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Abstract

This research paper reports the results of a study of M-commerce services adoption in Germany. A quota sample of two hundred respondents was taken in Berlin using a face-to-face questionnaire. Data regarding the use or intention to use M-commerce services, factors that influenced or might influence their adoption of the services, as well as demographic characteristics were collected.

The data is analyzed using the Technology Acceptance Model (TAM) and Structural Equation Modelling (SEM). Further theoretical development is conducted using the broad approach taken by Venkatesh et al. (2003) in the development of the Unified Theory of Acceptance and Use of Technology (UTAUT): a focus on constructs that can readily be measured.

The result is the Simplified Theory of Technology Acceptance (STAT). This model is unique in that it is parsimonious and yet achieves a high degree of predictive power. The model also includes a new construct called *Readiness to Use*. This construct was suggested by the SEM analysis and is found to be a useful addition to conceptualization and modelling of the adoption of new information technologies in a consumer context.

Introduction

Understanding the reasons for adoption of M-commerce services by consumers is a pressing industry issue. As a result, both the IS and marketing research community have focused their attention on building, testing and replicating tests of various models that might best predict the intention to adopt and actual adoption of new information technologies.

M-commerce is a potentially lucrative development that has arisen out of the increasing potential of mobile telephone technology. Frolick and Chen (2004) define M-commerce as "wireless E-commerce" where E-commerce is commerce conducted on the Internet. The underlying idea in M-commerce is the *mobility* of commerce itself. Many view M-commerce as having the potential to deliver most of what the Internet can offer, plus this formidable benefit of "doing it anywhere." M-commerce offers users of mobile communication devices (mobile phones and personal digital assistants) the ability to consume a widening variety of services over their mobile device. The potential benefits exist for companies as well: immediate distribution of services, tremendous economies of scale, potential of personalization of services, and immediately visible revenues.

One strong driver of M-commerce has been the steadily increasing global competition and use of substitute technologies, such as e-mail, in the realm of traditional voice services. This has resulted in a drop in the Average Revenue per User (ARPU) for voice services in the wireless telecommunication segment as well. Much hope in the industry is placed on the growth potential from increasing revenues from non-voice mobile data services, such as downloading music, video, mobile Internet applications, and video telephony and messaging. These services offered additional value to the consumer by increasing her flexibility and mobility (Coursaris and Hassanein, 2002).

A case in point: Germany's mobile subscription growth rate is rapidly stalling, falling from 5% in 2004 to an expected 1% in 2009, simply because the market is, at 97% subscribed, approaching maximum saturation (Economist Intelligence Unit, 2005). Further growth in this market will have to happen by complete saturation of the age extremes of the market, and more importantly, by improving ARPU through increasing data services. As seen elsewhere, Germany is seeing growth in these data revenues. The phenomena of decreasing revenues from voice services and rising data revenues will cause the percentage of ARPU spent on data services to rise from 18% in 2005 to 21% in 2007, yet the ARPU is still falling overall from $28 per month to $26.50 or 2.7% annually (Research and Markets, 2007). This mature market clearly presents challenges to its operators with the solution being seen in M-service innovation and adoption.

Other markets face similar challenges. The American market is quickly reaching maturity, albeit with a noticeable lag when compared to Germany. At the end of 2006, 78.5% of the US population, or 236 million consumers, were wireless subscribers with an ARPU of $6.74 per month. Yet the market is set to change radically writes Murphy (2007): she remarks that it is retailers that are taking the lead in the US. She describes the M-commerce industry as "bursting."

In this globally competitive industry, declining ARPU has put providers of mobile services under severe pressure to develop even more innovative services as well as to increase the speed of diffusion of these new services. Further research is needed to understand which are the most relevant influences on consumer adoption of these services. Additionally, the pressures of mature markets are of particular interest as it is these markets that pose the most difficult challenges, and it is ultimately where all markets will end up. Thus, the first objective of this research was to study a mature wireless market to identify the influences on end-user adoption. The second objective was to define a parsimonious model of consumer adoption of M-commerce services. The contribution of this research is the presentation of a model that is simple, a potent predictor of intention to use, and includes a new construct we call *Readiness to Use* that is the key in understanding how the consumer moves from the psychological state of lack of intent to intention to use M-commerce services.

Theoretical Background and Model

Understanding the phenomenon of end-user adoption of technology is a well studied area. A multitude of adoption models have been formulated and studies conducted, to describe and explain the technology or innovation adoption process of end-users. Primarily, these studies consist of constructs and relationships encapsulated by three main models: 1) the Theory of Reasoned Action (TRA); 2) the Theory of Planned Behaviour (TPB); and 3) the Technology Acceptance Model (TAM). The TPB and the TAM have been the models that have received the most attention in the literature (Legris et al., 2003). TAM was evolved from the TPB and has been variously modified to explore tentative constructs, in search of improvement of the TAM in specific domains as well as in general.

Davis (1989) formulated TAM (Figure 1) as: "an adaptation of TRA specifically tailored for modeling user acceptance of information systems" (Davis et al., 1989). The purpose of the TAM is to provide a general explanation of the determinants of user acceptance of information

technology with simplicity and with theoretical justification. It is useful not only to predict behaviour, but also to explain the determinant, such that it can aid technology development and marketing operations in practice. As a model, it has a good track record and is a good place to start in understanding IT adoption.

