Dedication

This dissertation is dedicated to my beloved father

Eng. George WadieKarma

Who has been a source of encouragement and inspiration to me throughout my life.Since the very beginning he taught me how to realize the importance of education.

Dad; you have actively supported me in my determination to find and realize my potential, and to make this contribution to our world.

Also I dedicate my efforts to my mother, **GeorgetteNakhla**Whorepresented to me 'living proof' of women's ability to redefine and recreate our lives,

To my dear husband, **George Victor** and my beloved kids **Kirollos**and **Madonna** who remains willing to engage with the struggle, and ensuing discomfort, of having a partner/mum who refuses to accept the given role of the woman and is actively engaged in redefining and redesigning that role.

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ABSTRACT

The main objective of this study was to examine the moderating effect of situational factors as well as the influential factors that affect the consumers' intention to adopt a self-service technology (SST) taking mobile banking as an example, drawing on the information systems use and acceptance literature.

Specifically, this study addressed several sub-objectives such as 1) to explore the determinants of mobile banking adoption among Sudanese; 2) to examine the effect of service quality dimensions (reliability, responsiveness, efficiency, and convenience) on the Sudanese's intention to adopt mobile banking service; 3) to measure the effect of TAM constructs (perceived usefulness and perceived ease of use, perceived trust and perceived risk) on Sudanese's intention to adopt mobile banking services; 4) to explore the effect of subjective norms (descriptive norms and injunctive norms) on Sudanese's intention to adopt mobile banking services; and finally 5) to test the moderating effect of situational factors (waiting time and task interruption) on the relationship between the main the independent variables (service quality dimensions, TPB constructs, and TAM-related constructs) and dependent variable (behavioral intention).

By using the stratified random sampling procedure, this study collected the data from 349 customers of mobile banking services provided by Faisal Islamic Bank and Al-Salaam Bank who were the only two banks applying the service during the data collection period, the customers had participated and filled the questionnaires measuring the underlying factors that contribute to the respondents' behavioral intentions to adopt mobile banking services as well as the moderating effect of situational factors.

This study presented nine main hypotheses with several sub hypotheses to test the proposed conceptual framework of mobile banking adoption and its predictor and moderators. All hypotheses were tested with multiple regression analysis, controlling for demographic factors such as age, gender, education, experience with the banking, as well as experience with the mobile banking.

Among the TAM related constructs, perceived ease of use, perceived usefulness and perceived risk had significantly contributed towards mobile banking adoption among the participants of this study. Perceived usefulness was not a predictor of the dependent variable. It is notable here also that perceived risk negatively predicted the adoption, which means that the higher the risk associated with the usage of the technology, the less likely that the consumers adopt the service. However, the effect of other potential influencers were controlled such as gender, age, education, experience with the banking and experience with mobile banking and were found to have minimal effect on the dependent variable. This indicates that the predictors accounted for the majority of the variance in behavioral intention.

Subjective norms dimensions such as descriptive norms and injunctive norms were found to have no significant contribution towards the adoption of mobile banking among the consumers in the country. In addition, the control variables were not predicting the dependent variable, which means that they have influence on how people adopt the mobile banking technology. Therefore, this findings suggests that significant others or peers have no influence on the participants of this study to adopt mobile banking technology, which don't consider it as a motivating factors towards adoption.

Two dimensions of service quality namely reliability and efficiency had significantly contributed towards participants' behavioral intention of adopting mobile banking technology. Convenience dimension did not exert any effect on the adoption process among the participants, which means that they don't care about whether the service usage is convenient or not, but they are more concern that the

service should be efficient and reliable. Another dimension (responsiveness) has been eliminated during validation process due to its failure to meet the minimum standard criteria.

The study was also interested to test the moderating effect of situational factors on the relationship between independent variables and dependent variable. Using hierarchical regression analysis, the results suggested that there were no moderating effects for the majority of hypothesized relationships except the relationship between efficiency and behavioral intention which was negatively and significantly moderated by task interruption. This indicates that the more participants taskhigher interruption, the less likely to adopt mobile banking technology. On the other hand, situational factors such as waiting time and task interruptiondid not improve or reduce the relationship between the independent variables and dependent variable, which means that these independent variables contribute to behavioral intention without any need for interacting effects from other factors.

