The Factors Impact on the Service Quality of People's Credit Funds: The Case of Mekong Delta River in Vietnam

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Abstract

The paper used results of the survey of 100 clients from 24 PCFs in 3 provinces in the Mekong Delta River in Vietnam. By applying Explanatory Factor Analysis methodology, the result of study showed that tangibles (TAN), responsiveness (RES), reliability (REL), assurances (ASS), and empathy (EMP)affecting to the service quality of PCFs in Mekong Delta River in Vietnam. The research found that PCFs' service quality would be increased if their empathy and tangibility improved. Then, PCFs' managers should pay more on creating incentives for credit officers to improve their sympathy and understanding customers needs as well as enhancing appearances of PCF staffs and transaction offices.

Keywords: PCFs, EFA, Performance, service quality

1. Introduction

People's Credit Fund (PCF) is a model of credit cooperatives. . It is an important component of the financial system not only in developed countries but also in developing countries like Vietnam(Hesse & Cihak, 2007, Le Thanh Tam, 2008). The importance role of this system has also been evaluated in a number of specific studies (Cuevas and Fisher, 2006).To focus on the financial aspects, corporate governance and financial situation of financial cooperatives, Cueva and Fisher (2006) emphasizes the relevance of financial cooperatives for economic growth and poverty reduction in developing countries.

In Vietnam, PCFs system in every commune has contributed to the development of rural finance by financial service for the poor and household (Dao Van Hung, 2007). But, besides that, the service quality of the PCFs were influenced by many factors including positive and negative effect. Realizing these factors will help PCF to improve their competitiveness in the rural area. Mekong Delta River area locates more than 150 PCFs who serve more than 15 percent of rural credit market in Vietnam. Improving the quality of these PCF will support strongly for the rural households and SMEs in this area in Vietnam. The Mekong River Delta is the Economics and Population Center of Vietnam. The farmers need to modernize or upgrade their production lines, decrease risk and diversify revenues in agriculture production to keep the living and contribute to the economic growth. It requires a huge demand of capital raising . However, difficulty in accessing the formal credit led farmers in the Mekong River Delta to get informal funds. Increasing efficiency in operating activities of PCF in Mekong River Delta will bring positive effects to improve the regional economy and raise the quality in financial services in rural area of Vietnam.

Therefore, the main purpose of the paper is to apply explanatory factor analysis (EFA) to find out the factors impact on the service quality of PCFs in Mekong River Delta. To get in-depth analysis the performance of PCF in Mekong River Delta, internal factors are choosen as independent variables. The representations of each group – average of all factors in this group with the variable names: REL, RES, TAN, ASS, and EMP. The dependent variable PER: The performance of the PCF in Mekong Delta area. After studying and reviewing the relevant documents, it could be seen that at present almost no in-depth study about the effectiveness of the PCF/model financial cooperatives around the world and Vietnam. The analytical performance in Vietnam seems to only be done at the agency responsible for inspecting and monitoring. The activities of the PCF as the supervisory agency of the State Bank, Insurance Money Vietnam and sent the PCF itself. So far there is no specific research on customer satisfaction /members for service

quality by PCF/financial cooperative providing world and Vietnam. Since, the service quality of PCFs in the Mekong River Delta was selected for space research.

Therefore, by the regression model, some impacts and evaluate PCF performance will find out, and then, to assess the current satisfication of PCF's customers and finally propose some solutions to help improveing PCF service qualityin Mekong Delta River area in Vietnam. The objectives of the paper include:

a. To get in-depth understanding on the performance of PCFs in Mekong River Delta area in Vietnam;

b. To determine factors impacting on performance of PCF in Mekong River Delta area in Vietnam;

c. To test the exlainatory factors determine service quality of PCFs in this area;

d. To evaluates operational efficiency and draws out some implications to enhance the effectiveness of PCFs in this area.

The paper consists of five sections. After the introduction, part 2 focuses on the literature review. Methodology and analysis on the EFA and findings are presented in part 3 and 4 of the paper, while the some policy implications and conclusions are suggested in the part 5.

2. Literature Review

2.1 PCF Performance and Its Role in the Economy

The definition and model of Microfinance institutions

Microfinance institutions (MFIs) have existed since late 19th century worldwide, with the establishment and legal formalization of microfinance institution of Desjad in Canada in 1990 (Gaboury & Quirion, 2005). The model was given different names such as microfinance institution, credit society, financial co-operatives... However, the most general definition of such model is financial co-operatives with the typical characteristic that its owners, with absolutely no intended pursuit of profitability, provide diversified financial services (including credit, saving and other services) to its members. A financial co-operative may serve different members worldwide, who may belong to different social groups, fostering them to have their own financial organizations and create opportunities to launch small business enterprises, develop farms, build homes and educate children (Schaars (1973), Zeuli & Cropp (2004), Woccu (2010)).

According to Fisher (2008), financial co-operatives are financial organizations which provide services to a variety of demographic groups, following the philosophy that via approaching different groups of people, they can satisfy most of their financial needs based on reciprocal support.

