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MOBILE MONEY BUSINESS DEVELOPMENT AT VIETNAM MOBILE SERVICE (VMS- MobiFone)

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Introduction

1. Research Problems

The growth and penetration of mobile services across the world has been a phenomenon that brings a new opportunity: mobile money, which allows cash to travel as rapidly as a text message. Small retailers can act rather like bank branches after the starting of mobile money. They can take your cash, and (by sending a special kind of text message) credit it to your mobile-money account. Then money (again, via text message) can be transferred to not only other registered users, who can withdraw it by visiting their own local corner shops but also to people who are not registered users; they receive a text message with a code that can be redeemed for cash.

The mobile money issues then become an interesting topic recently with number of launches in multiple markets. Juniper Research predicts that services users will exceed 500 million globally by 2014. For this reason, In Vietnam market, it is a new business opportunity for all parties includes operators, financial institutions, and payment companies. And VMS-MobiFone can take this opportunity as well.

2. Objective and aim of thesis

This research is implemented to obtain the two purposes:

- Study about the Mobile money - opportunities and benefits.
- Apply to VMS-MobiFone: find the suitable business model.

3. Research questions

This thesis tries to answer some main question: What is Mobile Money? Is it a good opportunity?; What are the models of Mobile money implementation?; What are the key success factors?; Is Mobile money an opportunity in Vietnam for the mobile operator; How to implement to VMS-MobiFone?

4. Scope of work

This thesis studied the mobile money theory in the world since 2007 when mobile money was first soundly successfully implemented in Kenya and became a worldwide phenomenon. And study on VMS case, which focus on main factors of mobile money implement strategy.

5. Data resource

For the theoretical part, data sources are textbooks, researches, articles from internet since 2007. As for the case study, data is obtained from questionnaire, interview customers and internal data.

6. Methods

The thesis uses the empirical method, desk researches, questionnaire, interview and case study in the study process.

7. Significance of thesis

The thesis may contribute an important part to the development of mobile service industry – especially the launching of Mobile money in Vietnam for Mobile operators in general and VMS in particular.

8. Thesis limitation

The biggest limitation of this thesis is due to the freshness of Mobile money all over the world; few academic reviews have been applied and proved. And there also has been no trial implementation of these by Vietnam operators so far. Moreover, this thesis cannot cover all theoretical issues of mobile money but only focus main key success factors when design mobile money business development in VMS.

The last but not least, this research collects data by experimental research, which content questionnaire survey and statistical analysis. Therefore, it contents some common limitation of this methodology such as: sample limitation, time pressure.

9. Expected results

The thesis expects to give the systematical theory in Mobile money, analyst the opportunity in Vietnam market and aim to figure out Mobile money business development for VMS from those findings.

10. Structure of thesis

The thesis is divided into four main parts:

Part 1: Mobile money theoretical overview.

Part 2: International MNOs mobile money deployment.

Part 3: The case of Vietnam mobile service company.

Part 4: Mobile money business development proposal for VMS.

Chapter 1: Mobile money theoretical overview

1.1. Mobile Money (MM)

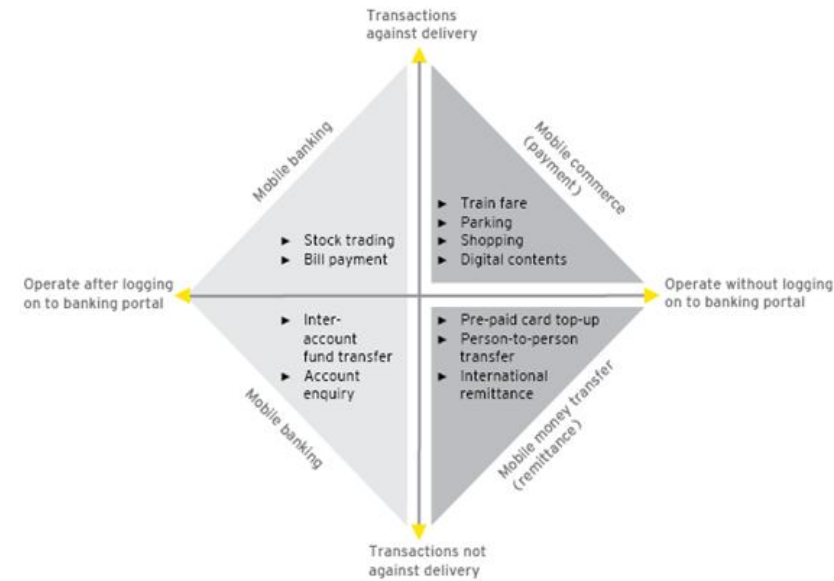
1.1.1 The convergence of Mobile service and financial service

With the rapid increasing penetration of mobile services across the world, the possibility to integrate mobile and financial services is becoming more apparent. While today, financial access for the poor is still an issue in many developing countries. It's by far fewer than mobile penetration rate of approximately 70% (according to GSMA 2010).

Besides, bank transfer and money remittance institutions fee is expensive, limiting the ability of workers to distribute funds to their relatives, especially when sending small amounts.

Due to this fact, mobile-financial merging creates opportunities for MNOs and financial institution and consumer as well.

1.1.2 What is Mobile money service?



Source: Ernst & Young analysis

Figure 1.1. Mobile money services

The concept of “mobile money” alters across the industry including: *Mobile banking*, *Mobile Money Transfer (MMT)*, *Mobile Commerce (Mobile Payments)*. So, mobile money allows for subscribers – whether banked or unbanked – to deposit value into their mobile account, use or send value via a

simple handset to another mobile subscriber, and allow the recipient to turn that value back into cash easily and cheaply.

1.1.3 Opportunities for Mobile money services

Firstly, in emerging countries where traditional financial services is usually limited, sending money to relatives is a significant need but very complicate (lack of convenience, time consuming and expensive). For this reason, mobile money is a new solution to “bank the unbanked”.

Secondly is the dominant of mobile subscribers over the banking account holders in developing countries. According to the GSMA, by 2012, the number of mobile phone users has exceeded credit card users by 2 to 1, and has outnumbered the use of automated teller machines (ATMs) by 2,000 to 1. This is a good opportunities for mobile money.

