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## Salesperson adoption and usage of mobile sales configuration tools

### Abstract

**Purpose-** The purpose of this paper is to examine salespersons' adoption and usage of mobile sales configuration tools (MSCT) and to identify areas for further development in this realm. Another objective is to offer a conceptualization of MSCT adoption.

**Design/methodology/approach-** For this purpose, a qualitative case study approach was selected as the research method to better understand acceptance of a mobile configuration tool used by B2B salespersons. Primary data was collected through semi-structured interviews, which included a series of open-ended questions to gain more detailed and contextual data.

**Findings-** The results obtained from the interviews indicated several important determinants of adoption of sales configuration tools, and three different personal innovativeness types were identified.

**Research Limitations/implications-** The current study has certain limitations that should be considered in future studies. First, the results of this study cannot be generalized in other contexts due to small number of participants (nine salespersons) included. Second, social desirability might have affected the results in a way that caused the salespersons to have been tempted to talk positively about MSCT.

**Practical Implications-** Based on the findings several suggestions for managers and software developers are made such as further technical development of MSCT, development of common sales routine for all salespersons, mentoring new salespersons, and establishing social media channels for salesperson to interact with each, share experience/knowledge.

**Originality/value-** Current paper can serve as pathway toward understanding of MSCT adoption and usage as it opens new avenues as a source of hypotheses for a quantitative analysis of certain phenomena such as the correlation between MSCT usage and sales performance.

**Keywords:** sales, sales force automation, B2B sales, mobile sales adoption, qualitative

**Paper type** Research paper

## 1. Introduction

Technological advancements in information systems and their introduction into business organizations have made sales force automation (SFA) systems important business tools, which companies are continuously investing in despite the high cost of implementation (Buttle, Ang, & Iriana, 2006; Jelinek, Ahearne, Mathieu, & Schillewaert, 2006; Parthasarathy & Sohi, 1997). As part of an organization's customer relationship management (CRM) system, which connects and integrates sales with other operations, SFA system electronically supports organizational sales activities that are performed by sales professionals (Barker, Gohmann, Guan, & Faulds, 2009). Many definitions of SFA exist in the literature. Baker and Duleep (2013) defined SFA as comprising computer-based software and relational database technologies designed to support field sales activities. Sinisalo et al. (2015) defined mobile SFA as a system that enables a salesperson to retrieve data via mobile devices to support sales while on the road. Jelinek (2013) defined it as the set of technology tools that better equip a sales and marketing organization to practice CRM. The common point to these definitions is that SFA involves the application of information technology to support the sales function (Buttle et al., 2006).

Major SFA features include providing automated sales tools for the following: (1) efficient sales activities; (2) connecting sales with the rest of the organization for better information flow; (3) offering standardized tools for more efficient sales; and (4) providing managers with the information needed for sales' monitoring and evaluation (Barker et al., 2009). Additional SFA functions include collecting, storing, analyzing, and distributing customer related data among salespersons and managers (Buttle et al., 2006) as well as appointment management, customer information management, time management, generating reports, creating quotes (Baker & Delpechitre, 2013) among many other activities. Overall, firms use SFA to make their sales

forces more efficient (Honeycutt, Thelen, Thelen, & Hodge, 2005) and productive (Sinisalo et al., 2015).

Depending on the nature of work involved firms may implement adoption of specific types of SFA technologies at various levels. Mobile SFA is one of such technologies that firms may choose to adopt. Buttle et al. (2006) suggested that mobile solutions are necessary because SFA systems must be operable out of the office for companies with geographically dispersed salespeople. A mobile sales configuration tool (MSCT) is one such solution; it is a part of the SFA system used with mobile devices (laptops, smartphones, and tablets) that help sales professionals easily configure products in their sales activities. Flexibility of communication is the most important characteristics of mobile devices in SFA context (Sinisalo et al., 2015). Rodriguez and Trainor (2016) also support this in their study of mobile CRM application adoption by stating that mCRM enables salesperson to access information and update sales activities anytime and anywhere in real time. Per Karjaluoto et al. (2014), the laptop is currently the most used mobile device for accessing a company's CRM system. With the help of MSCT, salespersons can configure products and update customer information and offers in their company's CRM system.

Because of the high cost of SFA implementation, companies are concerned with both the return on investment (ROI) (Bush, Moore, & Rocco, 2005) and the benefits of SFA in practice, while researchers are interested in providing explanations and predictions for both adoption and usage. Therefore, this area has been of great interest to researchers (Ahearne, Jelinek, & Rapp, 2005; Moutot & Bascoul, 2008). SFA research dates to the 1980s (Buttle et al., 2006; Collins, 1984; Wedell & Hempeck, 1987), and it has been an active research stream in academia ever since. Past SFA research has mainly focused on SFA system adoption (Avlonitis & Panagopoulos,

2005; Jones, Sundaram, & Chin, 2002; Morgan & Inks, 2001) and its effects on a salesperson's performance (Ahearne et al., 2005; Avlonitis & Panagopoulos, 2005; Park, Kim, Dubinsky, & Lee, 2010; Robinson, Marshall, & Stamps, 2005). Different than consumer adoption, SFA adoption is a more complicated process that progresses through two stages (Parthasarathy & Sohi, 1997). First, the decision to adopt a technology is made at the organizational level, followed by the individual salespersons' use of the technology. Therefore, the entire process is dependent on both organizations and individuals. Firms adopt SFA systems to improve efficiency and effectiveness of sales activities by computerizing routine tasks (Honeycutt et al., 2005), which can only occur when salespeople utilize SFA systems properly (Morgan & Inks, 2001). While some studies have shown that SFA systems increase sales and salespersons' productivity (Boujena, Johnston, & Merunka, 2009; Jayachandran, Sharma, Kaufman, & Raman, 2005; Keillor, Bashaw, & Pettijohn, 1997), others have reflected concerns that technology often fails to improve sales performance (Speier & Venkatesh, 2002), which was supported empirically (Ahearne, Srinivasan, & Weinstein, 2004; Avlonitis & Panagopoulos, 2005). Therefore, some past studies have focused on examining ways to influence salespersons' SFA tool adoption to improve performance (Baker & Delpechitre, 2013), while others have focused on examining reasons that led to technology implementation failures (Speier & Venkatesh, 2002). For instance, per Barker et al. (2009), changes to established sales routines, perceiving the system as a micromanagement tool, varying expectations of the sales force and management regarding the system, and perceiving that management failed to show strong commitment to implementation all contribute to low SFA acceptance.

Despite the importance of technology use in sales work, empirical research on adoption and usage of mobile SFA is quite limited (see Rangarajan, Jones, & Chin, 2005; Speier & Venkatesh,

2002). Additionally, to the best of the authors' knowledge, much of the research to date has been quantitative in nature and less research conducted on salespersons' adoption of MSCT to answer 'how' and 'why' questions. The objective of this study is two-fold. First, business to business (B2B) salespersons' experience with MSCT in sales activities with customers will be examined. Second, based on these examinations, key determinants of MSCT adoption will be theoretically identified. By achieving these objectives, the current study will contribute to further understating of both the adoption and usage of MSCT in sales activities.