Many microfinance institutions (MFIs) are currently main financial service providers to local people, and both theoretical and empirical studies conclude that the internal and external environment in which they operate is an important factor for their ability to fulfill their mission of offering help to local people (Armendariz & Morduch, 2004). They also argued that MFIs cannot provide effective financial help without a "well-organized regulatory framework" in their structure.

In another study, Ferdousi (2013) cited many impact studies and concluded that MFIs performance was funding from the commercial banking system. Therefore their interest rates were higher, their profits were lower. However, the purpose of MFIs was stability of the financial system. In sum, the macro-economic environment was principal to fully understand the performance of MFIs on uncertain development financial sector.

In Vietnam, the evaluation effectiveness and performance of the PCF still applied CAMEL model (State Bank, 2007). Le Thanh Tam (2008) codifies the basic issues of development activities of the rural financial institutions, focusing on two basic criteria which are the access (outreach) and sustainability (sustainability: sustainable in operation and financial sustainability). Hence, the activities of the rural financial institutions, including the PCF system is an important component, which is analyzed on the perspective.

Dao Van Hung et al. (2010) used OLS regression models with simultaneous equations consisting of two endogenous variables which are ROA and the average loan value to evaluate the factors that directly impact the reliability sound (via ROA) and exposure (through average loan value) of the PCF. The study was conducted on 477 PCFs in the country for 6 years from 2004 to 2009. The results indicated that there was a trade-off between depth-poor approach and sustainable levels of microfinance institutions. However, the organization that provides microfinance services could increase financial sustainability and depth approach while expanding financial access to poor people, i.e. to ensure service goals to develop. Vietnam PCF model is a good choice for replication to develop micro-finance market and contribute to poverty reduction in Vietnam.

Hans Dieter Seibel (2008) had a general analysis of Vietnamese MFIs' operations on two perspectives: Operating environment and organizational structure. Based on that, recommendations to restructure MFIs following international practices are proposed. He considered the operation of MFIs under the effects of global economic crisis. The authors examined the MFI system of Vietnam as two groups. The first one is local MFIs which seemed to be unaffected by global economic crisis and still maintain growth overall, as these institutions focused on countryside. Meanwhile, the second one, which are central MFIs serving mostly individual and organizational clients in urban areas, was somewhat affected as their default loans increased but still did not reach threatening level, and their operating efficiency and profitability slightly decreased.

ADB's study (2009) analyzing the microfinance sector in Vietnam in general and microfinance service providers in particular, claims that the PCF system ranks the third in terms of market share of customers and outstanding loans, and it is a model of financial autonomy. However, the underlying problem facing the system is poor governance and management, is not meeting international best practices and standards on financial cooperatives.

Doan Huu Tue (2010) studied the organization and operation of the people's credit fund system through the theory of linkage system and the principles of cooperation in cooperative credit system. These models have also been applied successfully in Canada and Germany, but have not been applied in the process of building PCFs system in Vietnam. The study focused more on improving the organizational structure of the people's credit fund system through the establishment of supporting companies, information technology centers, etc., clearly establishing the relationship between the unit constituting the system of the people's credit fund of Vietnam according to the principle of organization and operation of the type of cooperative credit institution. Tran Quang Khanh (2012) focuses more on the issue of a suitable cooperative banking model for Vietnam, and a road map for transforming the Central People's Credit Fund into a cooperative bank.

Economica (2012) surveyed at 8 PCFs of three provinces (Ha Noi, Thai Nguyen and Hai Duong) of the Northern Delta to identify and design some products for local PCFs. This report also indicated that the product of the PCF system is poor, thus restricting access to different target customer groups. The policies on savings products, loans products of PCFs did not seem to create any attraction for individuals and households wishing to deposit savings and loans with specific characteristics. Based on that, the authors proposed four additional products, both savings and loans, and recommendations for application throughout the system.

2.2 Service Quality of PCFs

The concept of measuring and evaluating the quality of service has been the most controversial topic in service sector. Since 1980s, the quality of service were studied by researcher such as (Brady and Cronin, 2001), Gronroos et al. (1984) and Parasuraman et al. (1985). The principal point was different between estimating the quality of tangible goods and the quality of service. Due to the intangible service, their service quality was too difficult to evaluate (Parasuraman et al., 1991). Many models have been developed to measure perceived quality of service (Gronroos, 1983; Parasuraman et al., 1991; Cronin and Taylor, 1992; etc). It was the two most widely research approach were the SERVQUAL model (Parasuraman et al., 1991) and SERVPER (Cronin and Taylor, 1992).

In 1985, Parasurman and his colleagues built a gap model, a theoretical model of measuring service quality was estimated the difference between expectations of customer and the service of customer perception.

Parasuraman et al. (1985) conducted research and analysis of focus groups and in-depth interviews to draw conclusions on the quality of service measured through the gap of five critical criteria. Four criteria arise from service provider and one criterion arising from customer. These distances represent the factors that affect the quality of the service. The biggest distances are, as follows:

1. The gap between the wishes of the customer and the manager.
2. The gap between the manager's perceptions and the specific service quality status.
3. The gap between the level of service provided and the quality of service.
4. The gap between the internal environment factors and the delivery of service.
5. The gap between the service expertation and the perception of service.