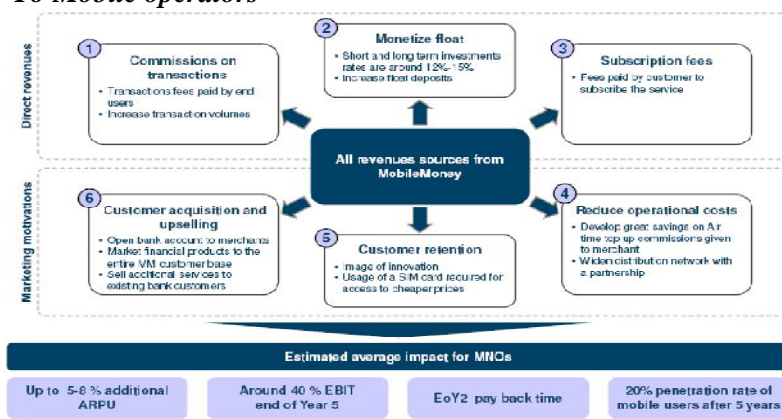
Thirdly, remittance in developing countries is a driven factor of mobile money business and Vietnam is one of the top 20 remittance received countries.

Last but not least, Vietnam has a good youth population which is a high potential segment, given their willingness to new technologies.

Across the world, it is estimated 176 mobile money deployments will have been launched by the end of 2010. GSMA forecast the potential mobile money services to unbanked can generates both US\$5 billion in direct revenues and US\$2.5 billion in indirect revenues per year to mobile operators by 2013.

1.2. Benefit of Mobile money services

1.2.1 To Mobile operators



Source: GreenWich White paper 2009

Figure 1.4. Value drivers of mobile money to MNOs

Mobile money has both direct and indirect benefits to mobile operators. The direct benefits come from commission on transactions, subscription fees

and the monetization of the float which are paid by end users. The indirect benefits including: the rise of APRU (study estimated ARPU is expected to increase by 5%-10% after several years), reduction of churn rates, opportunity to up-selling and new customer acquisition.

Besides, implementing mobile money, mobile operators may also save billing costs and airtime distribution commission (estimated about 4%) because customers can top up and make payment themselves.

1.2.2 To Customers

To customers, mobile money provides a starting point to formal financial services for the billions of people and a faster, cheaper and safer way to transfer money than other alternatives.

1.2.3 To Banks

To banks mobile-financial convergence helps bring (1) new services, (2) cheaper prices, and (3) increase banking penetration of untapped markets at a relatively low acquisition cost.

1.2.4 To Others

Moreover, they also create benefits merchants, regulators, etc..

1.3. Models for Mobile money business

1.3.1 Operator – Centric

Operators own mobile money services and in the center to utilize their strengths like: own mobile subscribers, large distribution channel, be experts in mass marketing, and advantage of systems.

1.3.2 Bank – Centric

In this model, banks are in the center to utilize their advantage of: their expert in cash management, their compliance to financial regulations, and their credibility in providing financial related services.

1.3.3 Payment company – Centric

There are increasing numbers of payment network or merchants join this business because of the opportunities in mobile payment..

All models require a very good partnership among members.

1.4. Key success factors for mobile money business

1.4.1 Regulation

Regulation is the prerequisite factor to deploy mobile money business and it decided the strategy. The beginning task of implementer is to enhance regulation to get access to financial services through mobile. Then, base on that all services will be developed. MNOs then have to build strong relationships with government and regulatory bodies so solves any issues raised over the time.

1.4.2 Product

In positioning a mobile money service with prospective customers, the provider faces four key challenges: explaining what it does, why it's better than the alternatives, and how it works, all while reassuring them that indeed it can be trusted to work.

Many researches from current deployments show that two crucial and basic elements to success is **ease of use** and **reliability**. A lot of work still needs to be done to promote customer acceptance.

Besides, many recent benchmarks confirm that successful mobile money launches have taken into consideration some key success factors:

- Addressing the basic unmet market needs in terms of money transfer and payment services.
- Addressing the weaknesses of alternative existing solutions.
- Developing a relevant pricing model that makes the service affordable to targeted customers.
- Free deposits, with no minimum balance requirements.
- An ability to send money to non-customers
- Enabling ATM withdrawals.

1.4.3 Promotion

Many experiences from successful deployment show that **strong branding** and **simple messaging** is a good promotion strategy. They market and advertise all services under one brand.

Besides, it is vital for a mobile money entry strategy to choose appropriate promotion channel: billboards, TV advertisement, events or poster, leaflet, or even word of mouth. Those channels should be used suitable with target market in each period of product launching phase. And MNOs shouldn't forget that agents are also an ideal channel to market the service.

1.4.4 Distribution channel management

Less tangibly, but equally importantly, agents are the front-line, human face for an operator's mobile money service and create a huge affect of services to customer. They are also the main point to get the services liquidity. So, building a good agent network is an important to launching successful mobile money.

The following is some important points to concern when build an agent networks:

- Simple and transparent retail pricing
- Frequent and consistent monitoring of retail agents
- Scalable agent distribution structure for liquidity management
- Easy and quick customer registration, with rewards for agents
- Maintaining a balanced growth of customers and retail agents

Chapter 2: International MNOs mobile money business deployment

2.1 Entry mobile money strategy for MNOs

2.1.1 Market strategy

2.1.1.1 Market analysis (preliminary assessment)

Market analysis is to take a market study on socio-economic, mobile market financial markets to find out the opportunities and challenges.

2.1.1.2 Marketing strategy

a. Product development

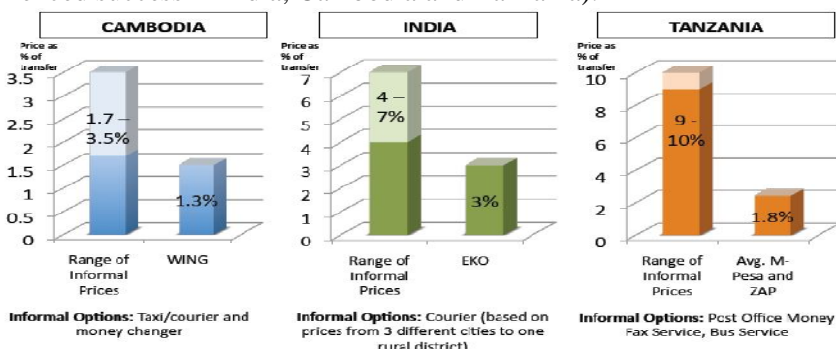
Mobile money services have different services with the level of complexity vary significantly from one to the other and it is not correlated with mass market potential.