This paper is organized into five parts, including the introduction chapter. In part two, the literature is reviewed and the theoretical dimensions of the study are presented. Part three includes the research design, and part four reveals the results. The final part includes a summary of the study, recommendations, a critique of the methodology, and recommendations for future research.

## **2. Literature review**

There are many published studies available on information systems (IS) that are dedicated to examining technology adoption (Davis, Bagozzi, & Warshaw, 1989). These can be categorized into three streams: individual acceptance of technology, implementation success at the organizational level, and task-technology fit (Venkatesh, Morris, Davis, & Davis, 2003). In all three streams, studies were based on technology acceptance theories, which included competing models with a variety of determinants (Venkatesh et al., 2003). Most past studies on salespersons' SFA adoption were based on the technology acceptance model (TAM) (Davis, 1989) and its modifications (Buttle et al., 2006), while TAM and the unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al., 2003) have been the main theories used in mobile technology adoption (Sanakulov & Karjaluoto, 2015). A literature review conducted for



this study showed that the innovation diffusion model (IDT) has also been used in many SFA studies. Past studies have indicated that all these models have been successful in examining technology adoption. For this reason, TAM/TAM2, UTAUT, and IDT were chosen as a theoretical framework for this study. Additionally, constructs that are based on various past SFA acceptance studies will be examined as part of the same theoretical framework.

### *2.1 Technology acceptance model*

TAM, which evolved from the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975) and the theory of planned behavior (TPB) (Ajzen, 1991), is the most popular and effective model used in IS research for predicting technology adoption (Avlonitis & Panagopoulos, 2005; Davis, 1989; Venkatesh & Davis, 2000). TAM posits that perceived usefulness (PU) and perceived ease of use (PEOU) are key determinants of an individual's behavioral intention to use a technology. Davis (1989, p.320) defines PU as 'the degree to which a person believes that using a particular technology will enhance her/his job performance' and PEOU as 'the degree to which a person believes that using a technology will be free from effort.' TAM has been extended to TAM2 by Venkatesh and Davis (2000), who identified and theorized determinants of PU and two moderators. TAM2 presents both the social influence process and the cognitive instrumental process to explain the effects of the various determinants of perceived usefulness and behavioral intention (Venkatesh & Bala, 2008), and per the authors, the social process is represented by a subjective norm and image, while cognitive processes include job relevance, output quality, results demonstrability, and PEOU to represent the influence of the cognitive instrumental process. Experience and voluntariness are included as moderators.

Since its development, TAM has been used by SFA studies in various contexts (Avlonitis & Panagopoulos, 2005; Robinson et al., 2005), and it has been extended with variables relevant to

the contexts of the studies (Jones et al., 2002; Lu, Yu, Liu, & Yao, 2003; Venkatesh & Davis, 2000). For example, Lu et al. (2003) examined the acceptance of wireless internet via mobile devices. Their results indicated a positive effect of PU, PEOU, social influences, a wireless trust environment, and facilitating conditions on acceptance. Also, Michael Rodriguez and Kevin Trainor (2016) proposed a conceptual model based on TAM and TPC (Technology- to-performance chain) to outline benefits of providing mobile CRM capabilities to salespersons.

## *2.2 Unified theory of acceptance and use of technology*

Venkatesh et al. (2003) developed a unified theory of acceptance and use of technology (UTAUT) model based on eight different earlier technology acceptance models: the theory of reasoned action (TRA), the technology acceptance model (TAM), the motivational model (MM), the theory of planned behavior (TPB), a combined theory of planned behavior/technology acceptance model (TPB), the model of PC utilization (MPCU), diffusion theory (IDT), and social cognitive theory (SCT). The UTAUT, which aims to explain user intentions regarding technology, includes four determinants: performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC). PE is defined as the degree to which an individual believes that using the system will help him or her attain gains in job performance. EE is defined as the degree of ease associated with the use of the system. SI is defined as the degree to which an individual perceives that it is important for others to believe that they should use the new system. FC is defined as the degree to which an individual believes that organizational and technical infrastructures exist to support use of the system. The model also includes the four moderators of gender, age, experience, and voluntariness of use. Per Venkatesh et al. (2003), the proposed UTAUT model's prediction power reached 70%, which was a major improvement when compared with TAM. Since its introduction, there have been many IS studies that were

based on UTAUT in various contexts (Sanakulov & Karjaluoto, 2015). Some simply based their research on the original UTAUT model, while others extended it with new constructs by following suggestions made by Venkatesh et al. (2003), who encouraged more research on new constructs.

### *2.3 Innovations diffusion theory*

Since 1960, IDT (Rogers, 1995) has been successfully applied and adapted in various innovation studies. Per Rogers, a person's perceptions of an innovation's attributes determine whether he/she will adopt it (S. Lee, 2013). Moore and Benbasat (1991) adapted the characteristics of innovations and formed constructs that can be used in IS research to examine individual technology acceptance (Venkatesh et al., 2003). They added three new constructs: observability, trialability, and voluntariness. IDT proposes five important attributes of innovation that affect individuals' technology adoption (Moore & Benbasat, 1991):

- 1) Relative advantage: 'The degree to which an innovation is perceived as being better than its precursor.'
- 2) Compatibility: 'The degree to which an innovation is perceived as being consistent with the existing values, needs, and past experiences of potential adopters.'
- 3) Complexity: 'The degree to which an innovation is perceived as being difficult to use.'
- 4) Observability: 'The degree to which the results of an innovation are observable to others.'
- 5) Trialability: 'The degree to which an innovation may be experimented with before adoption.'

### *2.4 Perceived risk*

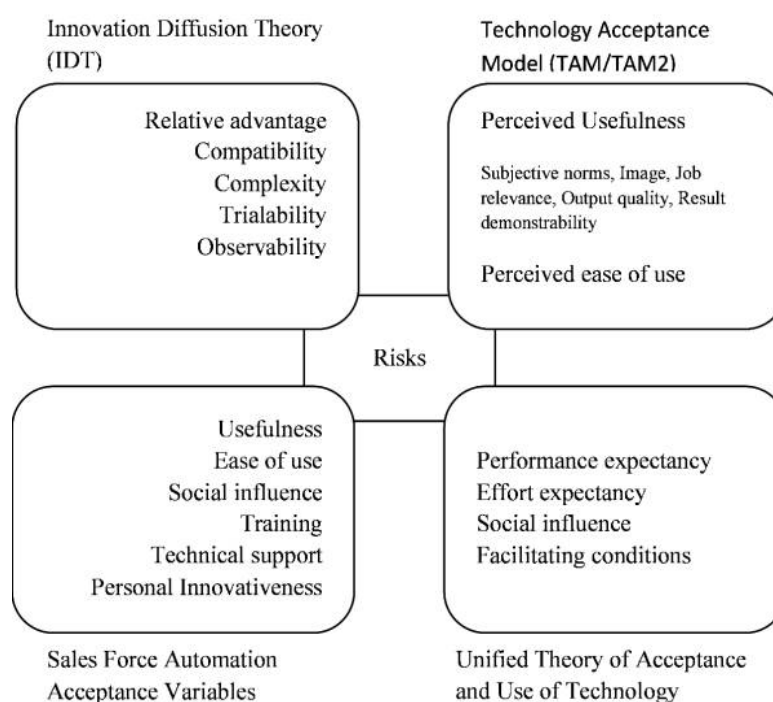
Various definitions of perceived risk are available, such as ‘the expectation of losses associated with purchases’ (Peter & Ryan, 1976) and ‘customers’ subjective expectations related to the monetary and/or non-monetary loss associated with the use’ (Roy, Balaji, Kesharwani, & Sekhon, 2016). The important role that perceived risk plays in the adoption process has been indicated in past studies (Holak & Lehmann, 1990; Karjaluoto et al., 2014; Roy et al., 2016) and has been used in consumer behavior research in various contexts such as online payment (Yang, Pang, Liu, Yen, & Tarn, 2015), mobile banking (Roy et al., 2016), online banking (M. Lee, 2009) and mobile SFA (Sinisalo et al., 2015). In addition, there are varying dimensions of perceived risk proposed for different contexts. For example, Lee (2009) investigated five types of risk— security/privacy, financial, social, time/convenience, and performance related to online banking and he did not include physical risk as online banking does not cause any threat to human life.