Based on the distance model and focus group analysis, Parasuraman et al. (1985, 1988) revised the SERVQUAL model. Initially, the model has 10 major criteria for evaluating the quality of service, including its visibility, reliability, timeliness, outstanding advantages, elegance, communication, reputation and security. Security, access and customer insight. The authors have used focus groups and collected data from five key service sectors: automotive repair, retail banking, telephone services, stock brokerage, and credit card companies. The model

measured service quality through a 100-question questionnaire, requiring respondents to evaluate on a scale from 1 to 7 service quality questions. Evaluate the quality of service by measuring the distance between the customer's desire for service and the customer's feeling after using the service. Parasuraman and his colleagues concluded that companies need to narrow the service quality gap to achieve customer satisfaction. The higher the distance is, the better the quality of service of the bank is.

In 1991, again, Parasuraman and his colleagues adjusted and re-evaluated the SERVQUAL model scale. This adjustment aims to ensure the reliability and rationality of research into other service sectors. This study shows that there are five major criteria for assessing service quality: visibility, reliability, timeliness, assurance and insight. Visibility relates to the environment in which it is service provided. Examples include equipment, communication facilities, staff dress, etc. Reliability indicates that a company can supply Service level is independent and accurate. Timeliness reflects the level of timely and timely providing of the service to the customer. In the research, the assurance and behavior of employees creates trust with customers. The degree of insight can be of particular interest to each client (Parasuraman et al., 1991).

Many researchers later criticized the SERVQUAL model. It is not usable for types of industries and the criteria of SERVQUAL model. It is one of the weaknesses. They are not universally used in the researchs (Ladhari, 2009; Saurina, 1997; Buttle 1996; Robbinson, 1999). Due to the confusion of the desired concept in the SERVQUAL model, some researchers believe that it is a need to develop a more accurate new model to measure the quality of service (Carman (1990), etc). To eliminate the weakness, Cronin and Taylor (1992) developed the important model which is the SERVPERF model.

The quality of service was argued by Cronin and Taylor (1992), which needs to be assessed only through customer perception rather than the gap between customer desire and perceptions in the SERVQUAL model. Cronin's and Taylor's empirical studies and others also illustrate that customer perceptions of quality of service are just as good. The Cronin and Taylor models of SERVPERF have concluded that customer preferences and customer perceptions are combined when they evaluate the quality of service they use. Therefore, the SERVPERF model just ignores the desired part of the customer in the SERVQUAL model is sufficient. The SERVPERF model offers 22 questions for customers to evaluate the five key criteria of service quality: visibility, reliability, timeliness, security, and insight. The model also evaluates the quality of service through customer ratings on a scale from low to high. Many researchers then used the SERVPERF model in their study to have similar results to Cronin and Taylor and concluded that the SERVPERF model is better at evaluating service quality.

2.3 Overview of PCFs in Mekong River Delta, Vietnam

In Vietnam, the Mekong Delta region has total of 155 PCFs, account for 15% number of PCF in Vietnam. The figure below shows the allocation of PCFs in Mekong Delta area.

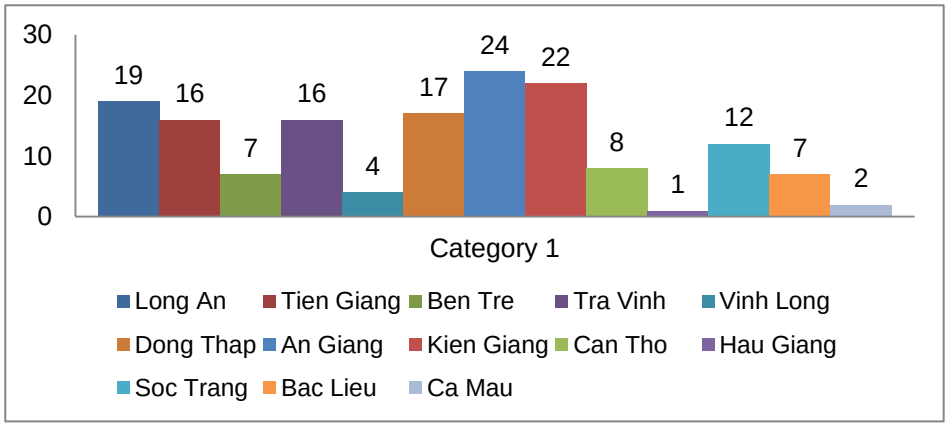

Figure 1. PCFs in Mekong Delta area

Source: Association of People's Credit Fund Vietnam

Total assets of the PCFs in theregion accounted for 17% of the total assets of all PCFsin Vietnam (SBV Report, 2015). With the flexibility operation PCFs system in Mekong Delta area has contributed effectively to development the economic and social, in the rural area of Mekong Delta river. Many PCFs were promoting the role of

community supports and cooperating for solving difficulties in increasing household investment rapidly, improving social security in the communes