It is believed that operators should first launch features with widespread usage potential in order to educate the market such as: domestic money transfer, bill payment, airtime top up, micro loan disbursement and university or school tuition fees payment, international remittance.

Looking at some research around mobile money businesses implemented in emerging market like Philippines, Kenya, we can see that the biggest is about mobile money transferring, then airtime top up, and then payments. That gave us a general picture to create a good product strategy when entry.

b. Price setting

In order to success with mobile money services that target the unbanked customer, pricing should be more competitive and consistent with affordability and usage patterns of these price sensitive segments (as it experienced success in India, Cambodia and Tanzania).



Sources: CGAP 2010

Figure 2.6. Branchless banking is cheaper than the cheapest informal option for money transfer

Besides, the pricing model is still a concern for MNOs. The most common used in this mobile money services are:

- Model with tiered, flat fee pricing model transfer (with the first tier

targeting small transfers), and

- Model with tiered, flat fee (some steps) and percentage.

c. Marketing & brand development

Experiences show the wise strategy is developing strong brand by:

A single, simple message: very clear and specific messaging.

National launch at scale: to get network effect.

An appropriate marketing mix: A good brand name and single message “send money home” should be a good start. For major cities, marketing should include advertising, billboards, campaigns and events. To rural and remote regions, it could be word of mouth, community leaders, agents, TV, radio, or road shows.

2.1.2 Partnership model

As of today, the “Telco lead” model seems to prevail because they are better than bank to reach unbanked populations and have a strong IT systems suitable for mobile money. When cooperate with banks, they can achieve banks’ licenses to provide money services.

Depending on the local context and the strategy, operators may select partners suitable as:

- Strong operators with experience will value partners with a close relationship with the central bank and other governmental bodies.
- To smaller ones, larger bank actived in mobile money is good.

2.1.3 Technical and IS analysis

To implement mobile money business, MNOs have to make a technical/IS analysis to choose a suitable vender and technology base on:

- IS, service platform, network analysis (capacity, possibilities..)
- Customer base compliance (handset, SIM card..)
- RFI of vendors to fulfill requirements: experiences, credential, products feature roadmap/release.

Besides, MNOs also concern about the channel used to deliver mobile money services (SIM based/dependant applications; JAVA/J2ME; USSD; IVR; SMS; WAP). In these, SIM and USSD based seem to be most appropriate. However, MNO can adopt a multi-channel approach.

2.1.4 Distribution agents

a. *How big should an agent network be?*

Many analyses suggests that operators should take a three-phased approach: (1) recruit an adequate number of agents in commercial launch sufficient for early adopters; (2) focus on customer acquisition after launch; then, once there is an equilibrium between the number of agents and customers, (3) grow the two in parallel.

b. *Characteristics of a good agent network*

#1: Ubiquitous: design ubiquity network balanced with the requirement of

profitability.

#2: Trusted: Operators can partnerships with large retail chains with high brand visibility to get advantage of their credibility to customers.

#3: Ability to maintain sufficient cash and e-money float balances to performing cash-in/cash-out transactions. Operators have to make some researches to issue regulation for their agents on this.

#4: Strategic locations: is important key. But in the long term, operators should have at least two agents in each locate for competition.

#5: Low-cost: suitable to unbanked.

c. Mobile money agent network model

Agents perform three key roles: registering customers, educating them, and facilitating cash-in/cash-out transactions. There are generally 2 types of agent network models: agents direct and aggregator model.

Model 1: Selling and buying electronic value directly to and from agents. This approach requires the operators to directly manage a huge number of agents.

Model 2: Using super agents and master agents (aggregator model). MNOs add a layer between itself and its agents called aggregators. They are responsible for recruiting new agents and managing their float. In return, they will be paid commissions.

Aggregators include of master agents and super agents. Super agents are paid each time they buy or sell electronic value from or to an agent while master agents are paid for liquidity management indirectly.

d. Incentivizing mobile money agents

Current deployments all show that commission is the most powerful incentive to retain a good liquid agent network. And if operators pay agents for the wrong things, they will incentivize agent behavior that undermines, rather than supports, mobile money business.

What is the process for establishing an agent commission model?

- Understanding agents' requirements

In every deployment we know of, agents are paid on a variable (commission) basis: flat fee for signing up new customers and tier/percentage for cash in/out. The commissions that operators pay agents must, at a minimum, be generous enough to persuade agents to invest in float, learn and remember relevant processes, and serve mobile money customers. Therefore, operators should analyze a typical agent's economics of the business to ensure that serving as a mobile money agent offers a superior return in comparison with their current business or selling their least profitable or slowest moving inventory.

- What are commissions for aggregators and master agents?

Operators should be careful on balance between incentives for aggregators

to recruit agents and reward from their agents earning. About the share rate between master agents and agents, some operators dictate how commissions to be split; others allow master agents and agents to negotiate this.

2.2 Mobile money case study – M-PESA (Kenya)

2.2.1 Market situation

Social economic: Kenya is 582.646 km² area countries of 38.6 million populations in 2008 with 75% of them are in rural and agriculture. GDP of Kenya is \$890/capital.

Financial access: Before the launch of M-PESA, Kenya has poor financial alternatives 19% of people were formal financial access, 43% was semi informal and 38% was financial (*FinAccess 2006*).

Mobile industry and Safaricom: Kenya has mobile phone penetration of about 42%. Safaricom is the dominant operator with market share of around 80%, and has sales commission rate to channel of 6%.

