New Service Development using Platform Framework: International Top Up and Money Remittance

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In Telecommunication market, voice business generated most of revenue in the past. However, development of mobile network changed the scenario dominated by voice to data business that allowed new service emergence such as SMS (short message service). Using an international mobile network and SMS platform, new value added services were created: Mobile Top Up and Money Remittance. The research goal is to discuss new service design and framework management using business oriented platform, integrating market segmentation, value proposition, service platform and core competencies. All those factors are essential for the success of new service development and case study shows perfect combination between SMS, distribution and banking services.

Keywords: service design, platform framework, value proposition, market segmentation, core competency

1 Introduction

The role of Program and Project Management, hereunder P2M is to create project and enterprise mechanism, embodying whole business [1]. What differs from traditional Project Management Body of Knowledge (PMBOK) point of view is that it only focus on project management, project goals and objectives while sticking to conventional project constraints such as scope, quality, time and budget, optimizing allocation of scarce resources to succeed project completion [2]. Therefore, this article tries to apply P2M approach to service field, which is the most fast growing industry in the world. Indeed its growth, platform innovation researches are focused on physical products and system developments. For our research, the main question is how to design new services through platform framework management. Based on P2M concept, we will design new service using platform framework management consisted by components integration: market segmentation, value proposition, service platform and core competencies. The most important is not treating each component as independent factor, but treating as mutual related factors to interact in whole business.

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2 Platform Definition

Platform is traditionally defined as design of common architectures formed by subsystems and subsystems interfaces that interact between them, developing and producing derivative products. [3, 4] For our research, we broadened platform definition not only for products, but also for services that explore business opportunities and leverage new market development, based on competencies and value propositions.

3 Platform Framework

As discussed in prior section, the platform framework concept extends from market analysis to firm’s core competencies. The main platform framework components are: market segmentation, value proposition, service platform and core competencies that are depicted in Figure 1.

![Figure 1 Platform Framework](image)

3.1 Market Segmentation

In first place, market segmentation is important to position service within the market, by analyzing customer’s behavior and expectations. Although conventional strategies focus on service or product market positioning, its competitor analysis and performance within the same existing market segment, insights of value creation is proposed to create new market spaces, turning irrelevant existing competition [5]. Furthermore, it is essential to search new business opportunities beyond existing
market, eliminating myopic vision and stop benchmarking the same environment as competitors. New market approach means not only target medium and high-income consumers, but also target new layer of consumers consisted of low-income consumers where poorest people represent two-third of population in the world that is estimated about 4 billion people. To approach those people, it is necessary to reevaluate price-performance relationship, small-scale and well-distributed operations, and world-scale capabilities [6]. There is a bias that low-income people are not consumers and market target should be allocated to those medium and high-income people. Hence pre-requisites for consumption are fulfilled, the poor becomes very attractive market and business opportunity will surge.

3.2 Value Proposition

Term value is used for customer’s point of view, the way in which customers evaluate value in receiving value added services. Zeithaml (1988) defines customer value as “overall assessment of the utility of a product based on perceptions of what is received and what is given”. Also it is defined as a measure of perceived trade-off between what customers must contribute and what they receive in return [7]. Second component, value proposition is set of benefits that customer will receive in return of payment. Our focus is value creation to the customer, implementing business and market-oriented solutions. There is no need for state of the art advanced technology to capture customers’ heart, what we need is detailed customer value perception, by analyzing customer behavior and expectations. The value proposition for mobile network users are anytime, anywhere that guarantee user convenience. This convenience permitted new service and product creation with mobile network development, and in return contributed to generate new revenue sources. Once identified new market spaces and value proposition are recognized, next step is to construct new business model using service platform.

3.3 Service Platform

Service platform is an extension of product platform that is defined as common architectures that derive multiple products that are implemented with common subsystems and subsystem interfaces [8] In summary, services are also considered systems, comprising into subsystems interacting between them, through interfaces (circles in figure 1) that allows flow of knowledge and information between service providers and service users [4]. Development of new platforms can be performed at specific subsystems, where subsystems are classified into supporting subsystems and
core subsystem. Benefits of platform concept is low deployment cost to develop product or service families, which are group of closely related product/service, and short market-in lead time, due to subsystem reuse [9].

3.4 Core Competency

Core competencies are capabilities that the firm controls and that provide competitive differentiation [10], those core competencies in the context of new service development comprise skills and assets in understanding the market, service technology, process technology and distribution capabilities [4]. In general, it is common to have partnership for complementary skills and capabilities to complete the service value chain. Methods to identify a core competency within the company are: provide access to large variety of markets, contribute for perceived product benefits to the customers and at last, difficult to imitate by competitors.