From the result of in-depth interviews with directors, managers and PCF members and and household customers by the researchers, PCFs in Mekong Delta River in Vietnam has met the mutual role, supporting households, especially the mutual nature for invididuals in business.The PCF financial services helped to reduce high cost lending in the rural, areaas well as contributed to economic development in the area. Most PCFs activities fully complied with the supervision of the State bank of Vietnam and deposit insurance branch in Mekong Delta.The allocation of the PCF in the region is described through the following chart:

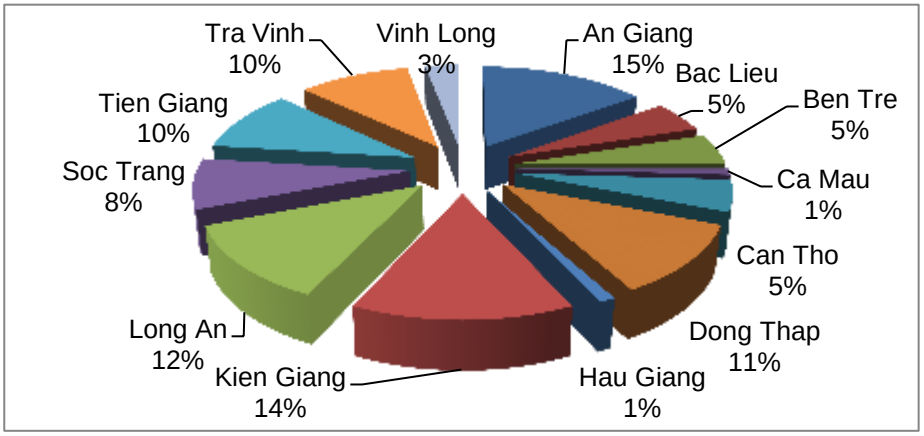

Chart 1. Allocation of PCF in Mekong Delta River

Source: Association of People's Credit Fund Vietnam

As of 2015, the total PCFs equity in Mekong Delta is 9476.58 billion VND. The equity of each fund is allocated by size. Some PCFs' equity are rather high in compare with the average in the country. Their equity ups to 100 billion VND. Especially, the equity of some PCFs are over 500 billion VND (equivalent to 2.5 million USD), such as My Hoa, My Phuoc, My Binh in An Giang province. However, the equity of some PCFs are very low, from 5 to 10 billion VND. PCF has a capital of 20 billion VND under low proportion, ~10.32%, but the total equity of these PCFs accounted for only 2.66% of the entire capital of the PCF in the region. Performance of the PCFs in Mekong Delta continues to maintain stable and sustainable growth and contribute significantly to economic development in the area.

However, there are still some PCFs have notreached to performance goals strictly, profit chase, not complied all the rules and procedures of credit. So, many risks are arising and affecting to safety of PCFs' system in the region. The credit quality decreased, the bad debt increasedin recent years due to impact of economic slowdown in Vietnam. For example, the Can Tho PCFis in the special controlling and towards to disolution or withdrawal of the business license when bad debt ratio was ovr 20%. Some PCFs faced with difficult in liquidity due to the size of capital mobilization from member who are living in the local area is limitted whereas regulations on compulsory reserves is strictly. Then understanding what factor affecting PCFs' service quality is not only neccessary for PCF managers but also for policy makers and local authority to help improve PCFs performance in Mekong Delta River in Vietnam.

2.4 Factors Impact on the Quality Service of PCFs

Before 2002, the assessment of the cooperative funds in the world generally applied similar criteria of commercial banks (according to CAMELS system or CAMEL HIS) or as micro-finance institutions (with 2 groups of indicators of access and sustainability). However, due to the special characteristics of cooperative fund , in 2002 the Council of International Credit Union (Woccu - World Council of Credit Unions) asked two experts Evans and Branch (2002) to develop PEARLS indicators which evaluates the performance of financial cooperatives / credit funds. There are 45 indicators in 6 groups: 6 indicators of protection (protection), 9 indicators of efficient financial structure (effective finnancial structure), 3 indicators on the quality of assets (asset quality), 12 indicators on the ratio of income and costs (rates of return and costs), 3 indicators of the level of liquidity (liquidity) and 11 indicators on growth signs (signs of growth).According Baarda (2006), the analysis of the business performance and quality service of the financial cooperatives should focus on the basic principles of this PEARLS indicators.

Hesse and Cihak (2007) studied the difficulty to affect the financial credit funds when they werefacing and dealing with risk. Through data of 16 577 credit institutions, including the 3072 financial cooperatives in 29 countries of the OECD. The results showed thatthe financial cooperatives tent to be more stable operation in compared with commercial banks, but their mobilization were more difficult than other financial institutions in the recession and crisis periods.***Quality services of PCF:*** Another outstanding factor needed to be taken into consideration when evaluating one people credit fund performance is the quality of customer services. Customers will feel pleased if all of their wonders and worries are solved reasonably to their expectation. Especially, the target customers of this type of funds are often middle-income households which often feel hesitated when asking about their cases, there is a need of enthusiasm from consultants so that they can overcome all of their difficulties. To evaluate the impact of services quality to performance, SERVPERF had been used since 1988 by Parasuraman et all, the Service Quality components(SERVQUAL) have been measured by five dimensions which are Tangibles, Reliability, Responsiveness, Assurance and Empathy.