المستخلص

الهدف الاساسي من هذا البحث هودراسة ابعاد جودة الخدمة ، المعايير الشخصية و نموذج تقبل التقنية كمحددات لتبني تقنية الخدمة الذاتية ،متناولةً خدمة الهاتف المصرفي كمثال لتقنيات الخدمة الذاتية ، مع دراسة الدور المعدل للعوامل الموقفية و ذلك استناداً على المعلومات التي تم بحثها عن استخدام نظم المعلومات في الدراسات السابقة .

الدراسة قامت بتحديد عدة اهداف فرعية مثل 1) معرفة محددات تبني خدمة الهاتف المصرفي في المجتمع السوداني. 2) دراسة اثر ابعاد جودة الخدمة (الموثوقية – سرعة الاستجابة – الكفاءة – الملائمة) على تبني الخدمة . 3) قياس اثر مكونات نموذج قبول التقنية (الاستفادة – سهولة الاستخدام – الموثوقية – المخاطرة) على مدى تبني السودانيين لخدمة الهاتف المصرفي 4) معرفة اثر المعايير الشخصية (المعايير الوصفية – المعايير الدخيلة) على تبني خدمة الهاتف المصرفي و اخيراً 5) دراسة الدور المعدل للعوامل الموقفية (زمن الانتظار – تذبذب الخدمة) على العلاقات بين المتغيرات المستقلة و المتغير التابع .

باستخدام العينة العشوائية تم جمع المعلومات من 349 عميل بنكي من بنك فيصل الاسلامي و مصرف السلام حيث كانو هم البنوك الوحيدة التي تقدم الخدمة في وقت جمع المعلومات للدراسة . افترضت الدراسة 9 افتراضات رئيسية بحسب الاطار النظري للبحث و ذلك لدراسة محددات تبني الخدمة و الدور المعدل لتبني خدمة الهاتف المصرفي .

مكونات نموذج قبول التقنية (TAM) كان هناك اثر لسهولة الاستخدام و الموثوقية و المخاطرة على تبني الخدمة لدى السودانيين و تجدر الاشارة هنا الى العلاقة السالبة بين المخاطرة و تبني الخدمة اي كلما زادت المخاطرة كلما قل احتمال تبني الخدمة . ايضا توصلت الدراسة الى انه لايوجد اي اثر للاستفادة على تبنيخدمة الهاتف المصرفي .فضلاً عن ذلك تم تحكيم العلاقة بين المتغير المستقل و المتغير التابع عن طريق بعض العوامل الديموغرافية مثل النوع و

السن و المستوى التعليمي و الخبرة مع البنوك و الخبرة مع خدمة الهاتف المصرفي و لكن لم يغير التحكيم في النتائج

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ابعاد المعايير الشخصية (المعايير الوصفية – المعايير الدخيلة) لم يكن لها اي اثر على تبني الخدمة لدى السودانيين حيث لم تكن تلك المعايير بمثابة حافز لدعم فكرة تبني خدمة الهاتف المصرفي .

اثنين من ابعاد متغير جودة الخدمة كانت لهم المساهمة الاكبر في التاثير على تبني الخدمة و هم الموثوقية و الكفاءة ، اما الملائمة فلم يكن لها اي دور فعال لدي المشاركين اي لم يكن من الضروري ملائمة الخدمة لديهم. اما البعد الرابع و هو سرعة الاستجابة فقد تم استبعاده منذ المراحل الاولى للتحليل العاملي للمتغيرات فضلاً عن ذلك تم تحكيم العلاقة بين المتغير المستقل و المتغير التابع عن طريق بعض العوامل الديموغرافية مثل النوع و السن و المستوى التعليمي و الخبرة مع البنوك و الخبرة مع خدمة الهاتف المصرفي و لكن لم يغير التحكيم في النتائج .

اهتم البحث ايضا بدراسة الدور المعدل للعوامل الموقفية على العلاقات بين المتغيرات المستقلة و المتغير التابع و توصلت الدراسة الى انه لا يوجد اي تاثير لها على الاغلبية العظمى من الفرضيات ماعدا الدور المعدل لتذبذب الخدمة على العلاقة بين بعد الكفائة في متغير جودة الخدمة و المتغير المستقل (تبنى خدمة الهاتف المصرفي) ، بمعنى انه كلما زاد تذبذب الخدمة كلما قل احتمال تبني الخدمة . فيما عدا ذلك لم يكن هناك اي دور معدل لكلا ابعاد العوامل الموقفية و هم زمن الانتظار و تذبذب الخدمة بمعنى ان المتغيرات المستقلة تؤثر مباشرة على المتغير التابع بدون اي تدخل لاي من تلك العوامل الموقفية .