4.1 SMS Platform background

Mobile Network grew rapidly, if compared to fixed network, which took over 100 years to develop from its invention. Main reason for mobile network increase is its value proposition: anytime and anywhere. Other factor that contributed for network expansion is low initial investment, compared to fixed network: hence antenna installation covers many users to communicate simultaneously, there is no need to pull physical circuit to each subscriber. Initially, mobile network was designed to those high-income consumers segmented as classes A an B in socio-economic hierarchy, nobody paid attention to low-income people that they might be potential consumers. By considering the above background, the prevailing payment system was postpaid system. Those consumers situated at Bottom of Pyramid (BOP), primarily consisted from class D, willing to have the same service convenience of those located at top of pyramid, demanded for the mobile service. Mobile operators to prevent from payment default risk, created new payment category called prepaid system, where its characteristic consists of affordability in terms of price (low denomination price), access to obtain the service (easy, convenient payment systems and affordable mobile handset price, delimited to basic functions) and availability of service (wide efficient distribution channel), because most of BOP consumers decide to purchase by questioning how much cash they have in that moment [11]. Meanwhile, SMS is considered another
innovation in mobile network, besides prepaid system, where users are able to communicate at low cost (In Philippines, each SMS transmitted to domestic user costs 1 Peso per message, while conventional mobile phone call costs 6.5 Pesos per minute). At the beginning, SMS were engineered for service maintenance, but its asynchronous communication allowed users to communicate without voice calls, bringing communication convenience, especially where voice communication is not allowed such as public community spaces. Also, SMS transmission priority is considered low, compared to voice, which packet losses or packet discontinuity means voice quality deterioration. In case of SMS, even packets are discontinuous and non-real time sequences a communication is established. Other characteristic of SMS is extremely small packets size to transmit text. Figure 2 shows new market emergence by targeting BOP to promote affordable services as prepaid system and SMS. Definitely, they were breakthrough innovation in mobile network. Additionally, mobile operators are searching new business opportunities to expand its business.

![Socio-Economic Pyramid](image)

Figure 2 Mobile Prepayment and SMS leverage BOP to create new market

4.2 Service Description

The mobile top up service is also denominated airtime recharge system that allows users to recharge their prepaid mobiles without physical recharge vouchers. The major mobile operators in Philippines, Globe Telecom and Smart Communications Inc., introduced prepaid mobile reload system, respectively under Smart Load and Share A Load brand name. This electronic airtime transfer system uses SMS platform, where transfer command is sent using text messages. Success of reloads system created incentive to expand internationally, where large portion of Filipinos are working abroad, contributing to bring foreign currency into Philippines. Strategically, smaller denominations as P30 and P60 were created to lower entry barrier for reload mechanism. Denominations available today are: P30, P60, P115, P200, P300, P500 and P1000 for Smart and P100, P300, P500 and P1000 for Globe. This electronic system
approach reduced necessities to keep physical reload cards in inventory, reduced drastically distribution and administration costs of those cards in the supply chain. Also it benefited from broadening distribution channel, from big resellers to small sari-sari shops. At the same time, Smart created Smart Money for both pre-paid and post-paid users, the first electronic cash card linked to the mobile phone in the world, in partnership with Mastercard. Users are able to use smart money card as debit card to pay goods in retail shops and restaurants, in addition withdraw money in ATMs. Afterwards, Globe created similar service denominated G-Cash. Influx of money used to be from high GDP countries to low GDP countries, in other words, from worker who has income in strong currency to their families in Philippines. Most of Filipinos are working overseas like Japan, Hong Kong, Saudi Arabia, United Arab Emirates, Singapore, Italy and Taiwan [12]. Design of the service were designated targeting this low income Filipino market that has culture to purchase goods and services in small quantities and consequently, paying small amounts. The remittance transaction cost used to be high in banks, even remitting small money amount. Another advantage is real time transaction, while banks used to take days to complete the transaction. Mobile operators saw this business opportunity to fulfill customer’s need and furnish them new service with low remittance cost and real time transaction. In order to operation become feasible and detour banking regulatory issues, mobile operators joined strategic allies as Mastercard and banking institutions to allow money remittance. In several countries, still there are strict banking regulations that allow only those financial institutions to remit money to avoid money launderings. Top up and money remittance services were successful formulating new service approach and key success factors are: low transaction cost, large distribution network, small affordable packaging and value pricing. Both airtime top up and money remittance system derived from SMS platform. The concept is to use existing international mobile network to deliver text message, informing the airtime or remittance amount to be transferred to destination mobile number in Philippines. Technically, the transaction is done, using simple object access protocol (SOAP) and HTML to exchange data between service provider and suppliers.