2.2.2 M-PESA Mobile money business

a. *Launching M-PESA:* March 2007

b. *Partnership Model:* MNO launched alone by Safaricom.

c. *Result:*

- Change the way people send/receive money:

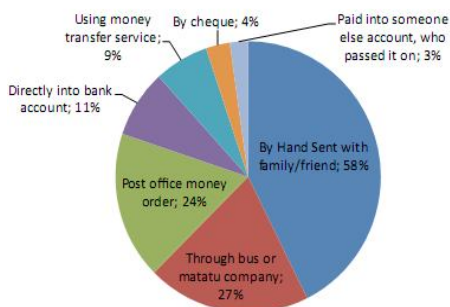
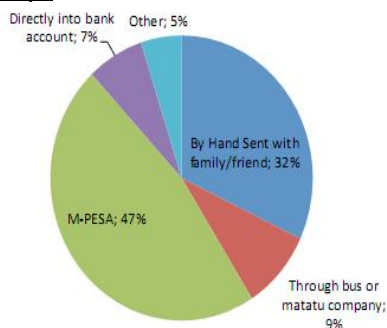


Figure 2.16. How people sent money before M-PESA



Sources: Safaricom researches 2009
Figure 2.17. How people sent money after M-PESA

- Business result (Dec 2009)

- 8.3 million registered customers - majority active. (Equal to 57% Safaricom's customers and 21% of the population or 40% of adults).
- 11,000 retail stores at which M-PESA users can cash in and cash out.
- \$ 300 million/month in money transfers (10% of Kenyan GDP).
- \$ 650 million/month in cash deposits and withdrawal transactions at M-PESA stores with the average transaction size is around \$33.
- In the 2009 FinAccess survey, one quarter of M-PESA users reported

using their phones for storing money (the average balance was \$3)

- \$ 7 million in monthly revenue (equal to 8% of Safaricom revenues).
- 19% of Safaricom airtime purchases through M-PESA.
- 27 companies using M-PESA for bulk payments distribution.
- 75 companies using M-PESA to collect payments.

d. Technology: Sim Toolkit (STK) technology.

e. Fee structure

In Kenya there is a fixed fee (\$0.4) for sending any amount of money to a registered user (up to the limit of USD 460). For the most popular amount sent, which is about 20 USD in Kenya, Safaricom charges 3.6% of the amount sent (deposit, withdrawal and transfer fee include).

f. Agent networks

When launching M-PESA, Safaricom built the agent network from their existing 1,000 airtime distribution channel with beginning number of 300 agents at the launch (choose large and medium sized one). Then Safaricom used a single aggregator to help quickly increase the number of agents and do liquidity management.

2.2.3 M-PESA key successful factors

Brand development: From the very beginning, Safaricom built a very strong brand for M-PESA base on strong operator brand.

Store channel development: Safaricom effectively leveraged its extensive network of airtime resellers and design new agent networks with effective incentive policies.

Pricing: MPESA encourages customers with free and quick registration to the service, free deposits, and ability to send money to any subscriber.

Chapter 3: The case of Vietnam mobile service company

3.1 Introduction of Vietnam Mobile Service Company

3.1.1 Overview about Mobile Market 2010

Vietnam Mobile market recently has seen an impressive growth and increasingly competitiveness. Total subscribers grow up reach nearly 147.3 million by Nov 2010 – equal to penetration rate of about 160%. Together with the boosting growth, the price war is fiercer and ARPU is on downwards (see figure 3.1).

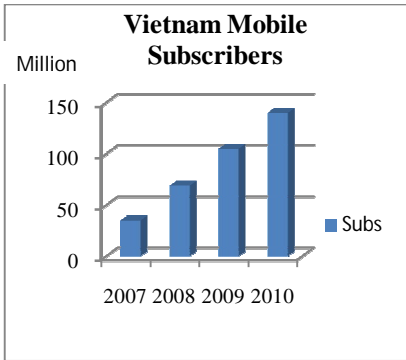
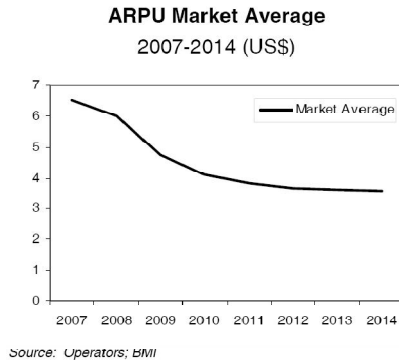


Figure 3.1. Mobile market development

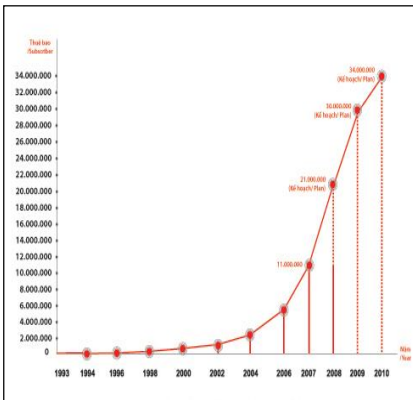


Sources: MIC 2010

3.1.2 About Vietnam Mobile Service Company (VMS)

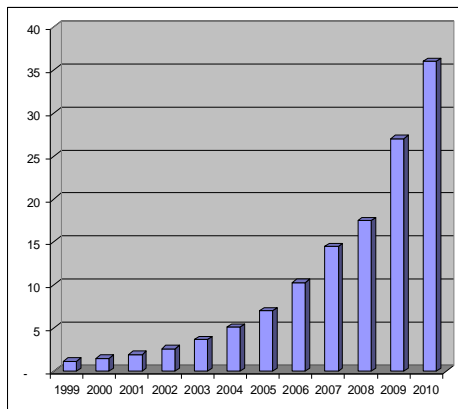
Vietnam Mobile Telecom Services Company – VMS was founded in April 16th 1993, be the first GMS 900/1800 mobile telephony services provider in the brand name MobiFone.

Now, after 17 years operation, MobiFone has currently more than 38,000 subscribers and more than 18,000 BTS with the revenue 2010 expected to over USD 1.5 trillion.



Sources: VMS

Figure 3.5. Total subscribers



(VND thousand billion)

Figure 3.6. Revenue*

(Including promotion revenue)

However, with the high speed of increasing subscribers and the big numbers of inactive SIM, like many other operators, ARPU of MobiFone subscribers is on decreasing trend. It is head ache for VMS's BOD to find the way to increase revenue and profit in balance. Apart from creating many new value added services, they are now beginning with many other ways as:

distribution payment method via their scratch card, distribution game top up via their system, etc.

3.2 Mobile money – Opportunities for VMS

3.2.1 Market analysis

3.2.1. 1 Opportunities of mobile money services to bank the unbanked

Firstly, the impressive mobile penetration up to 160% while the financial services penetration just around 29% is significant opportunity for VMS to create profitable services for the unbanked.

