Identify factors contributing increasing the use of POS in agricultural bank of Iran

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ABSTRACT: *The Current study,Aims to identify, prioritize and compare effective factors on the use of POS in terms of receiver in different guilds. considering the importance of the subject and The crucial role of POS in absorbing the resources for banks and On the other hand no need of huge investments and also To improve the current poor state of POS devices and of course the poor state in research works (And other benefits from using POS), we tried in this research to point out the effective factors on the use of POS in the viewpoint of the receivers and of course pointed out to the importance of each indices and the way their prioritization are in an general mode and in each separate guilds. Research findings show that Factors Affecting the Use of POS,As a whole, Can be divided into 5 main dimensions which are Factors related to the device / receiver factors / factors related to banks / factors related to sponsors / incentives.Factors related to the device are separated To 3 sub dimension: Qualitative characteristics of the device,the appearance of the device and economical use of the device. And factors related to the Bank are separated to 3 Sub dimension: Bank brand image, customer-oriented feature of the bank and Access to the bank.*

KEYWORDS:*electronic banking, electronic payment, POS, receivers*

I.INTRODUCTION

This research delivers web service architecture for integration of Point of Sale (POS) terminals with financial institutions. Businesses are interested in the freedom that this may offer because vendors can select payment providers from all over the world to find the best fee and services .With the conventional POS payment transaction method, vendors are bound to a payment institute in their region and can only use relatively expensive dedicated or slow dial-up lines to their financial institute. To design a web service,structure is needed to implement and support the system. For this,architecture will be provided in this report.Different sources describe the needs of business for integration and the use of architecture.OMG (www.omg.org) describes the needs in a RFI (Request for Information),especially the endorsements in the document. Via the RFI,OMG asks their working group what they like to see in the standard architecture (Knight, Linda, 2001).

The next section will describe the research methodology of the project.After, the literature review describes the conventionally payment processing method,web services and architecture frameworks with significant attention. Following good information systems practices, this paper will describe the architecture and the prototype with system's specification and design, implementation,test and evaluation.The last section expresses the conclusions and future research (Humphrey, David, 2003).

The **point of sale** (**POS**) is the time and place where a retail transaction is completed.It is the point at which a customer makes a payment to the merchant in exchange for goods or after provision of a service (Kong, Xiaoying and Liu, Li, 2004).At the point of sale,the merchant would prepare an invoice for the customer (which may be a cash register printout) or otherwise calculate the amount owed by the customer and provide options for the customer to make payment. After receiving payment,the merchant will also normally issue a receipt for the transaction.Usually the receipt is printed, but it is increasingly being dispensed electronically (Kruchten, Philippe, 1995).

II.RESEARCH METHODOLOGY

Since the study is a research that combines qualitative and quantitative data from two sets of connection, and in order to determine the factors influencing the uses of Point of sale considering receiver of selected guilds, the qualitative data collected through reviewing of the literature of the research and also through having interview session with receivers.According to The qualitative data from this phase,54factors were identified as an effective indicator of the Point of sale as a whole. These factors were classified to 9 main factors and 9 sub factors which they are summarized in Table 1.The population in this study ()Either in qualitative or in quantitative phase) are the receivers of Point of sale (devices POS), in each of the guilds of clothing, household appliances and gold merchants in Tehran.According to the investigation and the importance of the interview process in extracting Effective index on the use of Point of sales, in the qualitative section, for each clothing, jewelry and household appliances guilds 10 receivers were selected for open and in-depth interviews. In other words, a total of 30 people were interviewed and 460 questionnaires were distributed in quantitative phase.

III.DESCRIPTIVE STUDIES(INTERVIEW)

Of the 10 participants in the interviews conducted in the classroom clothing, Oneperson to 25 to 50 % of daily sales (10%), 8 people to 50 to 75 % of daily sales (80(%And a people more than 75 %of daily sales have pointed out using POS devices.Of the 10 participants in the interviews conducted in the gold guilds , 4people to more than 75 %of daily sales ((40 %And 6peopleto 100 %of daily sales (60%) have pointed out using POS devices.Of the 10 participants in the interviews in the guild appliances,4 people from 50 to 75 %of daily sales (40%) and 6 peopleto more than 75 %of daily sales (60 %) mentioned that they used the POS.

Table 1: factors contributing increasing the use of POS

factors contributing increasing the use of (POS)	
The Subsidiary Factors	The main factors
Deposit Services	Banking services
Money transfer	
Information	
Payment Services	
Physical features	The device features
Technology features	
-	Factors infrastructure
-	Factors relating to the acceptor
-	Influence and impact others
Brand Image Bank	Factors related to the Bank
Customer-oriented bank	
Access to the bank	
-	Factors customer
-	Factors related to support companies
-	Encouragers

IV.RESULTS

Average important test results in Table 2 are shown for Union of clothes.

Table 2: Average important test resultsfor Union of clothes

Status of variable	T-statistics	Sig	Mean difference	Variable
Effective in use of the POS machine	6.778	0.000	0.4699	Banking services
Effective in use of the POS machine	4.748	0.000	0.3935	Deposit Services
Effective in use of the POS machine	10.841	0.000	0.6354	Money transfer
Effective in use of the POS machine	4.010	0.000	0.3680	Information
Effective in use of the POS machine	4.558	0.000	0.3328	The device features
Effective in use of the POS machine	3.604	0.000	0.3055	Physical features
Effective in use of the POS machine	4.293	0.000	0.3414	Technology features
Effective in use of the POS machine	7.246	0.000	0.5746	Factors infrastructure
Effective in use of the POS machine	3.830	0.000	0.3333	Factors relating to the acceptor
Effective in use of the POS machine	6.298	0.000	0.4370	Factors related to the Bank
Effective in use of the POS machine	4.984	0.000	0.3817	Brand Image Bank
Effective in use of the POS machine	4.037	0.000	0.2986	Customer-oriented bank
Effective in use of the POS machine	7.661	0.000	0.6388	Access to the bank
Ineffective in use of the POS machine	-9.521	0.000	-0.6631	Factors customer
Effective in use of the POS machine	4.619	0.000	0.2617	Factors related to support companies
Effective in use of the POS machine	8.232	0.000	0.3724	Encouragers

Average important test results in Table 3 are shown for Union of gold.