4.3 SMS Platform Framework

According to platform framework diagram, the key components are market, value proposition, service platform and core competencies. We will analyze each component to study SMS platform. SMS platform framework is showed in Figure 3.
The target market segment is OFW (Oversea Filipino Worker) estimated in 1.5 million workers (2006), besides who are already residents in oversea country. In 2006, remittance amount to their home country was approximately 102.0 billion Pesos [12], mainly remitted through financial institutions such as Philippine National Bank (PNB), Banco de Oro, Metrobank, Western Union and others. Traditional remittance demands high inter-banking transaction fees. Parallel to money remittance services, top up services target those OFWs to credit airtime for their families and friends.

Once customer needs are identified into specific market segment, next question is how to create value, incentive customers to use proposed services. As previously described, the main value proposition of mobile network is its service availability at anytime and anywhere. Mobile operators identifies following key factors to be competitive as coverage, price, simplicity of offer, ease of paying, mobile phones offered, loyalty programs, flexibility of offer, operator brand, channels and advanced services [13]. On the other hand, what most users consider primordial are basic values such as simplicity, price and convenience. Those basic values were reflected when designing the service platform for international top up and money remittance services. Although a mobile operator identifies potential values, barely those values do not match real values desired by customers.

Service Platform consists of core subsystem and supporting subsystem. In mobile network, main core subsystem is calling service that involves voice and data switching capabilities and protocol exchange. Supporting subsystem consists in two parts: operation support system (OSS) and business support system (BSS). OSS is responsible for network and switching related functions, involving management, maintenance,
configuration and provision functionalities. Meanwhile BSS deals business related processes as billing, Customer Relationship Management (CRM), receiving, invoice, report, Interactive Voice Reply (IVR) subsystems. Independency of subsystem permits its reuse and evolution. Modular approach allows different kind of solutions that are incorporated into service platform. Diagram below shows complete process flow of SMS service platform. When modular approach is adopted, interfaces should be carefully designed and customized to permit perfect harmony between technical subsystems and business requirements.

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(1) Customer requests for a credit transfer.
   (top up/money remittance)

   Customer (Origin) --> Service Provider

   (8) Receive notification
   (Success/Failure)

   (3) Send request to Mobile Operator

   Communication:
   Http Get/Post
   xml, soap
   using SSL channels

   Overseas

   (2) Remove credit from customer account

   (7) Receive Confirmation from destination company/mobile

   Mobile Operator

   (4) Send request to Financial Institution

   Financial Institution

   (5) Withdraw $$$

   Customer (Destination) (Top Up)

   Philippines

   (6) Send credit to destination mobile

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Figure 4. Service Platform Flow Description

In case of SMS platform, Philippine mobile operators played the role to understand customer unfilled needs and grasp business opportunities to develop new services. Strategic alliance between oversea service providers, who own strong marketing skills, mobile operators that possess network capabilities and financial institutions with banking and money remittance knowledge leveraged new value added service. It is important to emphasize short service development time, because each party can
concentrate on its core competency to develop subsystems.

5 Implications and Conclusion

Although SMS platform based services created new value to the users, the revenue is still small if compared to the voice business. Mobile operators and application providers are looking for next innovation that helps them to keep growing in the future. Some attempts were introduced as wireless application platform (WAP) and multimedia messaging system (MMS), which failed to generate more revenue to the mobile businesses. Challenge of mobile operators is to create value added services that might overcome voice revenue and keep sustainable business growth.

For new service development, it is essential to identify perceived and latent needs of customers, which key factors they consider most valuable. Once those needs and values are identified, service platform is designed and architecture is constructed. It is interesting to observe that not always a value perception for the telecommunication operators is not the same as consumer value perception. Mobile operators saw business opportunities, segmented market and developed international top up and money remittance services reusing SMS platform components. There were perfect collaboration and cooperation to aggregate mobile network, distribution and financial fields, each player executing important role based on its core competencies. Also, there is international top up and money remittance platform application opportunity, expanding platform to other ethnic markets as Indonesia, Sri Lanka, Thailand and Brazil.

References