Secondly, 70% of the Vietnam population is the rural population with low infrastructure condition and very limitation of financial services but high demand to send money back on a regular basis to family.

Moreover, in contrast with the limit transportation and infrastructure the coverage of mobile network now is good enough for mobile money.

Fourthly, SMS literacy is a good point in Vietnam to develop mobile money with 90% of the MobiFone subscribers use SMS services.

Fifthly, Vietnam was one of the top 20 remittance-recipient countries with more than US\$7 billion volume that consists up to nearly 8% of the GDP. That is an advantage to develop international remittance.

Last but not least, with more than 140,000 Mobile agents, VMS has a very wide agent networks to develop business.

About some figure of the domestic financial flow, Vietnam has \$78,592 million in Cash Payments in 2009. It is a large and potential.

3.2.1. 2 How should Mobile money in Vietnam be?

There are many payment companies starting with some kinds of e-wallets and m-wallet like payoo, mobivi, MService, Vietpay, VNPT epay. In term of mobile operators, Viettel cooperated with Vietcombank and Smartlink to launch Pay-plus – a mobile wallet service enable Viettel subscribers to transfer money (to another pay-plus user, to bank account), make payment (water, electric and telecom bills), and buy online for some services like games online... Vinaphone also launched the same services called Momo in their cooperation with M-Service Payment Company and Vietcombank. This kind of service offer a new mobile commerce method on mobile, but not really a real mobile money because customers still have to have a bank account to make cashing out. That mean, it still target to banking customers – 10% of the market. The unbanked is still left behind. So, VMS should consider that when deploy mobile money rather than focus on e-payment like many e-wallet now.

3.2.1. 3 How to pricing the unbanked?

As some researches of CGAP 2010, mobile money is 19% cheaper than comparable bank services overall and 38% cheaper at lower values.

Researches from 16 branchless banking, average transaction value is around \$69. At that value, branchless banking price is around 3.1% while other options price is 6.7%.

Looking at banking price and post office fee for money transfer in Vietnam now, the pricing rate of 0,02-01% of money transfer above seems to be a small rate but the minimum rate is of \$0.5-\$1. So for small transaction they are actually high from 3.33% to 6.67% (figure 3.12.).

	Low	Medium	High
Average amount of money transfer	\$15	\$30	\$50
Banking price (min)	\$0.50-\$1	\$0.50-\$1	\$0.50-\$1
<i>As percentage</i>	3.33%-6.67%	1.67%-3.34%	1%-2%
Post office/ bus price	\$1.00	\$1.00	\$1.00
<i>As percentage</i>	6.7%	3.3%	2.0%

Figure 3.12. Vietnam money transfer pricing for unbanked

Moreover, the bank services need maintaining account with minimum of \$2.5-\$5.

Conclusion:

- Service provides recommend should be: deposit, withdrawal, buy top up, bill payment, send money, receive money, and balance inquiry.
- Services fee structure should be:
 - Deposit, balance inquiry: free.
 - Bill payment, send money, receive money: Flat (\$0.1-0.3/transaction).
 - Cash out: Tier (2-4%).

3.2.2 Regulation condition

Vietnam now not yet has a clear legal frame work for this kind of mobile money services. Under decree 64/2001/NĐ-CP dated 20th September 2001 adopted by the Government on payment operation made through settlement service providers, payment providers now not limit only in bank and financial institutions but also other organization has ability. But it still hasn't any further guide yet. So, with the lack of legal frame work stated above, many payment institutions in order to achieve their strategy in e-payment services asked for State bank of Vietnam to get the license to pilot e-payment services since 2008. Until now, there have 6 licenses issued for payment institutions to start these services.

There are two ways to get that license as follow:

- VMS can get it their own like some payment did, (with the assistant of IFC lobby the State bank of Vietnam to get the full license to be payment providers). (As Philippines).
- VMS partnership with banks to use their licenses.

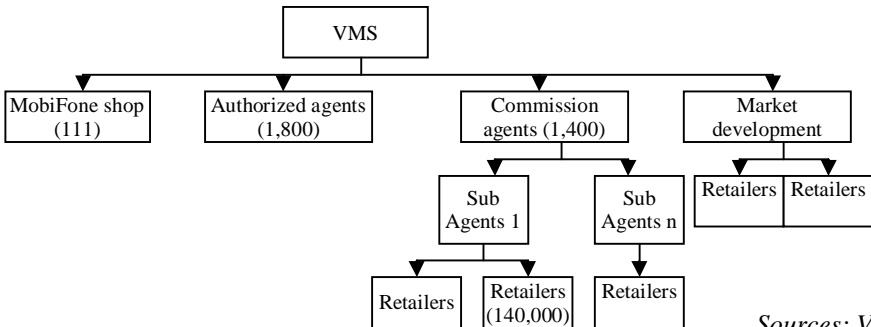
3.2.3 Technical and IS

VMS are now has partnership with both payment companies and banks to distribute airtime and services. The method of distributing airtime is vary from top up via web, special menu SIM, ATM, SMS, POS, application on your mobile, bank account, etc.. VMS connected directly with Dong A bank, Vietcombank and via 3rd parties to other banks.

With current system, VMS currently has 2 types of accounts in their network are: mobile account and MobiEZ account (sales account); This June 2011, the system is improved to assist other types of account, including mobile wallet account. So, with current system, VMS has no difficulties in developing mobile money business. MobiEZ account is integrated in a special type of SIM Card called MobiEz Sim. This kind of SIM use a special menu communicates to VMS network via SMS to follow command of sales person to top up for MobiFone subscribers. This network now has more than 90.000 agents nationwide. They create an average of 400.000 transactions per day contributing nearly 20% of prepaid card sales volume of MobiFone. That experiences show that SIM is a effective method to deploy mobile money services.

3.2.4 Distribution channel

3.2.4.1 VMS Distribution channel



Sources: VMS

Figure 3.15. VMS distribution channel

3.2.4.2 Develop mobile money distribution channel

It makes sense for VMS to leverage at least parts of their existing 140,000 airtime outlets network when building a mobile money agent network because they have the same characteristics and value: Ubiquity, Trustworthiness, Low-cost and Liquidity. Besides, VMS need to think about mobile money distribution as a separate challenge from airtime distribution base on some principals:

Ability to maintain sufficient cash and e-money float balances..