**Figure 1: The Technology Acceptance Model (TAM)**
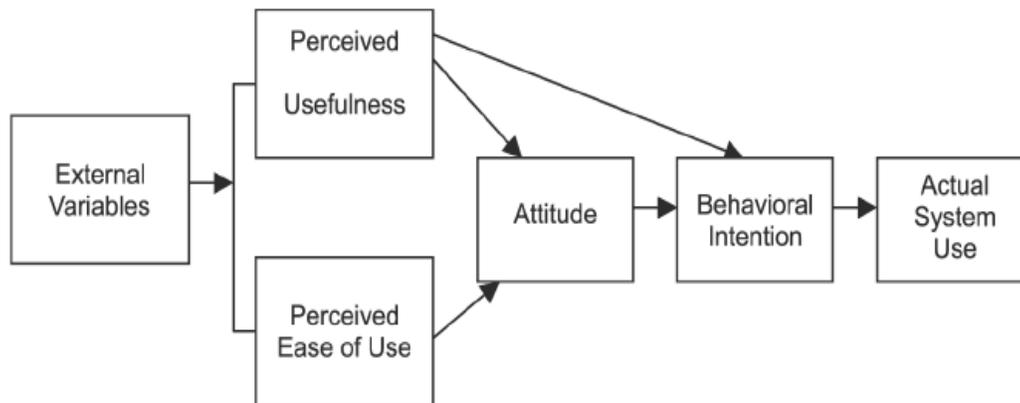
Source: Davis (1989)

After several years of research in this area, in an attempt to find a way forward with so many different models in existence, Venkatesh et al. (2003) identified the eight most prominent models and theories in the literature: 1) the TRA; 2) the TAM; 3) the Motivational Model (MM); 4) the TPB; 5) a model combining TAM and TPB; 6) the model of PC utilization; 7) the innovation diffusion theory; and 8) the social cognitive theory. The goal was to integrate various elements from this rich theoretical field and synthesize the progress made by proposing a model that is a better predictor of new technology use. The models were empirically compared using data collected over a period of six months from four organizations. At the end of these analyses, four constructs were seen to be significant in predicting intention to use in one or more of the models and four moderators were identified (Vankatesh et al., 2003).

These constructs were then integrated and a new theory devised named the UTAUT, (the Unified Theory of Acceptance and Use of Technology), represented by the model below (Figure 2). The theory was confirmed with data from two other organizations with impressive results where 70% of the variance in behavioural intention was predicted by the model.

Figure 2: The UTAUT
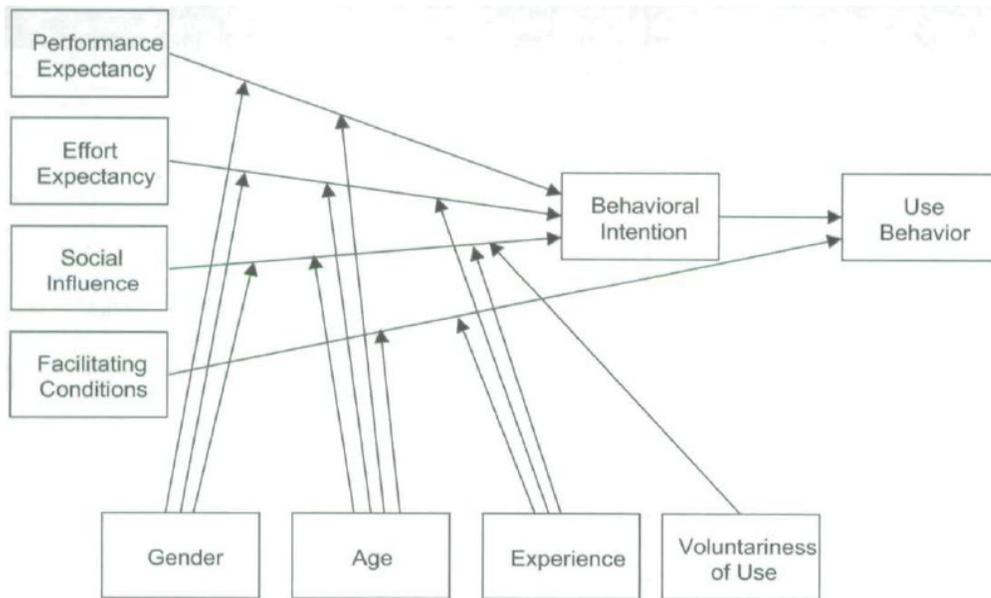
Source: Venkatesh et al. (2003).

Despite these convincing results, we contend it is still too early to accept the UTAUT in all domains. Our reasoning is that the UTAUT was formulated with a view to the adoption of new technologies in an organizational setting by organizational members. Acceptance of the UTAUT in the domain of consumer adoption of new technologies may be premature and modifications may be required to attain similar results.