### *2.5 Variables from past SFA studies*

Our extensive literature review of past studies revealed that SFA acceptance and usage are dependent on salespersons’ perceptions of SFA’s usefulness (Avlonitis & Panagopoulos, 2005; Jones et al., 2002; Robinson et al., 2005; Schillewaert, Ahearne, Frambach, & Moenaert, 2005), ease of use (T. M. Lee & Park, 2008), personal innovativeness (Avlonitis & Panagopoulos, 2005; Jones et al., 2002; Schillewaert et al., 2005), facilitation conditions as training (Ahearne et al., 2005; Jones et al., 2002; Morgan & Inks, 2001; Rangarajan et al., 2005; Schillewaert et al., 2005), social influence (peer, manager) (Buehrer, Senecal, & Pullins, 2005; Burkhardt, 1994; Homburg, Wieseke, & Kuehn, 2010; Schillewaert et al., 2005; Venkatesh et al., 2003; Weinstein & Mullins, 2012), amount of effort they exert (Rangarajan et al., 2005), technical support (Buehrer et al., 2005), and threat of competing salespersons or peers who use a similar sales

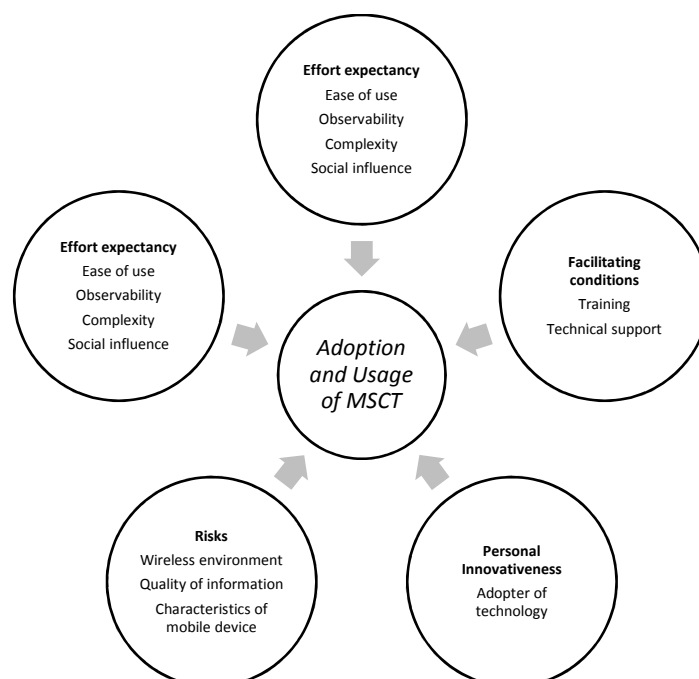
technology (risk not to adopt) (Schillewaert et al., 2005). Mathieu et al. (2007) noted that experience is negatively related to technology adoption by salespersons. Per Buehrer et al. (2005), some salespeople do not use SFA technology, mainly due to lack of management and technical support, while training is the most effective way to increase the use of SFA technology. Based on the literature review, Figure 1 illustrates the theoretical links between the theories, frameworks, and variables used in SFA acceptance and usage studies.

*Figure 1. Theoretical links between theories, frameworks, and variables used in SFA acceptance and usage*



After synthesizing the literature, a framework for the adoption and usage of a mobile sales configuration tool can be determined, as shown in Figure 2.

*Figure 2. Theoretical framework for adoption and usage of MSCT*



### 3. Research design

#### 3.1 Methodology

A qualitative case study approach was selected as the research method to better understand acceptance of a mobile configuration tool used by B2B salespersons. A case study is an empirical research method that examines the current phenomenon in its own environment, where the determination of the phenomenon and the context are not clearly visible (Yin, 1994). Yin (1994) emphasized that, through qualitative data, it is possible to capture the richness of the participants' experience. For this study, salespersons working for an international machine manufacturing company based in Finland were interviewed. The studied company has used MSCT, which has been under constant development that aimed to improve its features as well as its functionality, for several years. Primary data was collected through semi-structured interviews, which included a series of open-ended questions to gain more detailed and contextual data, with salespersons. The interviews were conducted during November and December of 2015

via the Skype for Business application. Interview dates and times were agreed upon by the authors and interviewees in advance. At the beginning of each interview, the authors assured the participants that confidential and personally identifiable information would not be disclosed at any stage of the research. The main themes discussed during the interviews included performance expectancy, effort expectancy, facilitating conditions, personal innovativeness, and risks. A few follow-up questions arose during the data analysis, and participants were re-contacted to obtain that information.

### *3.2 Participants*

To accomplish the aim of this study, a purposive sampling technique was used to solicit participants who had several years' experience with a specific mobile sales configuration tool. Intensity sampling was chosen because the target group consisted of information-rich cases that intensely manifested the phenomenon (Patton, 2002). Being a salesperson in the same machine manufacturing company and having experience with sales configuration were the criteria set for participant selection. Nine participants were chosen from nine different cities in various regions of Finland. All participants were males who had between 8 and 27 years (mean=15.8 years) of sales experience and had worked as a salesperson at their respective companies for 8–27 years (mean=13.3 years), as shown in Table 1.

*Table 1. Participant details*

Salespersons <sup>1</sup>		Sales experience in this company (yrs.)	Total sales experience (yrs.)	Sales area
1	George	27	27	Central Finland
2	Sam	13	13	West Finland
3	Ted	8	8	Southwest Finland
4	John	18	25	Southeast Finland

5	William	10	15	Southwest Finland
6	Noel	8	9	Northeast Finland
7	Elton	8	17	East Finland
8	Harry	15	15	North Finland
9	Cliff	13	13	Northeast Finland

<sup>1</sup> All names have been changed

Based on sales performance records, each participant was categorized as either a ‘good salesperson’ or one who had ‘problems in selling’ (Table 2). Those in the ‘good salesperson’ category had a positive marginal profit, and they had either sold more machines than the average or their stock was lower than average (salespersons 1, 2, 6, and 9). Although they were considered ‘good,’ some areas in their sales needed improvement. Those in the latter category had either many or quite serious problems in their sales (salespersons 3, 4, 5, 7, and 8). Two salespersons in this category were ranked as ‘top 4 sold items’; however, their marginal profit was negative, and their stock was higher than average.