The SERVQUAL model (Parasuraman et al, 1988) contains five factors and 22 independent variables service quality, can be said that it quite fully reflects the characteristic elements for the quality of service. However, in the research in 1991 and 1993, Parasuraman (1991, 1993) determined that the SERVQUAL model is fully defines of quality and service. The model can be used for all services. In the model, the gap of service quality is shown between customer's service expectation and customer's perceptions to be used the service.

The SERVPERF model was designed by Cronin and Taylor (1992), based on the SERVQUAL model with eliminating some factors and developing this model.

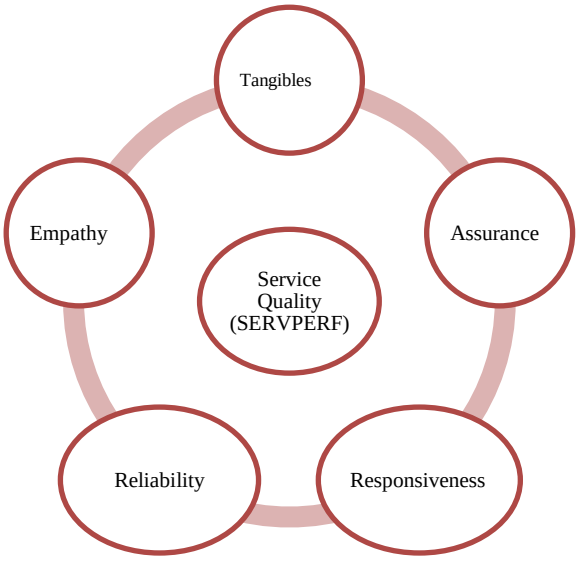

Figure 2. Service Quality (SERVPERF)

Source: Cronin and Taylor (1992)

In order to evaluate to the performance of PCFs, our research focuses on their quality service in Mekong River Delta, Vietnam by EFA (Explanatory Factor Analysis) methodology. Then, some explanatory factors are shown. The factors are suitable with and belong to characteristic of PCFs performance in the area.

3. Methodology

3.1 Data

The actual survey was distributed to customers who used the services of the People's Credit Fund in Mekong River Delta. In addition, the questionnaire was built with 20 questions = representing 5 factors, which were rated below SERVPERF model, LI-Kert 5 level score to analyze statistical and multivariate data.

All data would be processed in response to the support of SPSS 20.0. Initially the data would be encrypted, cleaned, and then analyzed with the main parts: rating reliability (Cronbach Alpha) and the value (factor loading), EFA; test the theoretical model (regression testing, conformance testing, hypotheses testing).

The research restricted the investigated sample from PCFs in Mekong River Delta only.24 PCFs were randomly chosen. All variables were explanatory with 100 answers from interviewing 100 customers who PCFs services.

The questionnaire will be designed for families to use the services of the people's credit fund in Mekong Delta area: (i) the level of service satisfaction of PCF, (ii) the impact of the PCFs services to provide economic benefits in local society. The questionnaire were sent to PCF customers with the supports from supervision of local authority of the State Bank of Vietnam.

3.2 Variables

As mentioned above, this research was set to answer the question whether factors impact on effective performance of PCFs. Regarding prior literatures, these variables are Tangibles (TAN), Responsiveness (RES), Reliability (REL), Assurances (ASS), Empathy (EMP).

Table 1. Scale for SERVPERF

TANGIBLES	1	TAN 1	Head Office, Modern and Attractive Equipment
	2	TAN 2	Elegant staff outfit
	3	TAN 3	Convenient work time
RESPONSITIVENESS	4	RES 1	Convenient withdrawals service
	5	RES 2	Convenient deposit service
	6	RES 3	Fast transaction time
	7	RES 4	Willingness to serve
	8	RES 5	Support customer enthusiastically
RELIABILITY	9	REL 1	Reasonable withdrawal fees
	10	REL 2	Reasonable transfer fees
	11	REL 3	Reasonable interest rate
	12	REL 4	Personal information is secured
	13	REL 5	Believe in information communicated
ASSURANCES	14	ASS 1	Have knowledge to advice customers
	15	ASS 2	Attitude creates peace of mind
	16	ASS 3	Safety transaction
	17	ASS 4	Punctually
EMPATHY	18	EMP 1	Enthusiastic with customers
	19	EMP 2	Intention to customers need
	20	EMP 3	Actively intention to customers difficulties

Source: Parasuraman et al. (1991).

As the analysis, the performance of the PCFs (the dependent variable PER is applied to the Serveperf model) in Mekong River Delta area combines with multiple linear regression analysis.

Regression model: **PER = C0 + C1 * TAN + C2 * REL + C3 * RES + C4 * ASS + C5 * EMP (1.1)**

(Where: PER: The PCFs Performance (PEARLS); TAN: Tangibles; REL: Reliability; RES: Responsiveness; ASS: Assurance; EMP: Empathy).