The UTAUT includes constructs considered most relevant by the analysis conducted by Venkatesh et al. (2003). Our own approach was similar in composing our initial model. We reviewed recent TAM literature as it has been proven in a multitude of contexts (summarized in Table 1), and decided to test Pedersen's (2001) model which included a broad coverage of accepted constructs (see Figure 3).

Table 1: Summary of Recent Literature about the TAM

| Authors	Additional Constructs in Research Model (Beyond the Basic TAM)	Technologies and Research Context	Key Findings
Martins and Kellermanns (2004)	1. Perceived incentive to use 2. Perceived faculty encouragement 3. Peer encouragement 4. Awareness of the capabilities of web CT 5. Access to the system 6. Availability of technical support 7. Prior experience with	• Web-based course management system • Business school students in North-eastern U. S.	The construct 1, 2 and 3 are positively related to perceived usefulness (PU); Construct 4, 6, 7 are positively related to perceived ease of use (PEU); Both of PU and PEU are positively related to student acceptance of system. 5 and 8 were not supported.

	computer and web use 8. Self-efficacy in using the web		
Wixom and Todd (2005)	1. Information quality: completeness, accuracy, format, currency 2. System quality: reliability, flexibility, integration, accessibility, timeliness 3. Information satisfaction 4. System satisfaction	• Data warehousing software • In 7 large organizations which applied data warehousing software	Satisfaction and TAM can and should be integrated to study information systems success.
Sangjo, Joongho and Beomsoo (2003)	1. Compatibility 2. Trialability 3. Visibility 4. Result demonstrability Perceived resources	• Broadband internet • In Universities, firms and households in Korea	The model is partially supported.
Chau and Lai (2003)	1. Personalization 2. Alliance services 3. Task familiarity 4. Accessibility	• Internet banking • Among Business executives who were pursing advanced business degrees at a major university in Hong Kong	Construct 1, 2 and 3 are positively related to perceived usefulness (PU). Construct 4 is positively related to perceived ease of use (PEU). Both of PU and PEU are positively related to users' acceptance.
Fusilier and Durlabhji (2005)	Experience (The study also used TPB with an additional variable: experience)	• Internet • Among students in India	Both TPB and TAM are supported in the study, yet experience has significant influence in both models.
Pijpers and Montfort (2005)	Individual characteristics 1. Organizational characteristics 2. Task-related characteristics 3. Characteristics of the IT resource	• Innovation in information technology • Among senior executives	Most constructs are supported.
Money and Turner (2004)	(Only applied the original TAM)	• Knowledge management System • In two major North-eastern U.S. metropolitan areas with system access	Previous findings are supported.
Schaik, Bettany-Saltikov and Warren (2002)	(Applied only the original TAM)	• Low-cost portable system • 49 physiotherapists from a local NHS trust and the University of Teesside	Perceived ease of use is not a significant predictor of intention to use the system. Other elements are supported.
Eriksson, Kerem, and Nilsson (2005)	Trust	• Internet banking • In Estonia	Perceived ease of use has no significant effect on use. Trust has positive effect on both PEU and PU.
Cheong and Park (2005)	1. Perceived system quality 2. Perceived content quality 3. Internet experience 4. Perceived playfulness 5. Perceived price level	• Mobile internet • In Korea	Supported TAM. Supported part of the developed model.
Stoel and Lee (2003)	Prior experience	• Web-based courseware • In USA	Experience with the technology positively influence PEU. The other parts of TAM are supported.
Curran and Meuter (2005)	Need for interaction Risk	• Self-service technology • In USA	Compared 3 models, but got different results from the same hypotheses.
Fang et al. (2005)	1. Perceived playfulness 2. Perceived security	• Wireless technology • In USA	Most of TAM is supported. The intention to perform gaming tasks is not significantly related to

	3. Task type		PEU.
Karahanna, Agarwal and Angst (2006)	Compatibility of a technology with: 1. Preferred work style 2. Existing work practices 3. Prior experience 4. Values	• CRM system • In USA	The TAM portion of the model is supported.

The data were then re-tested using the more sophisticated UTAUT model modified to reflect a consumer adoption approach more faithfully. The main modification was in the elimination of the Usefulness construct. Although this construct is fundamental to many of the TAM models proposed and tested in the literature, the best constructed scales were originally conceived to measure usefulness in a *professional environment*, and this is certainly so for the UTAUT model put forward by Venkatesh et al. (2003). The transposition of Usefulness into the general consumer landscape proposed by Pedersen (2001) is not entirely convincing, as what is useful to a consumer is not equivalent to what a person will find useful in terms of work.

Next, many attempts to include moderating variables are evident in the literature. The UTAUT includes: 1) Gender; 2) Age; 3) Experience; and 4) Voluntariness. We deleted Voluntariness from further consideration as it does not seem to be a relevant construct from a consumer standpoint: consumers do not purchase or consume goods or services against their own wishes, unlike employees who might be directed to use new technologies.