*Table 2. Participants’ sales results and classification based on performance for 2014*

Salespersons	Sold more items than average	Top four sold items	Positive marginal profit	Top profit	Market share more than average (53%)	Stock lower than average	Classification of salespersons based on results
1 George	Yes	4	Yes	2	Yes	Yes	Good salesperson
2 Sam	Yes	1	Yes	3	Yes	No	Good salesperson
3 Ted	No	-	No, very low	-	No	Yes	Problems in selling
4 John	Yes	3	No, very low	-	Yes	No	Problems in selling
5 William	Yes	2	No, very low	-	Yes	No	Problems in selling
6 Noel	No	-	Yes	1	No	Yes	Good salesperson
7 Elton	No	-	No	-	No	Yes	Problems in selling
8 Harry	No	-	No	-	No, very low	Yes	Problems in selling
9 Cliff	No	-	Yes	4	Yes	Yes	Good salesperson

#### 4. Data analysis



All semi-structured interviews were digitally recorded. The duration of the interviews ranged from 20 to 35 minutes (mean=25 min). The interviews were transcribed *verbatim* by a professional transcriber, which resulted in 78 pages of single-spaced text.

The interviews were then analyzed using thematic content analysis. For this, Tuomi and Sarajärvi's (2003) content analysis was used and complemented with Braun and Clarke's (2013) Stages of Thematic Analysis: 1) transcription, 2) reading and familiarization, 3) finding of codes (simplified expressions), 4) listing all codes, 5) searching for similarities and differences, 6) combining codes and formulating lower-end themes (categories), 7) combining lower-end themes and formulating higher-end themes, 8) combining higher-end themes and defining, naming, and formulating the main concept themes, 9) reviewing themes, 10) checking the thematic analysis, and 11) writing the report (Tuomi & Sarajärvi, 2003).

In total, 214 codes were underlined with different colors and marks. A search for similarities and differences was conducted, based on the theoretical framework. The data were abstracted into 32 (19+13) lower-order themes and 10 higher-order themes. The higher-order themes were combined into five main themes: performance expectancy, effort expectancy, facilitating conditions, personal innovativeness, and risks.

Typology was also used to classify the data to find patterns and differences concerning salespersons' personal innovativeness in adoption of mobile sales tools. In the analysis, classificatory typology was used, in which a 'type' was a characterized case. First, the empirical data were coded as falling into either one category or another, which guided the researcher (Elman, 2005).

According to Mäkelä (1990), to evaluate rigor and trustworthiness in qualitative research, one should consider the following: 1) the significance of the data and the societal and/or cultural situation, 2) data sufficiency, 3) coverage of analysis, and 4) evaluate-ability and repeatability of the data analysis. The research was illustrated via figures, hierarchical content trees, and direct quotations, which enable the reader to either accept or reject the interpretation and findings of a salespersons' experience in both the use and adoption of a mobile sales configuration tool.

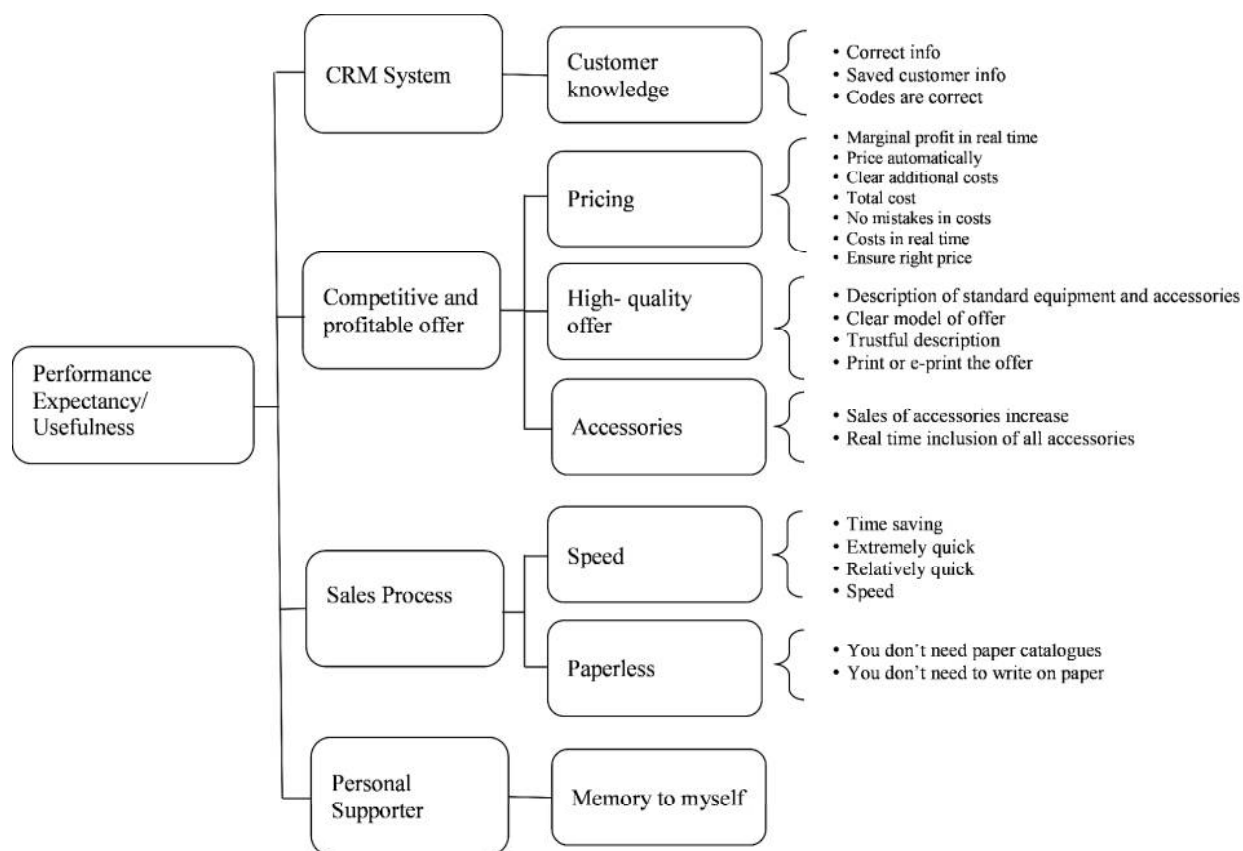
## 5. Results

### 5.1 Performance expectancy/usefulness

Performance expectancy/usefulness consisted of four higher-order themes (both competitive and profitable offer CRM systems, sales processes, and personal supporters) and seven lower-order themes (pricing, high-quality offers, accessories, customer knowledge, increased speed, paperless, and use as a memory card/drive), as shown in Figure 3. The most important determinants of usefulness were competitive and profitable offers. A sales tool enables professional pricing, improvements in accessories' sales, and high-quality offers. For instance, in pricing, salespeople can easily offer customers the correct costs in real time. When a customer receives an offer that includes all equipment and accessory descriptions, it is perceived as being of high quality, which builds trust toward the salesperson.