Strategic retail locations: VMS can use current local retail chains: supermarket, drug store, post office.

Distribution Model: Applying current networks, VMS can use MobiFone shop and authorized agents as mobile money agents (direct agents). For others, VMS can develop aggregator Model, using master agents to speed the development of agents and easy to manage float. This model is similar to MobiEZ agents Model in VMS now.

3.2.4.3 Incentive policies

Usually, agents are paid for: cash-in, cash-out, customer registration.

Agents' commission:

Customer registration: should be flat fee commission to give agents revenue at the beginning of a deployment. However, this fee, or a part of it, is paid out only after the customer has performed her first transaction.

Cash in and cash out: VMS can choose to pay commissions in tier based to leverage the advantage of pricing to small transaction. And as an experience benchmark, the average pricing is around 2% (for an average transaction of \$50) and cash out commission is double cash in.

Master agents' commission: Commission of master agents on managing agents should be on the range of 30-40% of commissions earned with the agents.

3.3 Research Findings

The market research was done on 280 target consumers: medium income wide spread the country both in rural (48%) and city (52%). They are all MobiFone subscribers, at the average age of 39. The research finds out some suggestion/opportunities to implement mobile money for VMS.

3.3.1 Customers' demand

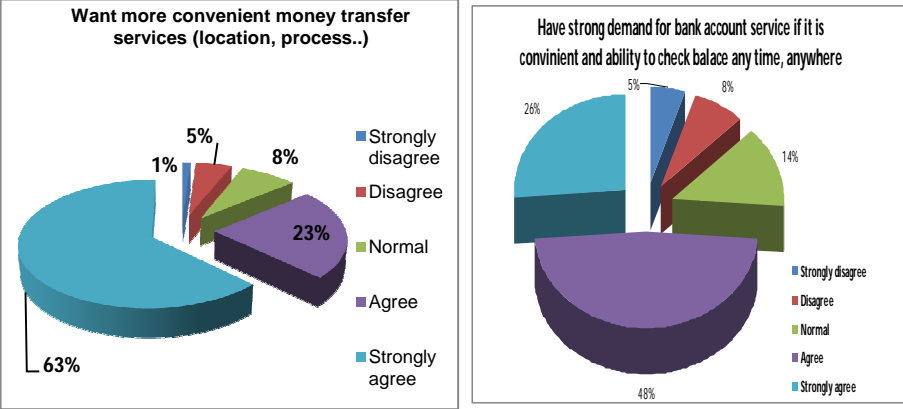


Figure 3.24. Consumers demand on bank account services

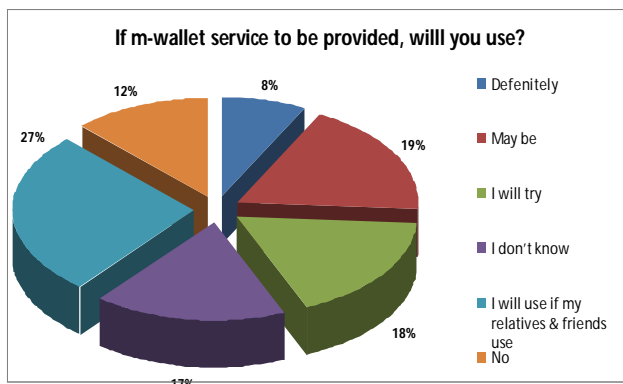


Figure 3.25. Consumers interests in mobile money services

The market research also proved the existing of consumers' demand for an easier and more convenient money transfer services. Currently they have to transport to bank/post office/ microfinance institutions/ bus station to send/receive money. So, they don't want to transfer small transaction because of time consuming and expensive cost. In fact, the need of small transfer transaction is much higher than current. If the convenience is improved, those transactions are potential to boast.

The research show the viral symptom: the willing to use of consumers depends much on the developing of the agents and the using of their friends and relatives. So, a strong campaign right at launch is needed.

3.3.2 *Products offering and pricing*

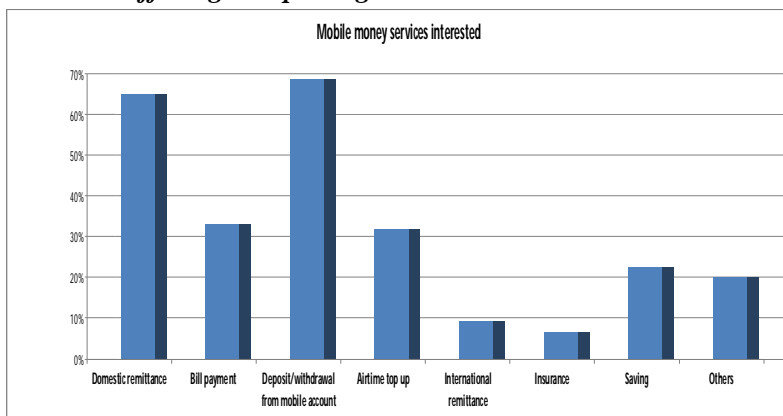


Figure 3.27. Mobile money services interested rate.

The research also figure out some mobile money services that consumers interest to be implemented: domestic remittance, deposit/withdrawal from mobile account, bill payment, airtime top up. After that, VMS could consider to introduce some others like: international remittance, insurance, pay roll..

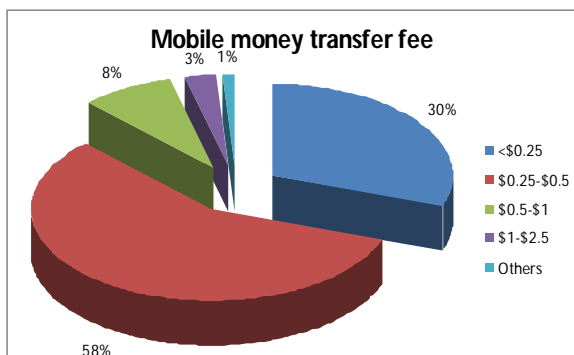


Figure 3.30. Expected mobile money transfer services transaction/ fee

On the price aspects, current cost of transfer money is relative high because the cost for consumer includes the travel cost.