Figure 3: Pedersen's (2001) Model
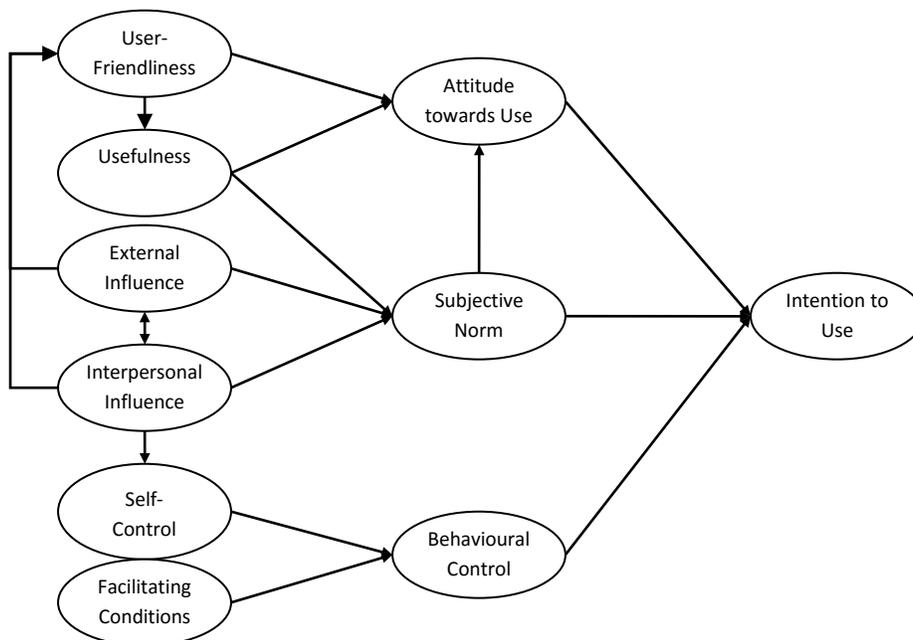
The other constructs proposed in the model by Pederson (2001) have been rejected by Venkatesh et al. (2003), most of them being explained by the four main drivers, Performance Expectancy reflecting Usefulness of the technology, Effort Expectancy which is based on previous User-Friendliness or Ease of Use constructs, Social Influence, and Facilitating Conditions. For example, they concluded that relationships between Behavioural Intention and Attitude (or other similar affect constructs) were spurious, only arising when one or other of the Performance Expectancy or Effort Expectancy were absent from the model. As a result, we propose a new and simplified theory, called the STAT (Simplified Technology Adoption Theory) summarized by the model below (Figure 4).

This model excludes all the constructs dismissed in the review by Venkatesh et al. (2003) such as attitude or self-efficacy, and has also excluded the Usefulness construct as discussed earlier. A new link, *Readiness to Use*, is proposed between the independent variables, and Intention to Use. This is the main conceptual change from previous models proposed in the literature. We conceive of Readiness to Use as a psychological state brought about by the convergence of several environmental stimuli in which the consumer has been sufficiently prepared to make the decision to use the target technology.

Figure 4: The Proposed Simplified Technology Adoption Theory (STAT) Model
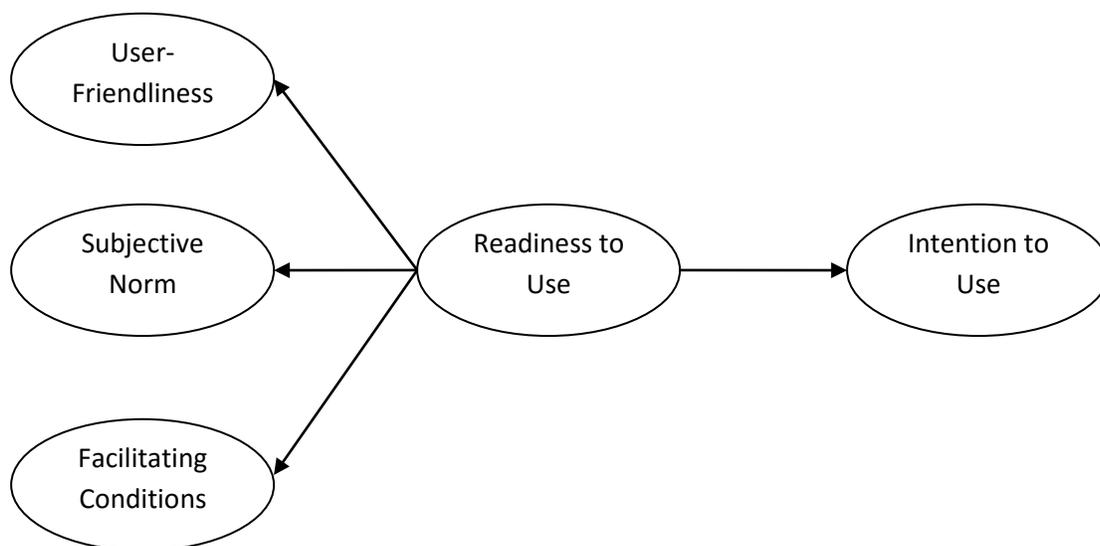
Methodology

Sampling

A face-to-face survey was carried out on a quota sample of 200 German owners and users of mobile devices in Berlin. The quota reflected the demographic make up of mobile device consumers (Pedersen, 2001) and the survey was done over ten days during the opening hours of mobile phone service provider stores in various locations in the city.