'Mainly, I use it as a pricing tool so that we'll see the total price right away and what equipment and accessories it includes' (Ted).

*Figure 3. Usefulness of MSCT*



Identifying a customer's needs and creation of an offer become quick processes with mobile sales tools. Offers can be immediately sent electronically to customers and/or printed. One salesperson stated:

‘This is definitely a time-saving tool’ (George).

Being a part of a CRM system and using the tool as a personal memory aid were also perceived benefits.

‘It is used as a customer data source. There is a sales program for the new and used machines . . . and once all the customer's information is saved, you can find it from there . . . when you see the different possibilities, you can also remember those’ (George).

### 5.2 Relative advantages

The sales configuration tool was perceived as being better than the idea that it presents. In this study, we sought the most important relative advantage, and it consisted of two lower-order themes: giving information for the correct tailoring and speed of use. Salespersons 1, 2, 4, 6, 7, and 9 said that the system directs you toward quality tailoring, and it is not possible to make mistakes. Another important advantage of such a tool is the quick process of providing a quotation according to a customer's requirements (salespersons 3, 5, and 8), as the following quote illustrates:

‘I would have to say, that it is the speed’ (Ted).

‘Well, when paper catalogues were used, sometimes, prices could be a little inaccurate, or it was possible to make an offer for certain characteristics and equipment that it was not possible to get. Now, there is no room for such operational errors’ (John).

‘The good thing is that this tool does not allow overlapping choices. In other words, it is built so that, in one unit, you can't choose options that do not match or leave out an option that is required for the chosen option’ (George)

### *5.3 Compatibility*

Every salesperson thought that the sales configuration tool was compatible with their work. The results were categorized into three different groups: 1) those who thought that the tool was extremely compatible, 2) those who thought that the compatibility was good, and 3) those who thought that the tool was compatible but who were also somewhat critical.

‘I think this tool is extremely compatible. It really helps in many things’ (George).

‘It is specific; I will give to it good grades. It is functional. I have no ideas that could help improve it. It's good enough’ (William).

‘I am not using any digital brochures. I just use paper brochure, if we happen to have those . . . the laptop is a little bit clumsy . . . there could be a lighter tool, perhaps a tablet or another comparable solution’ (Ted).

#### *5.4 Job performance*

Based on the salespersons’ experience, the relevancy of the sales configuration tools regarding their own performances were categorized into three lower-order themes: 1) the tool has no relevance, 2) the tool has a small effect, and 3) the tool makes a difference. Interestingly, all salespersons in the group ‘good salesperson’ (1, 2, 6, and 9) experienced positive effects from the tool, and it furthered their success. To the contrary, those in the ‘salesperson with problems’ group believed that they would be successful either without any help or with limited help from a sales configuration tool. Those who had achieved a good performance rating appreciated the relevance of using a sales configuration tool in their work. The following quotes illustrate these different views:

‘Yes, of course. If we were still calculating everything manually, there would be much more room for mistakes’ (Cliff).

‘Well, I do not know whether it has much of an effect on the results’ (John).

‘I don’t believe that. It would slow you down and increase your workload, but I really don’t believe that it (sales configuration tool) has any influence on my results’ (William).

Salespersons now have years of experience in using different models of mobile sales configuration tools. In the past, they used catalogues to demonstrate products to their customers. Almost all of the interviewed (8/9) were not willing to abandon using a mobile sales tool in favor

of a paper catalogue. Accordingly, salespersons were sub-categorized into either ‘Under no circumstances’ or ‘Well, why not?’ regarding their preference.

### *5.5 Effort expectancy/ease of use*

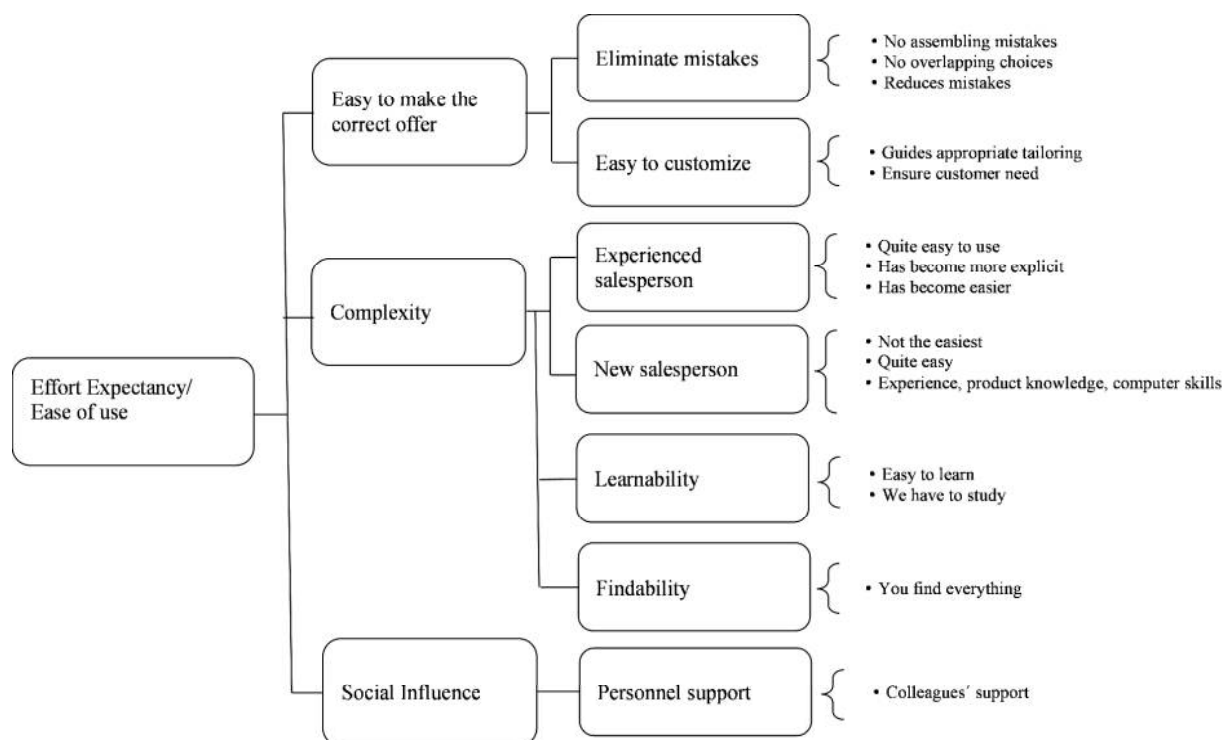
Effort expectancy/ease of use consisted of three higher-order themes: easy to make the proper offer, complexity, and social influence as illustrated in Figure 4. These themes were divided into seven lower-order themes: eliminate mistakes, easy to customize, experienced salesperson, new salesperson, learnability, findability, and colleagues’ support. With a mobile sales configuration tool, it is easy to offer a product based on a customer’s need without either overlapping choices or making mistakes:

‘In the old days, it was possible to sell features or accessories that did not match each other or would not work in combination. Now, it is not possible to make such mistakes’ (John).