With mobile money transfer, customers expect the price is below \$0.5/transaction – calculating with the average transaction value under \$25 (target transaction for this services), it is about 2.4%/transaction. This rate is possible to provide at the author’s initial calculation and also similar to experience in MPESA (Kenya) (around 2%).

3.3.3 Retailers’ interest

M-PESA vs Airtime (USD): 19 agents representing 125 M-PESA shops		
	Airtime	M-PESA
Capital	129	1,605
REVENUE		
Gross revenue	3.77	16.11
# trans / day	163	87
Avg ticket size	0.46	16.95
Margin	5.0%	1.1%
EXPENSE	2.22	11.10
Liquidity mgmt	-	3.82
Space (rent + util)	0.73	0.73
Wages	1.21	1.21
Taxes	-	3.38
Cost of capital	0.28	1.95
PROFIT	1.55	5.01
ROI	373%	97%

	Airtime	Mobile money
Capital	\$52.5	\$200
Gross revenue	\$3.3	\$5.0
<i>Trans/day</i>	35	20
<i>Trans value</i>	\$1.5	\$25
Margin	6.36%	3.33%
EXPENSE	\$1.86	\$3.40
Liquidity mgmt		\$1.50
Space (rent/cost)	\$0.33	\$0.33
Wages	\$1.50	\$1.50
Cost of capital	\$0.02	\$0.06
PROFIT	\$1.49	\$1.60
ROI	1019%	385%

VMS calculation 2010

MPESA calculation by CGAP 2010

Table 3.1. VMS & MPESA calculation on mobile money retailers’ gross revenue

Taking a research on 160 retailers which has experience of more than 3 years, average sale volume of around \$160/days, we found out their interest in mobile money services and their possibility to be retailer of these services.

However, their gross revenue expectation of the services is around \$3.5. Base on some data from current activities of distribute airtime top up of VMS and experience of MPESA in Kenya, this number is acquirable (MPESA calculation in 2010 gave gross revenue number of MPESA retailer is \$16.11, VMS projection is around \$5).

Chapter 4: Mobile money business development proposal for VMS

4.1 Mobile money business development proposal for VMS

4.1.1 Partnership model

Due to legal limitation, VMS should partnership with a bank/payment institution to use their license. Otherwise, VMS can try to achieve license themselves especially with the support from the Worldbank and IFC program to help the unbanked reach financial services.

4.1.2 Market strategy

4.1.2.1 Products: Mobi-Cash

Product development progress is recommended by 3 phases:

	Launch phase	Adoption phase	Maturity phase
Objective	Massive usage potential features to drive service awareness and enrolment	Value proposition enhancement through additional features to enrich the service and boost revenues	Upgrade of the service, full coverage both urban and rural areas.
Select services	<ul style="list-style-type: none"> • Cash in/cash out; • Domestic money transfer; • Transfer money to/from bank account; • Airtime top up; • Account management; 	<ul style="list-style-type: none"> • Bill payment; 	<ul style="list-style-type: none"> • International remittance (with additional corridors); • Financial services: Mobile banking, integrate with microfinance services; • B2B features: salary payments, applicant store;
Timing	0-6 months	6-18 months	18-36 months
Addition requirement	Partnership with a bank to get use of banking license and get connection to provide money transfer to/from bank account.	Connection with services suppliers to be their fee collection agents.	<ul style="list-style-type: none"> • Partnership & connect with international money transfer company to provide international remittance service. • Partnership with businesses to get other features: salary payments, applicant store.

Table 4.1. VMS mobile money product development progress

These above products should be provided in simple and easy to use with clear explainable by marketing documents and agent networks. And they should be included in SIM Menu to be familiar to customers' habit.

4.1.2. 2 Marketing

Due to new services are far more complex than other VAS, VMS marketing strategy for mobile money should develop a business brand (*Mobicash*) and awareness- raising with very clear and specific simple message (For example, "*send money home*"). And when designing marketing campaign, VMS should create consumer belief of: safety, price, convenience and simplicity.

For major cities, VMS marketing should as usual include above-the-line-advertising, billboards, campaigns and events. Initial marketing featured and targeted the focus market segment like wealthier city to create an aspirational image for services and avoid any chance that it would be considered a low-value product. For rural and remote regions where there is a lack of marketing channels, VMS can use some method like: word of mouth, community leader, agents, road shows, media.

4.1.2. 3 Service pricing and agent commission

With the research in previous chapter, 58% consumers accept price below 10,000 VND/trans and agents expect for average revenue around 70,000 VND/day. So, on international experiences and market researches, the writer recommends VMS's fee & commission structure:

<i>Unit: 10,000 VND</i>	Non cash trans	10-500	500-1,000	1,000-5,000	5,000-10,000	10,000-20,000
Customer tariff (paid out of their mobile wallet account)						
Customer registration	-					
Show balance	0.2					
Change PIN	1					
Deposit		3	4	5	6	9
P2P (to customers)		3	3	3	3	3
P2P (to non-cus)		10	14	20	32	38
Bill payment		2	2	2	2	2
Withdrawal (customers at agents)		5	8	15	26	33
Buy airtime		-2%	-2%	-2%	-2%	-2%
Total gross channel commission (share by super agents and retail outlets)						
Customer registration	20					
Show balance	-					
Change PIN	-					
Deposit		3	5	8	12	14

P2P (to customers)		-	-	-	-	-
P2P (to non-cus)		4	4	4	4	4
Bill payment		-	-	-	-	-
Withdrawal (customers at agents)		5	7	12	20	28
Buy airline		-	-	-	-	-
Commission share for retail outlets						
Customer registration	14					
Show balance	-					
Change PIN	-					
Deposit		2,1	3,5	5,6	8,4	9,8
P2P (to customers)		-	-	-	-	-
P2P (to non-cus)		-	-	-	-	-
Bill payment		-	-	-	-	-
Withdrawal (customers at agents)		3,5	4,9	8,4	14	19,6
Buy airline		-	-	-	-	-

Table 4.2. VMS mobile money price and commission

VMS pay master agents, they pass on to their retails (est 70%).

For transactions below 500.000 VND (majority), we see:

Transaction against cash:

Deposit: MPESA free of charge to customers, but that can lead to uncontrollable of saving transaction where fee for round trip is lower than its commission to agents. So learn from this, VMS should charge some fee for deposit transaction (3.000 VND).