Table 2: Demographic Constitution of the Sample

Gender (n = 200)			Age (n = 200)			Education (n = 200)		
Male	113	56,5%	0 – 19	45	22,5%	Primary/Middle level	24	12,0%
			20 – 29	73	36,5%	Secondary/High School	49	24,5%
Female	87		30 – 39	39	19,5%	Practical Training	63	31,5%
		43,5%	40 – 49	22	11,0%	University/College 1 – 4	29	14,5%
			50 – 59	12	6,0%	University/College 4 – 6	35	17,5%
			60 – more	9	4,5%			
n =	200	100%	n =	200	100%	n =	200	100%

SPSS was used to carry out reliability testing, correlation analysis and initial factor analysis. AMOS was used for the structural equation model.

Measurement

Multiple measures for each of the ten constructs were taken using agreement with a set of statements using a seven-point scale ranging from "strongly disagree" to "strongly agree". Attitude towards use is the only construct measured slightly differently, using seven-point scales of bipolar adjectives. The questionnaire was developed using statements from of Pedersen's (2001) survey (see Appendix I for questionnaire items), which in turn relied on previous studies (Battacherjee, 2000; Davis et al., 1989; Taylor and Todd, 1995). The reliability of all the constructs was checked (Cronbach's α scores presented in Table 3). All the scales were found to have Cronbach α scores over 0.7 indicating acceptable reliability, apart from two. External Influence (EI) was measured by three statements, two based on the influence of the media, and the third on the influence of profession ($α = 0.502$). Later factor analysis showed that this last item did not load well onto the EI component so it has been eliminated from the model, leaving a good correlation ($r = 0.93$) between the remaining two items. A similar situation arose for

Behavioural Control (BC) (α = 0.52) where the first two items reflected the amount of freedom possessed by the user, and the third measured whether the user had the means and resources to use services. The correlation between the first two items was high (r = 0.72). A measurement of actual use was also effected, by asking about whether or not the respondent used ten different M-commerce services, and summing the total. A strong, significant correlation (r = 0.76, p = 0.001) was found as expected from the literature Actual Use was not included in the model as Behavioural Intention is generally accepted as a reliable substitute measurement (Sheppard et al., 1988), and including two measures of the same, or highly similar variables seemed redundant.

Factor analysis was carried out and items loading under 0.7 were eliminated from the model. To increase the parsimony of the model, only the three indicators loading best for each construct (Table 3, in bold) were used in the final version.

**Table 3: Convergent Validity and Internal Consistency Reliability**

Construct	Item	Factor Loading	Cronbach's α
User Friendliness	**UF1**	**0.87**	0.946
	UF2	0.83	
	UF3	0.85	
	UF4	**0.88**	
	UF5	**0.88**	
Usefulness	UN1	0.17	0.882
	UN2	0.85	
	UN3	**0.92**	
	UN4	**0.89**	
	UN5	**0.93**	
Attitude	**ATT1**	**0.79**	0.888
	ATT2	0.77	
	ATT3	0.78	
	ATT4	**0.80**	
	ATT5	**0.79**	
External Influence	**EI1**	**0.95**	0.502
	EI2	**0.97**	
	EI3	0.10	
Interpersonal Influence	**II1**	**0.83**	0.706
	II2	**0.80**	
	II3	**0.70**	
	II4	0.26	
Subjective Norm	**SN1**	**0.88**	0.934
	SN2	**0.88**	
	SN3	**0.89**	
Self-Control	**SC1**	**0.91**	0.923
	SC2	**0.93**	
	SC3	**0.83**	
Facilitating Conditions	FC1	0.78	0.828
	FC2	0.62	

	FC3	0.78	
	FC4	0.84	
	FC5	0.84	
Behavioural Control	BC1	0.87	0.519
	BC2	0.91	
	BC3	0.03	
Intention to Use	INT1		**Pearson's r = 0.941**
	INT2		

Analysis and Results

The results of the structural equation model calculated for the Pederson model are illustrated below in Figure 5.