The quality of service is the research design:

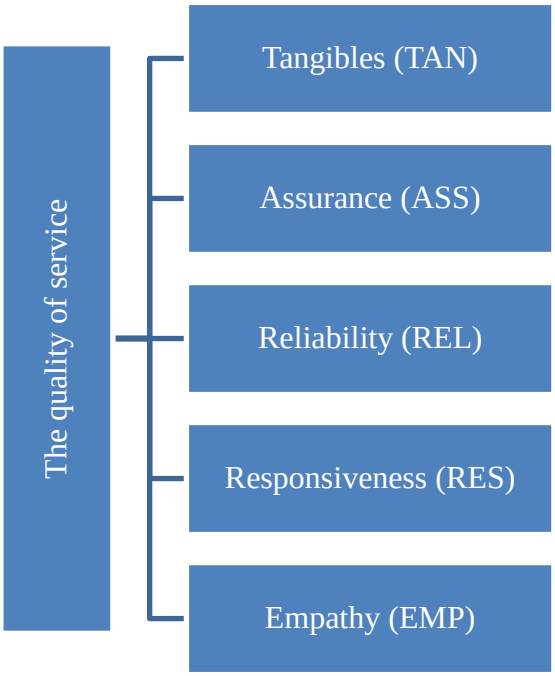

Chart 2. EFA research design

4. Results and Discussions

4.1 Regression

By using Cronback Alpha coefficient, the testing of the reliability of variables asked in the questionnaire, insignificant variables in the model will be eliminated. Factors after analysis is described as table 2 below.

Table 2. Scale testing with Cronback Alpha Coefficient

No.	Item	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronback Alpha
Factor 1: Tangibles (TAN)						0.789 Items: N=3
1	TAN 1	6.71	3.258	0.552	0.795	
2	TAN 2	6.49	2.919	0.701	0.639	
3	TAN 3	6.32	3.088	0.639	0.702	
Factor 2: Responsiveness (RES)						0.648 Items: N=5
1	RES 1	16.15	4.290	0.570	0.540	
2	RES 2	16.02	4.707	0.426	0.598	
3	RES 3	17.00	3.535	0.217	0.298	
4	RES 4	16.08	4.478	0.568	0.554	
5	RES 5	16.23	3.856	0.566	0.517	
Factor 3: Reliability (REL)						0.823 Items: N=5
1	REL 1	14.73	7.674	0.661	0.776	
2	REL 2	14.77	7.734	0.672	0.774	
3	REL 3	14.80	8.162	0.501	0.822	
4	REL 4	14.87	7.609	0.691	0.768	
5	REL 5	14.91	7.396	0.585	0.801	
Factor 4: Assurances (ASS)						0.656 Items: N=4
1	ASS 1	11.79	2.976	0.561	0.504	
2	ASS 2	11.61	4.220	0.134	0.750	
3	ASS 3	11.85	2.795	0.457	0.578	
4	ASS 4	11.61	2.665	0.635	0.438	
Factor 5: Empathy (EMP)						0.864 Items: N=3
1	EMP 1	6.57	3.237	0.727	0.821	
2	EMP 2	6.54	3.079	0.719	0.831	
3	EMP 3	6.73	3.169	0.780	0.774	

Analysis results shows that most of factor groups have Cronback Alpha coefficient greater than 0.6, satisfy the conditions with statistical significance.

All variables in group factor 1 (TAN) that includes Head Office, Modern and Attractive Equipment will be removed from the model because Cronback Alpha coefficient have not satisfy because Cronback Alpha is less than 0.6. Addition, RES 3 (Fast transaction time) and ASS2(Attitude creates peace of mind) are also removed because of the low Corrected Item-Total Correlation (< 0.3). The analysis is shown that the performance of PCFs in the Mekong

River Delta dilivers the service to apply the micro-finance and their major purposes is eliminated hunger and reduced poverty. Therefore, the performance of PCFs is less profits.

Through the elimination of three variables TAN 1, RES 3, ASS2, Cronbach Alpha coefficients is adjusted to ensure compliance with the theory of reliability, will be accepted for testing theoretical models of the subject.

Table 3. Results of EFA

Rotated Component Matrix[a]					
	Component				
	1	**2**	**3**	**4**	**5**
REL4	0.830				
REL2	0.828				
REL1	0.803				
REL5	0.717				
REL3	0.650				
RES4		0.845			
RES5		0.799			
RES1		0.776			
RES2		0.748			
EMP3			0.891		
EMP1			0.884		
EMP2			0.849		
ASS4				0.873	
ASS3				0.784	
ASS1				0.723	
TAN3					0.912
TAN2					0.864
Eigenvalues	3.213	3.007	2.475	1.626	1.521
Eigenvalues explained %	18.901	17.690	14.560	9.567	8.945
Cumulative Explained %	18.901	36.590	51.150	60.717	69.662

As regression results above, the numbers in Rotated Component Matrix tables represent biggest factor loading of each observed variables. The value greater than 0.5 proves that the observed variables are important in the overall, EFA analysis is practical significance.