Withdrawal: cost customers = pay to the channel (5.000 VND).

Thus, a round trip saving transaction (1 deposit + 1 withdrawal) cost the customer equal to what the channel gets. VMS don't get any on this.

Electronic transfer of value:

P2P transfers: Each transfer round trips, VMS get 3.000 VND. VMS customers can also send money to non service customers.

Bill payment: Customers enter the biller code on the Mobi-Cash SIM menu to make payment. Mobi-cash charges the same amount for bill regardless of transaction value (2,000). However, in this case, VMS receive other commission for payment

Customers fee (unit: 1000 VND)					
Trans up to	Cost per trans			Round trip cost	
	In	P2P	Out	Saving	trans
500	3	3	5	8	11
1,000	4	3	8	12	15
5,000	5	3	15	20	23
10,000	6	3	26	32	35
20,000	9	3	33	42	45

collection and customers can be offered a discount of their bill (can be up to 5-8% of the bill).

Moreover, customers can buy airtime directly from their mobile wallet, at zero cost – and with around 2% discount. This is a saving to VMS in compare with 7.5% airtime top up commission now.

Non monetary transaction:

Users can register for Mobi-cash for free, but the channel gets 20.000 VND per customer registered. This commission is only fully paid when customer create the 1st transaction. (25% will be paid at registration finish)

Balance inquiry costs the customer 200 VND/times. It can be free but VMS should impose this modest fee to avoid the situation that customers were checking their balance unreasonably frequently.

Change PIN cost customers 1.000 VND/times.

With those above pricing and commission structure, VMS retailer with the average of 20 transaction a

Agent commission (unit: 1000 VND)					
Trans up to	Commission per trans			On Round trip	
	In	P2P	Out	Saving	trans
500	3	0	5	8	8
1,000	5	0	7	12	12
5,000	8	0	12	20	20
10,000	12	0	20	32	32
20,000	14	0	28	42	42

Table 4.3. VMS price & commission analysis for round trip transaction

Mobile money	
Capital	3,000
Gross revenue	106
Trans/day	20
Deposit (35%)	7
Withdrawal (65%)	13
Average trans value	500
Average commission per trans	5.3
Deposit	4
Withdrawal	6
Expense (leave out other expense)	31.8
Liquidity mgmt	31.8
Gross revenue after super agents share	74.2

Table 4.4. Mobi-cash retailer revenue analysis

day (in which 35% deposit, 65% withdrawal) can receive gross revenue of 74,200 VND/day with a capital investment of 3,000,000 VND.

4.1.3 Distribution

To develop a good distribution network, VMS should build four elements into its channel management execution strategy: (i) engaging intermediaries to help manage the individual stores; (ii) ensuring that outlets were sufficiently incentivized to actively promote the service; (iii) maintaining tight control over the customer experience; and (iv) developing several different methods for stores to re-balance their stocks.

To engage intermediaries, VMS use aggregate models. At launch, VMS should create networks of around 20-25 master dealers to build around 2.000-2.500 outlets nationwide divided by regions (5 VMS centers). The next is the developing customers. Then, final phase is the numbers of outlets will be growth in parallel with number of customers (with the rate around 1:30) to ensure wealthy agent networks.

To maintaining tight control over the customer experience, VMS should ensured the quality of services by investing heavily in store training and on-site supervision (currently do the same via Vira).

Mobi-cash customers can also go to bank’s branch to do cash in/cash out transaction and withdrawal money from ATM to make withdrawals.

By far the biggest challenge faced by Mobi-cash stores is maintaining enough liquidity. VMS can use one of these methods:

- 1) Master Agent provides direct cash support to stores: the store clerk comes to the master agent to deliver or offload cash, or the master agent sends cash runners to the store to perform these functions.
- 2) Master Agent and stores use their respective bank accounts: similar to 1) but via bank branches/account instead of cash.

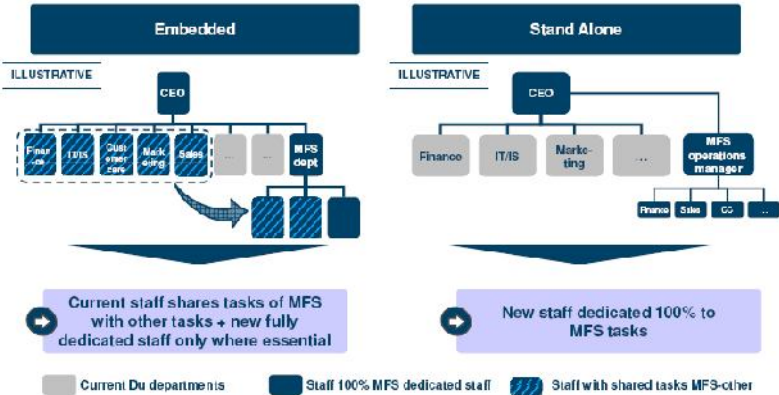


Figure 4.2. Mobi-cash organizational structure models

4.1.4 Business organizational structure

To deploy this business, VMS has 2 choices of organizational structure: embedded and stand alone business (figure 4.2). With the limit number of officer policy, embedded model seems to be suitable.

4.2Risks & challenges for VMS when deploy mobile money services

First, the regulatory limitations can create difficulties for VMS when propose for license themselves. If partnership, VMS may have concerns with relationship management (benefit sharing). Moreover, there would be some

strict regulations on KYC, AML/CFT requirement) that cause difficulties for VMS to quickly develop large number of customers.

Secondly, services in Vietnam mobile market in general and mobile money in particular, with the high percentage of inactive subscribers, the investment on system license might be ineffectively.

Thirdly, the lack of technical interoperability and security remains an important issue that needs to be addressed soon from the initial. The quality of security is the necessary and challenge for VMS.

The last but not least, the competition among other MNOs when they also launch the same business. Competition for customers and agents is likely to grow as more entrants join the field. Then the price will be more competitive and profit margin will be lower. As the result, the return will be not as expected.

4.3 Recommendations for Theory

This study provides an empirical investigation of establishing theory regarding mobile money services opportunities in emerging countries; how to develop mobile money business in a Vietnam mobile network.

4.4 Recommendations for Further Research

There are some topics for a future studies: Which services of mobile money application do consumers more demand?; How to apply NFC technology in mobile money for further mobile payment services?