Figure 5: Standardized Regression Weights and R^2 for TAM Based on Pederson (2001)
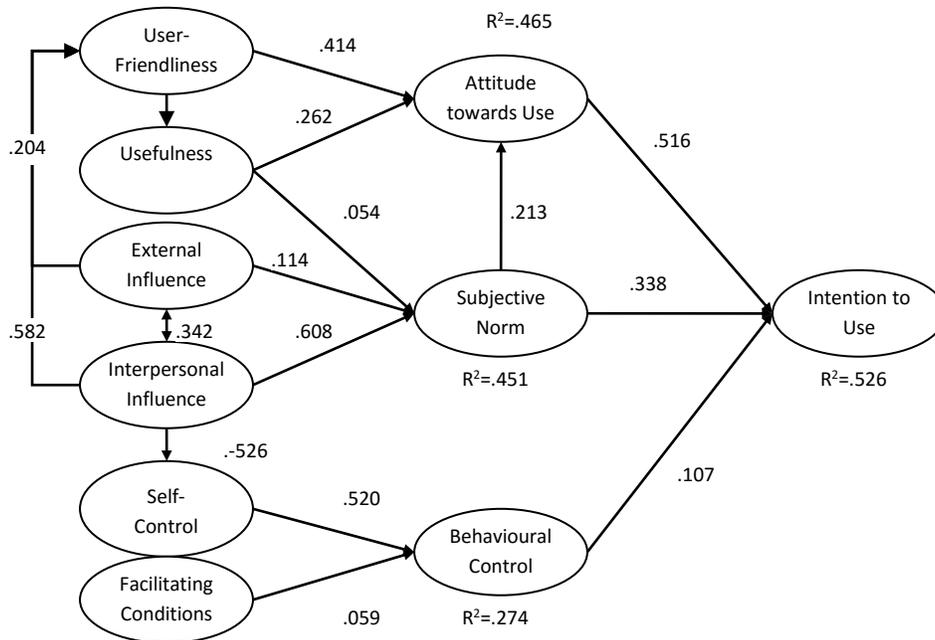
Although relationships between most of the constructs of the model were verified to significance below p = 0.05, three relationships were found to be non-significant, that between the Usefulness and Subjective Norm constructs (p = 0.377), between Facilitating Conditions and Behavioural Control (p = 0.413), and between Behavioural Control and Intention to Use (p = 0.068). These results were unsatisfactory, and it was decided to re-interpret the data using the more up-to-date and broader UTAUT model approach proposed by Venkatesh et al. in 2003,

with some modifications to take into account the different context. In fact, simple bivariate correlation of the variables showed that all three independent variables had strong and direct correlations with each other (Table 4).

Table 4: Correlations between Main Variables in STAT Model

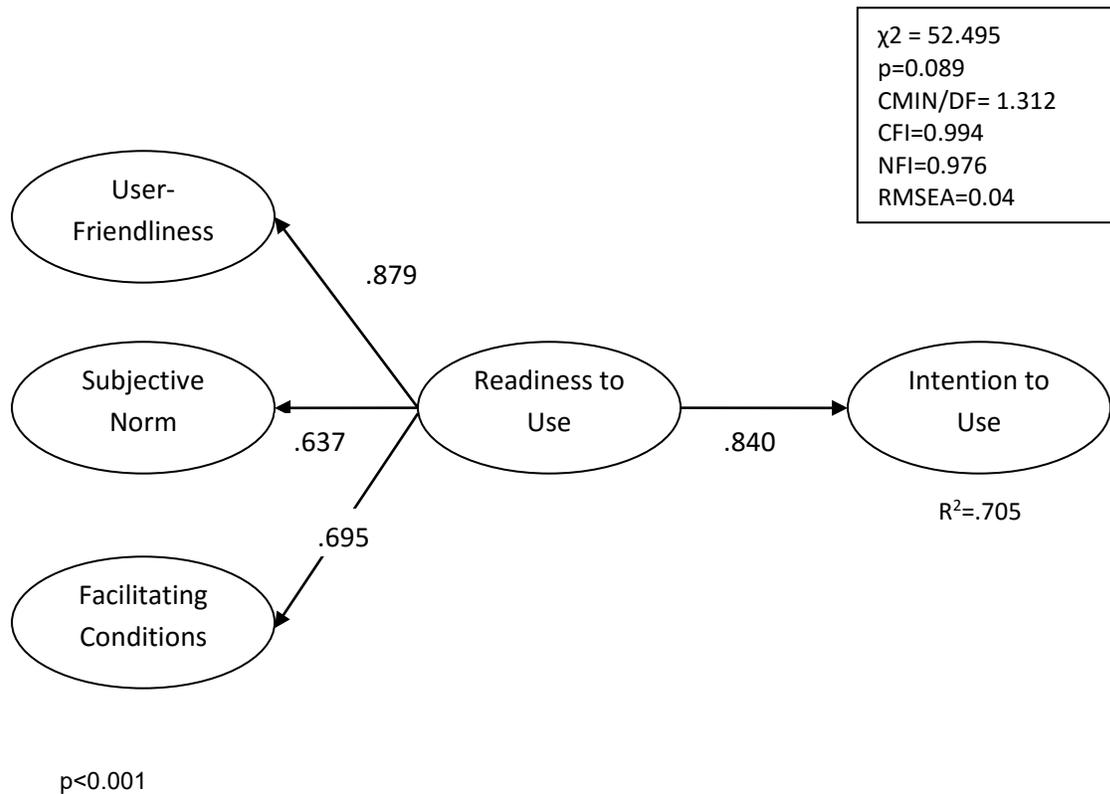| Construct A		Construct B	Pearson's r
Facilitating Conditions	<-->	User Friendliness	0.629
Subjective Norm	<-->	User Friendliness	0.556
Subjective Norm	<-->	Facilitating Conditions	0.401

p<0.001

The UTAUT model, as mentioned before, proposes four drivers for behavioural intention: Effort Expectancy, Social Influence, Facilitating Conditions and Performance Expectancy. The equivalent constructs from the TAM model, User-friendliness, Interpersonal Influence and Facilitating conditions respectively were used in the new model. Usefulness was excluded for the reasons discussed previously. The fact that correlation between the three independent variables was high led us to conceive of a unifying phenomenon linking environmental stimulants to the formulation of behavioural intention to use. We therefore included a latent, second-order variable between the three observable stimulants, and the dependent variable Intention to Use. We named this latent variable *Readiness to Use*, reasoning that if all the environmental stimulants act significantly upon the consumer, i.e. the system is perceived as user-friendly, the user's friends and colleagues are using the system and recommend it, and the means and resources are available for the consumer to avail him or herself of the technology, all these together will lead to a specific psychological state required prior to the formulation of a conscious intention to use. The results for this model are illustrated below in Figure 6.