Total extracted variances coefficient is 69.662%, implies thatfive groups of factors explained 69.662% of the observed variables variation in the model. This coefficient is acceptable by Hair and CTG (1998) because of the standard requirements of extracted variances (> 50%).

The importance levels of the factors in each group affecting the performance of PCFs are evaluated through factor loading. This higher coefficient is, the more important role the factor plays.

- Group factor 1 (REL) : Factor REL 4 (0.830)
- Group factor 2 (RES) : Factor RES 4 (0.845)
- Group factor 3 (EMP) : Factor EMP 3 (0.891)
- Group factor 4 (ASS) : Factor ASS 4 (0.873)
- Group factor 5 (TAN) : Factor TAN 3 (0.912)

After using EFA, the research is removed some independent variables in the regression model, five group factors above are suitable with the (*) regression model above (in which PER is dependent variable).The performance of the PCF in Mekong Delta area combines with multiple linear regression analysis with five group factors. The regression results are, as follows:

Table 4. Regression Results - R

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Durbin-Watson**
1	0.768	0.590	0.568	0.461	1.646

Adjusted R^2takes 0.590. It can be seen that independent variables can explain up to 59% variance of the dependent variable. By Durbin – Watson testing, the Durbin – Watson = 1,646, no correlation between the residuals. Regression model does not violate the independence of error.

Table 5. Regression Result – ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	28.770	5	5.754	27.072	0.0000
Residual	19.980	94	0.213		
Total	48.750	99			

Regression analysis - ANOVA gives F-value = 27.072, sig is small enough to prove the suitability of regression model.

Table 6. Regression Result – VIF

	REL	RES	EMP	TAN	ASS
VIF	1.027	1.040	1.106	1.064	1.149

In theory, with magnification factor VIF <10, the pattern does not occur multicollinearity. But in reality, we have to consider the condition: VIF <2.

Table 7. Multiple linear regression analysis

MODEL	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	Beta	Std. Error	Beta	T	Sig.	Tolerance	VIF
CONS	-1.376	.639		2.154	.034		
REL	.172	.069	.167	2.496	.014	.974	1.027
RES	.445	.101	.298	4.424	.000	.962	1.040
EMP	.470	.057	.577	8.305	.000	.904	1.106
TAN	.130	.057	.155	2.279	.025	.940	1.064
ASS	.211	.073	.206	2.914	.004	.870	1.149

These factors with Sig <0.05 are eligible to become a part of the regression equation. By Multiple linear regression analysis, the factors remain suitability with the regression model.

Models are in accordance with the obtained data. The dependent variable PER is affected by 5 major factors that expressed by regression equation:

$$\mathbf{PER = -1.376 + 0.172*REL + 0.445*RES + 0.470*EPM + 0.130*TAN + 0.211*ASS \quad (1.2)}$$

4.2 Findings and Discussions

From the regression model 1.2, it can be concluded that service quality of PCFs in Mekong delta River areas in Vietnam has been affected by 5 factors, which are Reality, Responsiveness, Empathy, Tangibles and Assurance. This findings are consistent with the previous researches (Dao Van Hung, 2007, Le Thanh Tam, 2010) on service quality of PCF in the whole of Vietnam. From the regression model, the most important factors affecting to service quality of PCFs in MekongDelta River are Responsiveness and Empathy, whereas the lowest important factors are Reality and Tangible. These findings can be explained by the current situation of PCF in this area that despite the poor

infrastructure of PCFs, including information, management, office, equipment, the PCF' staffs are much symp9+thic and highly responsive to serve their customers. These are their strengths to compete with commercial banks in the rural area.

This paper contributed to the literature that the level impacts to customer satisfaction with PCFs quality service in Mekong Delta River area. By using EFA, this paper found that some factors: REL 4 (The information is secured), RES 4 (Willingness to serve), EMP 3 (Actively intention to customers difficulties), ASS 4 (Punctually), TAN 3 (Convenient working time) are the main reason of each group factor affecting to the service quality PCFs in this area. With PCF members are also borrowers or depositors in the commune, PCF customers highly require the confidential keeping of PCF staffs otherwise they will switch to the commercial banks in the area. PCF staffs have well understanding their customers because of closed network in the commune. This helps to increase PCF competitiveness with the commercial banks in the same ling area. Besides, PCF staffs are not as professional as commercial bank staffs, however they are punctually and serve customer with the highest conveniences. That reasons lead to the higher correlation between ASS4 – punctually variable, TAN 3 – convenient working time and PCF's service quality.

The importance levels of Tangibles and Empathy are evaluated through factor loading. This finding is also consistent with Tran Thi Thanh Tu, Tran Binh Minh (2016). With small size in comparison with commercial bank, PCFs in general and in Mekong Delta River area in particular faced difficulty in tangible asset investment. Then, their office and furniture impact much on customer's satisfaction. They can not compete with commercial bank in term of infrastructure. Then they try to improve their service quality by improving sympathy. Once meeting with PCF staff, customer will be served to meet every requirement, they never let customer move to the other commercial bank.