Table 3: Average important test results for Union of gold

Status of variable	T-statistics	Sig	Mean difference	Variable
Effective in use of the POS machine	13.740	0.000	0.6604	Banking services
Effective in use of the POS machine	14.498	0.000	0.6990	Deposit Services
Effective in use of the POS machine	13.149	0.000	0.9938	Money transfer
Effective in use of the POS machine	4.191	0.000	0.2530	Information
Effective in use of the POS machine	13.705	0.000	0.5644	The device features
Effective in use of the POS machine	15.353	0.000	0.5891	Physical features
Effective in use of the POS machine	10.048	0.000	0.5444	Technology features
Effective in use of the POS machine	12.126	0.000	0.7392	Factors infrastructure
Effective in use of the POS machine	2.213	0.000	0.1790	Factors relating to the acceptor
Effective in use of the POS machine	4.317	0.000	0.2777	Factors related to the Bank
Effective in use of the POS machine	8.710	0.000	0.4613	Brand Image Bank
Effective in use of the POS machine	6.510	0.000	0.3793	Customer-oriented bank
Effective in use of the POS machine	5.079	0.000	0.3919	Access to the bank
Effective in use of the POS machine	8.122	0.000	0.5277	Factors customer
Effective in use of the POS machine	7.841	0.000	0.3569	Factors related to support companies
Effective in use of the POS machine	13.439	0.000	0.5010	Encouragers

Average important test results in Table 4 are shown for Union of Home Appliances.

Table 4: Average important test results for Union ofHome Appliances

Status of variable	T-statistics	Sig	Mean difference	Variable
Effective in use of the POS machine	10.893	0.000	0.5735	Banking services
Effective in use of the POS machine	10.229	0.000	0.5600	Deposit Services
Effective in use of the POS machine	9.270	0.000	0.7792	Money transfer
Effective in use of the POS machine	2.815	0.000	0.2922	Information
Effective in use of the POS machine	4.420	0.000	0.4480	The device features
Effective in use of the POS machine	14.836	0.000	0.7439	Physical features
Effective in use of the POS machine	10.214	0.000	0.4365	Technology features
Effective in use of the POS machine	11.317	0.000	0.6311	Factors infrastructure

Effective in use of the POS machine	9.885	0.028	0.5746	Factors relating to the acceptor
Effective in use of the POS machine	13.697	0.000	0.5376	Factors related to the Bank
Effective in use of the POS machine	7.704	0.000	0.4192	Brand Image Bank
Effective in use of the POS machine	6.866	0.000	0.4064	Customer-oriented bank
Effective in use of the POS machine	3.502	0.000	0.3019	Access to the bank
Effective in use of the POS machine	3.187	0.000	0.2727	Factors customer
Effective in use of the POS machine	3.647	0.000	0.2813	Factors related to support companies
Effective in use of the POS machine	11.944	0.000	0.4422	Encouragers

In addition to the main factors, 9 sub-factors were evaluated.Therefore, in this section, the amount of being effective and not being effective on the use of POS devices will be examined separately.Table 5 summarizes the test results,average of importance in order To identify the main effective factors and sub-factors on the use of POS devices from the perspective of receivers in selected guilds.

Table 5: factors contributing increasing the use of POS

Status of variable			Variable	Variable class
Home Appliances	Gold	clothes		
Effective	Effective	Effective	Banking services	Main
Effective	Effective	Effective	The device features	Main
Effective	Effective	Effective	Factors infrastructure	Main
Effective	Effective	Effective	Factors relating to the acceptor	Main
-	Effective	Effective	Influence and impact others	Main
Effective	Effective	Effective	Factors related to the Bank	Main
-	-	Ineffective	Factors customer	Main
Effective	Effective	Effective	Factors related to support companies	Main
Effective	Effective	Effective	Encouragers	Main
Effective	Effective	Effective	Deposit Services	Subsidiary
Effective	Effective	Effective	Money transfer	Subsidiary
Effective	Effective	Effective	Information	Subsidiary
Effective	-	-	Payment Services	Subsidiary
Effective	Effective	Effective	Physical features	Subsidiary
Effective	Effective	Effective	Technology features	Subsidiary
Effective	Effective	Effective	Brand Image Bank	Subsidiary
Effective	Effective	Effective	Customer-oriented bank	Subsidiary
Effective	Effective	Effective	Access to the bank	Subsidiary

According to interviews with receivers in the clothing guilds, 9factors as the main factors were identified on the use of POS in this guild.As it can be seen in Table5, out of 9 factors, 8 of themwere approved as effective. And only "factors related to the customer" considered unimportant among the receivers in the guilds on using POS devices. However,"factors related to the customer" was mentioned in interviews of Guild clothing; and somehow this factor was specific to this guild;however,the average single-sample test results show that the factor should be removed from the analysis. Therefore, it can be considered that following factors on the use of POS in the clothing guilds:

Banking services / features of the device / platform parameters / factors considering receiver / influence and the effects of others / factors related to banks / / factors related to support companies / incentives.

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