We found that all three environmental stimulants, Perceived User Friendliness, Subjective Norm and Facilitating Conditions had a strong and significant contribution to Readiness to Use, with perceived User Friendliness having the strongest effect (β= 0.879), followed by Facilitating Conditions (β= 0.695) and finally by Subjective Norm (β= 0.637).

The overall fit of the model was excellent, with $\chi 2$ = 52.495 (p=0.089), CMIN/DF between 1 and 2 (Carmines and McIver, 1981, p.55) and an RMSEA under 0.05 indicating very close fit. The CFA and NFI indices are well over 0.9 and close to 1, again showing good fit. Readiness to Use has a very high implied correlation with intention to use (β= 0.840), and finally, 70.5% of the variance

in intention to use is explained by the model, a result which entirely matches that of Venkatesh et al. (2003), while retaining the goal of model simplicity.

Figure 6: Standardized Regression Estimates, R^2 and Fit Statistics for the STAT Model

χ2 = 52.495
p=0.089
CMIN/DF= 1.312
CFI=0.994
NFI=0.976
RMSEA=0.04

User-Friendliness

.879

Subjective Norm

Readiness to Use

Intention to Use

.637

.840

R^2=.705

.695

Facilitating Conditions

p<0.001

Other research has reported several modifying variables such as age, gender, experience and educational background (summarized by Venkatesh, 2003). Analysis using t-tests and one-way ANOVA on the mean scores of the summed indicators has shown that as far as gender is concerned, there is no significant difference in any of the variables for the German sample interviewed.

There was, however, a significantly lower score in the group "Practical Training" (educational background) in Intention to Use and Perceived User Friendliness (compared to the under-19's and university students) which may mean that this group is less interested in M-commerce services than the others.

Table 5: ANOVA Results

		Sum of Squares	df	Mean Square	F	Sig.
Intention to Use	Between Groups	44,808	4	11,202	4,919	,001
	Within Groups	444,031	195	2,277		
	Total	488,839	199			
Subjective Norm	Between Groups	19,793	4	4,948	4,039	,004
	Within Groups	238,930	195	1,225		
	Total	258,723	199			
Facilitating Conditions	Between Groups	39,079	4	9,770	6,109	,000
	Within Groups	311,834	195	1,599		
	Total	350,913	199			
User Friendliness Perception	Between Groups	37,436	4	9,359	5,258	,000
	Within Groups	347,105	195	1,780		
	Total	384,542	199			

The clearest effect, however, is the age effect, with a significant decrease in the means of all variables with age. It is clear that the environmental stimuli have less effect, and that M-commerce services become less appealing with age (Figure 7).

Figure 7: The Age Effect
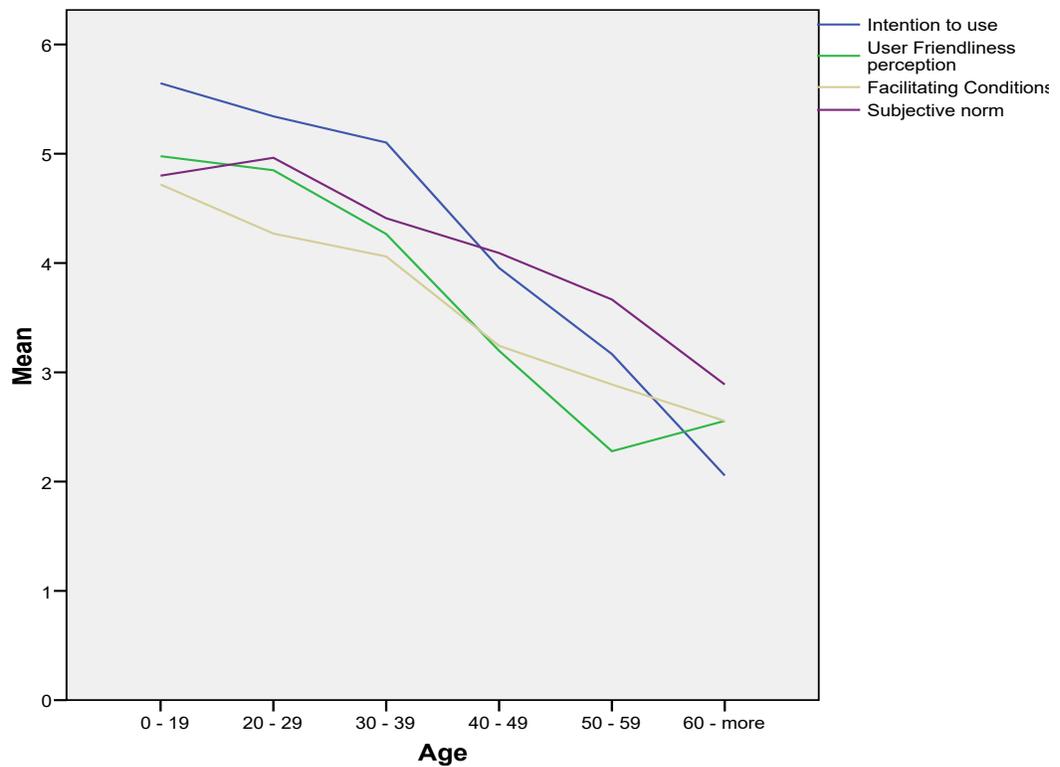
Discussion and Conclusions