Most of the salespersons found the tool quite easy to use and learn. When they considered learning the system as a new salesperson, most of them thought that it would be quite easy but felt that it would be even easier if the salesperson had experience with machines, special product knowledge, and computer skills. In addition, they found it easy to locate configuration information. The salespersons had social support from their colleagues in using the tool as well:

‘We support, support . . . I always immediately ask a colleague if he has encountered the same problem’ (John).

*Figure 4. Effort expectancy of MSCT*



The salespersons expressed their ideas regarding further improvement of the specific MSCT that they have been using as shown in Figure 5. They also discussed the possibilities of improving sales activities with social media tools. Many issues were identified, and they were coded through the higher-order themes of performance and effort expectancy. Lower-order themes concerning MSCT included new mobile devices (PE), sales support within the tool (PE), new features in software (PE, EE), and learning beforehand (EE). The mobile social media tool was divided into two lower-order themes: new social media channels (PE) and ease of communications (EE). Most of the respondents suggested a tablet as a new mobile device. The salespersons also suggested several new improvements for the sales configuration tool, such as visualization with photos, automatic text, and changing the basic model without losing already entered information.

Respondents stated the following:

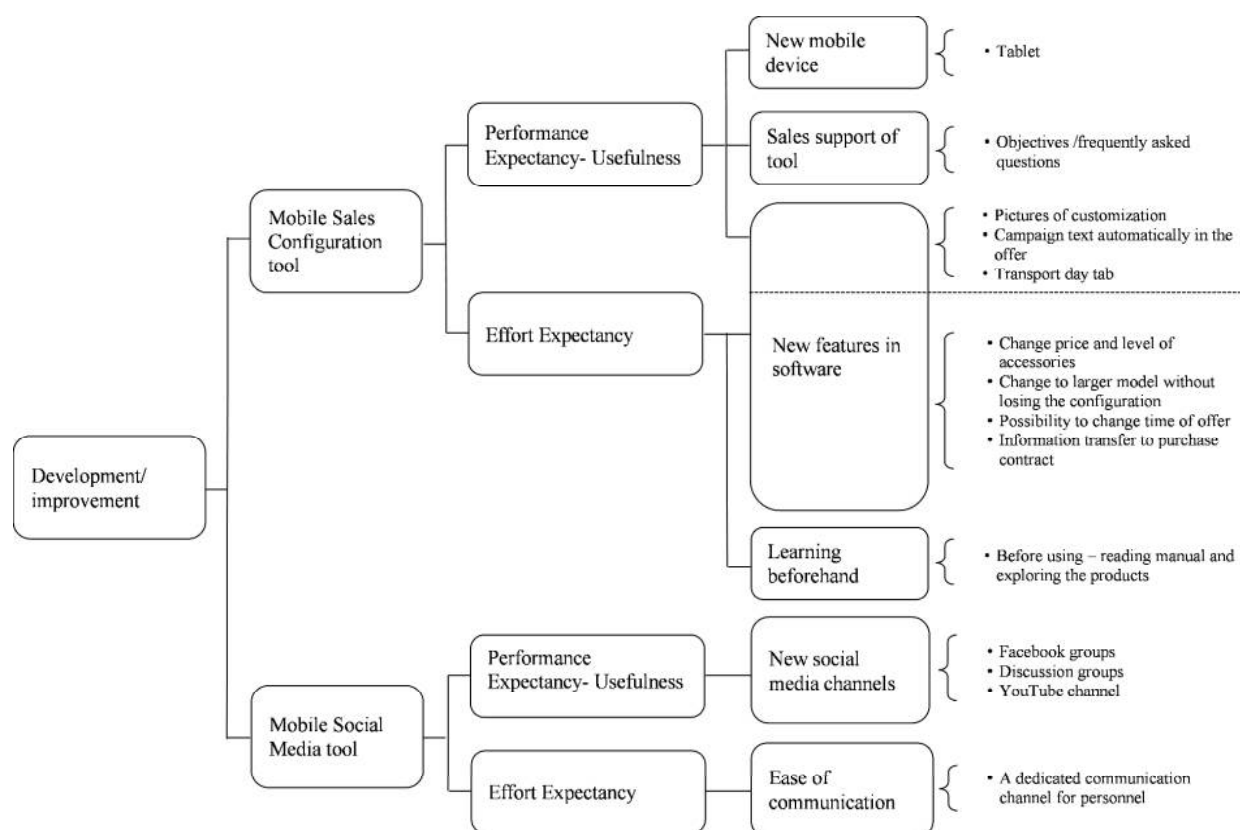
‘There are accessories on the list (visible), but the system does not show the tailored machines with the chosen accessories on the screen to the customer. It would be good idea. It could be in the color that the customer wants. Of course, it would help in the selling situation’ (George).

‘When we think about using only the configurator, email, and so on, maybe either a tablet or something similar could be a better solution that is smarter and quicker to use, especially when you want to present the product brochures. A laptop is a little bit . . . let’s say that it was once probably a pretty good idea, but it seems that this is starting to be a little bit old’ (Ted).

‘Yes, there is a need (for social media sales tools), but it then requires a commitment and continued care. You cannot just put out some information and leave it there’ (Harry).

*Figure 5. How to further develop MSCT*





### 5.6 Facilitating conditions

The company provides training for every new salesperson. According to the salespersons, the training is highly relevant to sales configuration tool adoption. The most effective training is formal and provided by the company. Similarly, *Learning by Doing* (LbD) in their work is an important driver that helps adoption, along with colleague support. The participants also mentioned that regular training is needed after either a new product release or an update because these actions change the functionality of the configuration tool. All participants agreed that technical support has been available through the helpdesk system and occasionally from superiors. It is important to obtain immediate help if problems occur in the configuration; however, these problems are rare. Regarding the need for technical support, one interviewee said the following:

‘There is a little bit of need for technical support, but help is received whenever needed. Mainly through the helpdesk’ (William).

