, 2000; Creswell, 2003).

As this research method proposed aims to identify the "why" or underlying reasons for mobile commerce adoption and use, one can argue that an interpretive approach would be the most effective way to identify the major constructs at the individual level and to explain why certain communities of use recognise particular values in their m-commerce services of choice. Interpretive approaches are seen as appropriate for answering questions such as "why" and "how" (Walsham, 1995; Myers 1999; Klein & Myers, 1999).

The strategy of inquiry proposed in this paper is the life history approach. Although this approach has been explained either as belonging to the biographical approach (Creswell, 2002) or as ethnographical (Walsham 1995; Klein and Myers 1999; Myers 1999), Denzin and Lincoln (2000) have presented life history as an independent strategy of inquiry, instead of a sub-set of another interpretive strategy of inquiry.

The life history research approach can be defined as "any retrospective account by the individual of his life in whole or part, in written or oral form that has been elicited or prompted by another person" (Watson and Watson-Franke, 1985 p2). However, the life history approach has different definitions depending on the perspective a researcher chooses (Tierney 2000). The different definitions of life history do not necessarily disagree or contradict each other but as Tierney (2000, p 539) said: "they speak past each other". The aspect that all authors seem to agree upon is that life history is related to biography, as it is a retrospective report involving a narrative statement and it falls within the interpretive paradigm (Walsham 1995; Klein and Myers 1999; Myers 1999).

The life history approach has been recently used by Kunda, Barley and Evans (2002). Their study seeks to understand the underlying reasons for high skilled technical workers to work as contractors (contingent work force). For their study, the authors have interviewed 52 information technology contractors focusing on their career history, personal & family life, business practices and perception of contract work. The study demonstrates firstly that the existing views of contingent work (contractors) are oversimplified; secondly it identifies an overlooked area (occupational communities and communities of practice) and thirdly discusses the structure of the contingent labor market.

The life history approach helps to understand the relevance and impact of life-events on an individual's behaviour. The utilisation of life events to provide understanding of human behaviour has been widely used in sociology and psychology studies (Brown, 2002). According to some researchers (see Brown 2002, Jackson & Finney 2002) life-events not only shape behaviour, but also explain the way the event is handled and this may result in different future behaviour of the individual. It is possible to hypothesise that certain life events are common to the individuals belonging to the same community of use (i.e. people who have had similar life experiences /events, may have similar value perceptions). The use of life-histories allows a link to be made between the values attached to a service and an individual's characteristics, lifestyle, experiences, work practices and communities of use. This in turn will allow the investigation of what actually drives a person's adoption and use of m-services. For this purpose interviewees will be questioned upon their background (social, economical, cultural); family/personal life and personality issues.

### CONCLUSION

There are great expectations in relation to the adoption of m-commerce. This paper has discussed the utilisation of theory of consumption value (Sheth et. al. 1991) as an alternative framework to understand m-commerce adoption and use. The value theory provides a deeper explanatory ability because it examines the underlying rationale in the decision making process. This can more easily be used for predictive purposes. For example, a main driver for teenagers using mobile phones is the relatively low cost for text messaging, however the motivator for use is the intrinsic social aspect of the service which caters and builds upon an existing community of use.

Product and service developers need to examine these deeper factors to come to a sophisticated understanding of their adoption related decisions. Previous theoretical explanations for technology adoption are low in terms of predictive capabilities. This paper suggests that the consumer perceived values approach has significant potential not only in explaining adoption decisions on an individual level but also across communities of use or practice. These communities exist in the business world as well as society in general.

This paper has also suggested the utilisation of an interpretive life history approach as a tool to understand the underlying reasons for adoption of m-commerce at the individual level. The use of life-histories allows a link to be made between the values attached to a service and an individual's characteristics, lifestyle, experiences, work practices and communities of use. This in turn allows the researcher to investigate what actually drives a person's adoption and use of m-services.

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