5. Conclusions and Recommendations

From the results interviewing with 100 PCF customers in 24 PCFs in Mekong Delta River in Vietnam, the authors used EFA to analyze 5 factors affecting to service quality of PCFs. It's found that information secured, willingness to serve, actively intention to customer's difficulties, punctually, and convenience from PCF staffs will have positive impact on customer satisfaction.

Tangibles and Empathy are evaluated through factor loading as most important factor to PCF service quality. That implies that PCFs' managers should pay more attention to the tangible assets investment. With regard to improvement of the tangible variable, fund managers should focus on specific aspects which immediately make good impression on customers. These areas include equipment and physical facilities, appearance of employees. On the other hand, PCF manager should keep in mind that empathy was the most important factor in creating PCF customer's service quality highly appreciated. Besides, to improve the quality service, PCF should pay more attention on improving their human resource. So that they can become more active and more empathy in their job, have good communication skills, being courteous, friendly to meet customers' need. This conclusion of the study goes along with the Nadiri and Hussain (2005) findings.

From the paper performance of PCF's service quality may be better than other financial institution in term of time length they serve a customer, the study show that managers should have special focus on improving their internal procedure to be lean service to help cutting time service. Many people choose a PCF instead of others because of its convenience. It would seem an obvious strategy to continuously provide immediate response to customers so that they can easily and quickly access to PCFs financial services. Shortening the transaction time, minimizing average pull-out time as well as deposit time are three obvious solutions to this situation. The convenience and profession must be taken into understanding consumer psychology, balancing the consumers' desire for bargains with their level of acceptance of the overall delay time of the total services they are using. By doing these, it's strongly believed that PCF service quality will be improved to be better than commercial bank in the rural area in Vietnam.

References

Association of Vietnam People's Credit Fund. (2015). Annual report of Association of Vietnam People's Credit Fund 2015.

Cronin, Brady & Hult (2000). Assessing the effect of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing, 76*, 193-218. https://doi.org/10.1016/S0022-4359(00)00028-2

Cronin& Taylor. (1992). Measuring service quality: A re-examination and extension. *Journal of Marketing, 56*(3), 55-65. https://doi.org/10.2307/1252296

Đào Văn Hùng, Lê Thanh Tâm và Nguyễn Thị Thu Hằng. (2010). Regression model testing credit accessity and financial sustainability of MFI in Vietnam. *Journal Economics and Developmen, 159*(III), 9/2010.

Doãn Hữu Tuệ. (2010). Improving the performance of PCFs in Vietnam,PHD thesis, The National Economics University in Hanoi, Vietnam.

Economica. (2012). Phát triển sản phẩm tài chính mới cho hệ thống Quỹ tín dụng nhân dân.

Gronroos. (1978). A service-orientated approach to marketing of services. *European Journal of Marketing, 12*, 588-601.

Gronroos. (1984). A service quality model and its marketing implications. *European Journal of Marketing, 18*(4), 36-45.

Hesse & Cihak. (2007). Cooperative Banks and Financial Stability. *IMF Working Paper*.

Cronin &Taylor. (1992). *Measuring Service Quality: A Re-examination and Extension, 56*(3), 55-68.

Lâm Chí Dũng. (2013). SERVPERF application on retail banking services of Vietinbank, Ngu Hanh Son branch. *Journal of Economic Sciences, 1*(01), The Economics School, Danang University.

Lê Thanh Tâm. (2007). SWOT analysis on strategy of Vietnamese PCF in the integration context. *Journal of Economics and Development, 125*(11).

Lê Thanh Tâm. (2008). Development of MFI in Vietnam. PHD thesis, The National Economics University, Hanoi, Vietnam.

Parasuraman. (2000). Technology Readiness Index (TRI): A multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research, 2*, 307-320.

Parasuraman, Berry & Zeithaml. (1991a). Understanding customer expectation of service. *Sloan Management Review, 32*(3), 39-48.

Parasuraman & Zeithaml. (1991b). Refinement and reassessment of the SERVQUAL Scale. *Journal of Retailing, 67*(4), 420-450.

Parasuraman, Zeithaml & Berry. (1988). SERVQUAL: Amulti-item scale for measuring consumer perceptions of service quality. *Journal of Retailing, 64*, 12-40.

Parasuraman, Zeithaml & Berry. (1994). Alternative scales for measuring service quality: A comparative assessment based on psychometric and diagnostic criteria. *Journal of Retailing, 70*, 193-194. https://doi.org/10.1016/0022-4359(94)90032-9

Parasuraman. (2000). Technology Readiness Index (TRI): A multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research, 2*, 307-320.

State Bank of Vietnam. (2008, 2009, 2010 and 2011, 2015). Annual report of State Bank of Vietnam in 2008, 2009, 2010 and 2011, 2015.

Woccu. (2010). *Concepts of Credit Union accessed at http://www.woccu.org/about/creditunion*,

Tran Thi Thanh Tu, Tran Binh Minh. (2016). Performance of People's Credit Funds in Vietnam: the Case of Mekong River Delta. *International Journal of Emerging Research in Management &Technology, 5*(6).