It is hoped that the STAT model proposed in this study will encourage researchers and marketing professionals to take pause in the debate regarding the antecedents, or stimuli, to the development of consumer behavioural intention to use M-commerce services and their underlying technologies. We contend it may be particularly important to treat consumer adoption apart from adoption by individuals in organizational settings.

Although a Perceived Usefulness construct would be a conceptually sound addition to the stimuli to Readiness to Use in this model, (as long as a reliable scale can be found to measure consumer perception of usefulness for general M-commerce), it may in fact reduce the predictability of the model by introducing unnecessary complexity. We suggest, however, that it is a logical follow-on to this research and should be included in the subsequent empirical testing and refinement of this model.

The simplicity of the model, and the fact that the stimuli are few and easy to measure reliably could also be of benefit to marketing practitioners making it easier to understand how better to spur intention to use in the consumer technology markets.

The implications of these findings will also be of interest to academics and researchers. Firstly, a new simplified model is proposed for consumer technology acceptance which relates environmental stimuli to a specific psychological state of readiness to use a technology, which then translates into behavioural intention to use that technology. Secondly, the STAT (Simplified Technology Acceptance Theory) moves away from other TAM approaches, and towards the UTAUT configuration in that it concentrates on the inclusion of environmental stimuli as independent variables, rather than the inclusion of more elusive psychological constructs such as Attitude towards Use.

Future research using this model should test its robustness by assessing a variety of different information technologies and culturally diverse consumer backgrounds. Germany is a relatively homogeneous consumer context with an identifiable culture, and it is possible that results will differ in other cultural contexts: the degree of importance of Subjective Norms is most likely not universally equivalent. It may also be true that as the older generation progressively becomes more familiar with technology, and as the younger generations age, the age effect which is so evident in this and other studies may become less prominent in studies to come.

Appendix 1 – Questionnaire Items

Construct	Code	Questionnaire Items
User Friendliness	UF 1 UF2 UF3 UF4 UF5	Learning to use mobile commerce services is easy to me. It is easy to make the mobile commerce services do what I want them to. My interaction with mobile commerce is clear and understandable. I find it easy to interact with mobile commerce services. I find it easy to use mobile commerce services.
Usefulness	UN1 UN2 UN3 UN4 UN5	Using mobile commerce services saves me time. Mobile commerce services make me a better consumer. Using mobile commerce services improves my efficiency as a consumer. Mobile commerce services are useful to me as a consumer. Mobile commerce services increases my effectiveness as a consumer.
Attitude	ATT1 ATT2 ATT3 ATT4 ATT5	Bad - Good Foolish - Wise Unfavourable - Favourable Harmful - Beneficial Negative - Positive
External Influence	EI1 EI2 EI3	Media is full of reports, articles and news suggesting using mobile commerce services is a good idea. Media and advertising consistently recommend using mobile commerce services. In my profession it is helpful to use mobile commerce services.
Interpersonal Influence	II1 II2 II3 II4	Almost all of my friends use mobile commerce services. Almost all my colleagues think using mobile commerce services is a good idea. My friends/colleagues think that we should all use mobile commerce services. Some of my friends/colleagues recommended that I should try mobile commerce services.
Subjective Norm	SN1 SN2 SN3	People important to me think I should use mobile commerce services. People who influence my behaviour think I should use mobile commerce services. People whose opinion I value prefer me to use M-commerce services.
Self-Control	SC1 SC2 SC3	Generally speaking I want to do what my friends think I should do. Generally speaking I want to do what my superiors think I should do. My friends/colleagues and I use the same kinds of mobile services.
Facilitating Conditions	FC1 FC2 FC3 FC4 FC5	I am given the necessary support and assistance to use mobile commerce services. I have the financial and technological resources required to use mobile commerce services. have access to the software, hardware and network services required to use mobile commerce services. The mobile commerce services I use are well integrated and provided in a stable service infrastructure. My provider/operator facilitates the use of mobile commerce services.
Behavioural Control	BC1 BC2 BC3	I feel free to use the kind of mobile commerce services I like. Using mobile commerce services is entirely within my control. I have the necessary means and resources to use mobile commerce services.
Intention to use	INT1 INT2	I intend to use mobile commerce services the next six months. I intend to use some M-commerce services frequently the next six months.

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