### *5.7 Personal innovativeness*

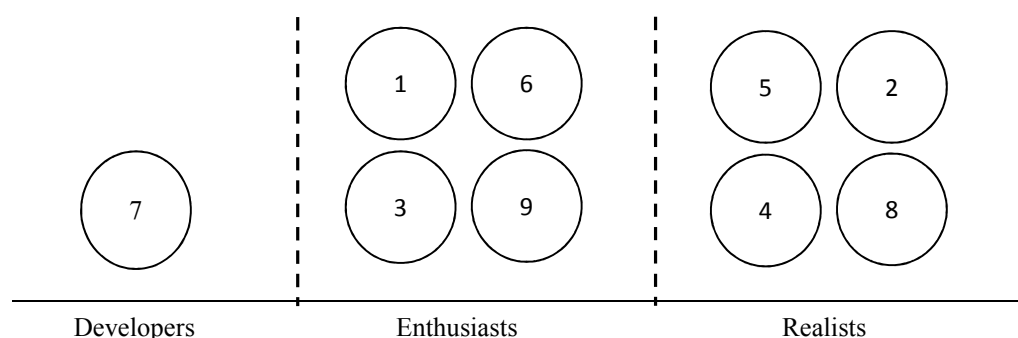
The salespersons evaluated their own personal innovativeness in adopting a new mobile sales tool in their work. Based on the research data, the salespersons were divided into three groups and were named as developers, enthusiasts, and realists, respectively as shown in Figure 6. Developers were extremely positive and interested in new tools. They also offered new ideas about how to develop sales tools and how to utilize social media in sales. Enthusiasts were quite interested in new sales tools. Their attitude toward new things was positive, and they had good self-confidence. Realists lacked interest in new mobile tools; however, they wanted to have enough understanding to be able to use the tools in their work. They adopted tools at a slower rate than their peers because they lacked confidence in using technological tools. The following quotes illustrate these types:

‘I am very interested in new tools. I am not the most talented, but I am interested in everything. I have my own tablet with me sometimes . . . managers are a little bit old fashioned . . . and on Facebook, we talk about those machines, and I think it’s very good because you can participate in discussions’ (Elton, developer).

‘Well yes. If the job is always evolving, you are pleased to use them . . . there is an e-mail function on the smartphone, and the camera is good enough for the taking a picture of the customer’s old machine . . . in the evenings, I follow the machine sellers’ Facebook group. It is constantly updated. I do not know if it’s the best channel, but it seems so’ (Noel, enthusiast).

‘I’m not very interested in technical tools. Yes, I have figured out that it’s necessary to be somewhat interested or otherwise you drop out. I’m not a friend of the computers, and I do not use social media much’ (Sam, realist).

*Figure 6. Personal innovativeness of participants based on self-evaluation*



### 5.8 Risks

Salespersons do not experience any major risks from using a mobile sales configuration tool. The minor risks were divided into five lower-order themes: 1) no risks, 2) technical risks, 3) risks from outside, 4) problems in programming, and 5) the salesperson’s own mistakes (Table 3). Risks were combined into three higher-order themes: social (number 3), human (number 5), and technical (numbers 2 and 4). Based on their experience, the greatest potential risks were technical faults. Notably, there were no risks with either wireless connection or quality of information. The following perceptions of risks provide insights into the salespersons’ reality:

‘It happened once when I was with a customer. The gadget got stuck, and then I had to stop the configuration’ (Cliff).

‘Yes, when a new model came out, in the configuration tool, there were a few odd things. For example, it was possible to choose an air conditioner and add another air conditioner with a heater function’ (Noel).

‘Yes, it is by far the most expensive solution, and there is a hell of a risk. The fact that we instantly changed these prices in the tool . . . purchase prices changed without including tax. Quite often, the farmer stands beside you chatting and asking many questions, and you can get distracted and forget to add value added tax on top of the price’ (Sam).

*Table 3. Experience of risks in using MSCT*

Lower-order themes	Higher-order themes	Risks
1		No risks
2	Technical (tool related)	System does not save the changes
		Problems with the portable printer
		Missing data connection
		Technical breakdown
		Computer freezes
3	Social	If a customer sees a marginal profit
		Stolen passwords and computers
4	Technical (not tool related)	Tailoring an infeasible machine
		Missing information on a new machine model in the system
		Minor mistakes in pricing
5	Human	Not including the VAT in the price

Salespersons were asked about their usual sales routines and whether they make an offer at the office after visiting with customers or instantly after configuring the product during visits to farms. If they did not follow similar routines, they were asked to explain their procedure and provide estimates. Two of the salespersons made offers either always or nearly always while at the farms (6 and 9), see Figure 7. These salespersons were the best performing sellers, which

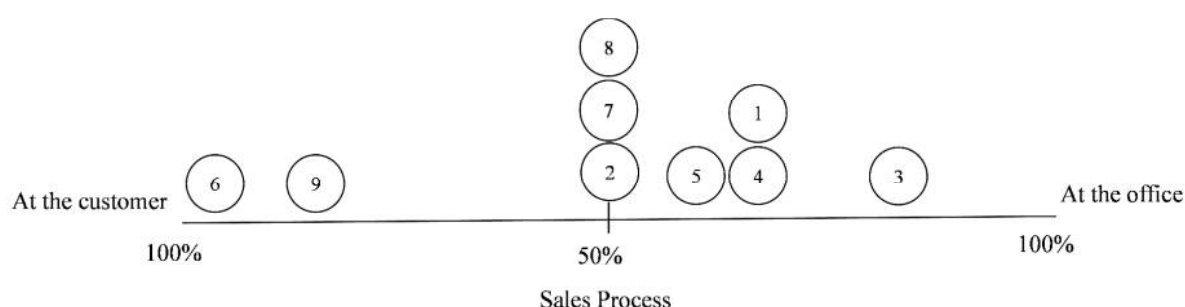
indicates that, when the MSCT mobile configuration tool was used and a tailored offer was made immediately, the customer was more likely accept the offer, as the following quotes illustrate:

‘Well, sure, if we visit a customer, the offer is always made and printed out for the customer’ (Noel).

‘Well, yes, it depends, and both ways are followed. Maybe fifty-fifty . . . it (tailored customer configuration) will always at some point be transferred into the system’ (Elton).

‘I prefer sending an offer via e-mail in a proper PDF format versus printing it with the portable printer. Printing is (more or less) like messing around . . . sometimes the customer has time and we configure at the farm, but usually I prepare it at my office. I would say that 80% of the configurations I make at the office without the customer’ (Ted).

*Figure 7. Where to configure and offer a product to a customer in the sales process*



## 6. Discussion and conclusion

The objective of this article was twofold: 1) to study B2B salespersons' experiences of adoption and use of a mobile sales configuration tool (MSCT) and 2) to offer a conceptualization of its acceptance. This study provides insights into salespersons' MSCT usage experiences in sales activities. By studying SFA literature thoroughly the determinants of SFA acceptance and usage

were identified, most frequently used models, theories and constructs in SFA studies were studied. Based on the findings TAM/TAM2, UTAUT, and IDT were chosen as a theoretical framework for current study along with additional constructs from various past SFA studies. Objectives of the study have been achieved and the main findings can be summarized as follows:

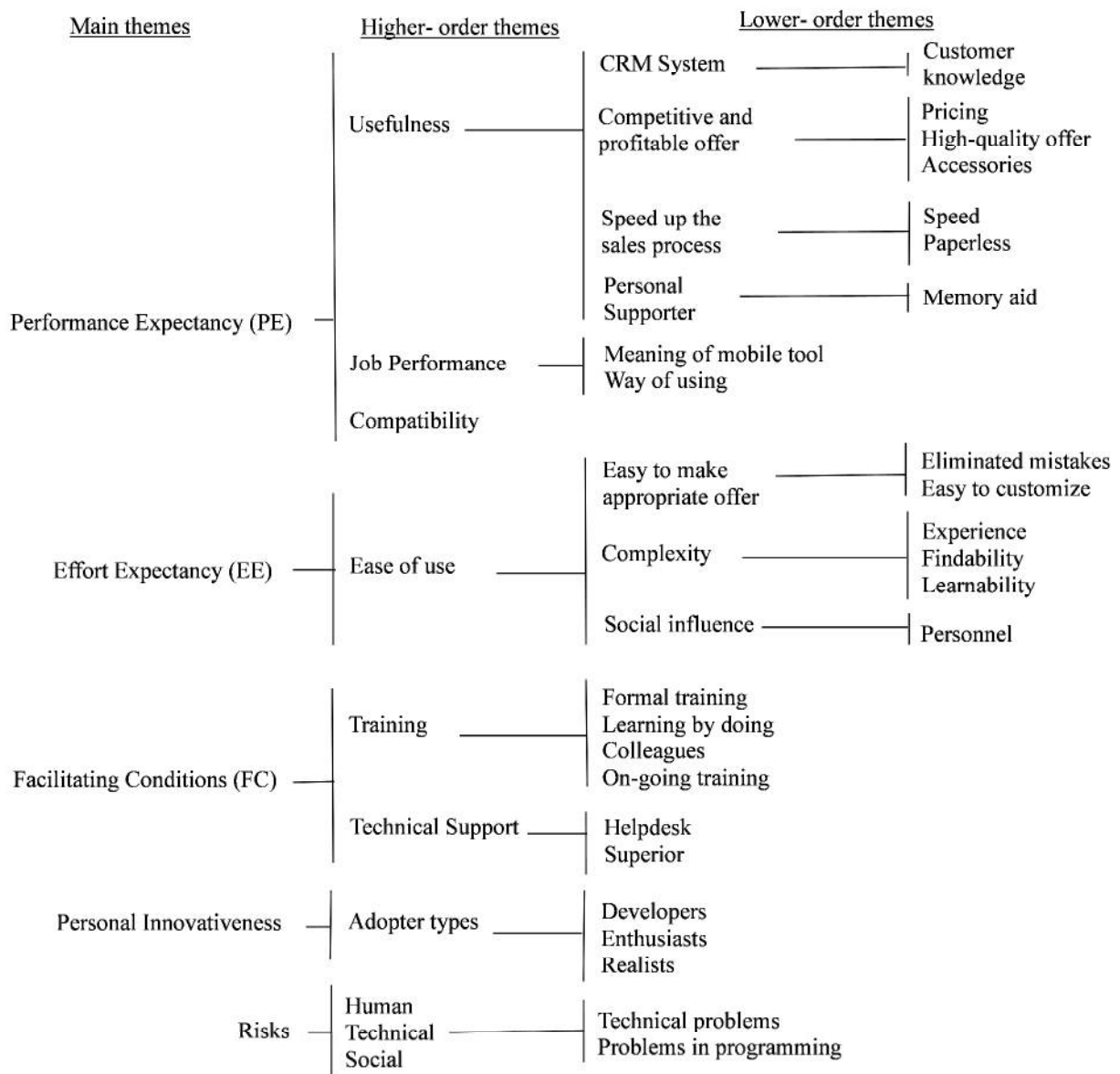
- 1) MSCT is useful and easy to use;
- 2) the tool is excellent in customizing the end-product;
- 3) with the tool, it is easy to make competitive and profitable offers;
- 4) the tool affects performance;
- 5) training is important in adoption of the tool;
- 6) there are different types of salespersons, according to personal innovativeness;
- 7) experience of risks were minor and were mainly technical;
- 8) there was a need to alter the mobile device.

The findings of the current study are consistent with previous similar studies. For example, Jones et al. (2002) and Robinson et al. (2005) found that usefulness is an important determinant of technology acceptance.

A surprising result was that salespersons used MSCT differently, and there was no precise determined sales routine among the salespersons. Therefore, there were those who used digital tools to the largest extent and provided an offer immediately after discussing customization while visiting customers on farms. These salespersons had the best performance, which indicated how using the tool influenced a salesperson's performance. This was in line with Boujena et al. (2009), who found that SFA systems increase sales productivity.

Our study makes a significant theoretical contribution to technology acceptance and mobile SFA research by suggesting possible determinants of MSCT adoption as shown in Figure 8. For example, the main determinants of usefulness (performance acceptance) are a competitive and profitable offer, a relevant CRM system, a quicker sales process, and personal support. The main determinants of ease of use are ease in correct usage (eliminate mistakes, easy to customize), complexity (experience, learnable, findability), and social influence (personnel).

Figure 8. Main determinants of adoption of MSCT



### 6.1 Managerial implications

We suggest that the findings of this study have many important implications for managerial practice. Firstly, mobile sales configuration tools are obviously useful in sales activities and should be further developed. For instance, the interviewed participants stated that they would like to illustrate customized machines with images.

Secondly, sales management should develop a common sales routine for all salespersons. This routine should instruct personnel on how configuration should be used to increase sales. The results of this study show that a successful deal is more likely when an offer is made right after discussing the details of the product with the client.

Thirdly, experienced salespersons should mentor new salespersons. This will help new salespersons learn to use the sales configuration tool effectively and gain knowledge from experienced colleagues.

Fourthly, social media channels should be established so that salespersons can interact with each other, share their experiences, provide solutions, and ask questions. This can be managed by the company, and participation can be motivated by various company promotions, offers, and programs.

Fifthly, management should consider the different personalities and levels of innovativeness of salespersons when making relevant decisions. For instance, those with innovative personalities can provide ideas for further development of mobile sales tools.

Finally, our findings indicate that it is important that product configuration is conducted only after an in-depth discussion of the customer's needs and requirements rather than basing it on a first phone call or an early idea.

### *6.2 Limitations and future research*

The current study has certain limitations that should be considered in future studies. First, the analysis was based on a small number of participants (nine salespersons). Therefore, the results cannot be generalized in other contexts. Second, social desirability might have affected the results in a way that caused the salespersons to have been tempted to talk positively about



MSCT, especially because machine and farming machinery sales were slow when interviews were conducted. However, salespersons were also open minded and critical, as the quotations demonstrated.

This study can serve as pathway toward understanding of MSCT adoption and usage. If findings were to be inferred to a greater population, a quantitative study would need to be pursued. Many opportunities are available for future studies to build upon the current one and its findings. It has opened new avenues as a source of hypotheses for a quantitative analysis of certain phenomena, such as the correlation between using a mobile sales configuration tool and sales performance. A similar study could also be conducted in different countries to examine how culture affects sales configuration and mobile tool adoption.

### *6.3 Conclusion*

This study aimed at examining salespersons' experience of adoption and usage of mobile sales configuration tools at work and offering conceptualization of adoption. In the light of SFA literature theoretical framework and method for the study were developed. Data analysis was based on Tuomi and Sarajärvi's (2003) content analysis and Braun and Clarke's (2013) Stages of Thematic Analysis. Findings of the study offered insights into salespersons' MSCT usage experiences in sales activities and main determinants of MSCT adoption were identified. This work may be further extended by conducting similar study with greater sample and in different contexts. Also, it may be conducted in a cross-cultural setting in order to examine effects of cultural factors in usage and adoption of MSCT.

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