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Fundamo: A Pioneer in Mobile Payments Service

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ABSTRACT

Fundamo, named after "fundamentally mobile", a company avant-garde in mobile payments service. The concept was very visionary, ambitious, introspective and "before its time" as most mobile phones could not even send SMS's during those days. The founder's vision was to become the world's No.1 mobile financial service provider. This case study confabulates Fundamo's inspiring journey that embrace: (i) mobile payments (MP) evolution that took place almost in parallel with the inception of Fundamo, (ii) being an avant-garde in MP, the company had own story to reveal, (iii) an entrepreneurial philosophy and sustainable lean culture that focused on incessant innovation to drive results, (iv) a new concept of ownership culture that contrived competitors, (v)conceived contributory barriers for environment for customer support and service to effectuate client satisfaction to ensure loyalty, (vi) insight into how the company became the World's no.1 mobile financial service provider, (vii) a holistic advent to innovation that built trust with key partners those who were instrumental ininfluencing end users globally, (viii) the execution of lean canvas model (LCM) particularly the unique value proposition (UVP) configuration that offered the value elements (trust, ease of use, cost & reach) to partners, (ix) a leap beyond faith---how solutions allowed end-users to transact ubiquitously using a card, computer or mobile device, and (x) a dream came true when the global giant Visa acquired Fundamo for US\$110 million which is a living testimony to the theory that the whole is greater than the sum of its parts.

Keywords-- Fundamo, Mobile Payments, Innovation, Lean Canvas Model

I. INTRODUCTION

Historically, human beings have depended on some sort of payment system. Mobile payments based on the concept of mobile commerce (m-commerce) or mobile wireless payments have been evolving, as shown in figure 1, since 1997. Later, in the year 1999 two of the biggest m-

commerce platforms were launched. This saw the national m-payments system that was launched by Smart as Smart Money which was a Philippines based commercial platform. Apart from this, the launch of the iModewas the first of its kind internet mobile platform by NTT DoCoMo, Japan. In the year 2000 mobile parking was launched in Norway. Easy park and Q-park offer the drivers in Norway to park their cars across the country and payment was done by mobile phone. Another revolutionary concept that occurred in the same year was Austrian mobile tickets for trains. Thus, the transformation of m-commerce kept evolving rapidly. (https://easyparkgroup.com/; https://www.electronicbankingoptions.com).

Cell phones had become so popular that people were using it everywhere, and it didn't matter if you were from the economic middle class or not. For years, Research in Motion's (RIM's) Blackberry controlled the market by marketing primarily to the business community as a productive tool. The mobile payments went about a huge change when the iPhones were introduced by Apple, Inc. in January 2007. Google acquired Android, Inc. and launched Android operating system in 2007. This gave the possibility to add various applications that used mcommerce which was not SMS based but more advanced as well as very e-commerce prominent. This kind of technology used by smartphones allowed the integration of mobile interface with the existent m-commerce to bring about mobile payments. At present, Android operating system holds majority market share in the smartphone market. Ultimately RIM had to declare bankruptcy because of the dominating market share by Apple iPhone and other smartphones using the Android mobile operating system. A recent development is mobile cloud computing (MCC), which is a new platform, new infrastructure, combining cloud computing and mobile networks that bring benefits for mobile users, network operators, as well as cloud computing providers. Cloud computing is a right choice because of its rapid scalability, ubiquitous network access,

on-demand self –service, and other features. An explosion of mobile and handheld devices is also significantly contributing to the world IP (Internet Packet) data traffic which is supported by MCC providers(https://www.thoughts

oncloud.com/2013/06/mobile-cloud-computing, Hossain, S—IBM.;www.mobilemoneyrevolution.co.uk/investors; Mobile Money for the Unbanked).

An estimated 2.5 billion people in lower and middle-income countries in the world are unbanked. The traditional bricks-and-mortar model adopted by most banking and payment providers struggles to serve the poor, and these people are forced to rely instead on informal financial services. However, among the unbanked population, more than one billion people have access to a mobile phone. The number of registered mobile money accounts hit more than 500 million across 84 countries by 2016 (https://ourworldindata.org/grapher/registered-mobile-money-accounts).

Since 2010 mobile network operators (MNOs), and financial institutions (FIs) are looking to consolidate new deals which are only helping the developers of mobile payments to come up with various other applications and platforms. In many developing countries, mobile network operators (MNOs) have unique assets and incentives to deliver these services in a sustainable and scalable way. Mobile money is becoming a strategically important service for a growing number of providers, evidenced by the fact that 70% of providers plan to increase their investment in mobile money in 2018. Africa is a global leader in mobile money accounts, with telecom service providers embracing innovative approaches that allow consumers to pay bills and access financial services including loans, insurance. Nine markets are emerging in Africa (Cameroon, The Democratic Republic of Congo, Gabon, Kenya, Madagascar, Tanzania, Uganda, Zambia and Zimbabwe) with more mobile money accounts than bank accounts. Now the market for mobile payments is huge and wide open, with the possibility of several winners emerging, giving the investors the opportunity to jump into various innovative entrepreneurial ventures before the industry takes off. Entrepreneurship and Innovation is buzzing in the mobile money revolution and transforming business with mobile payments. Within the decade the world has experienced many entrepreneurial ventures that have done game changing innovations in mobile payments sector. One of them was Fundamo(https://www.mobilemoneyrevolution.co.uk/invest Mobile Money for the Unbanked https://www.GSMA.com).

"One thing hasn't changed – Africa, the cradle of mobile financial services, continues to lead the world with a swath of new deployments"- Hannes van Rosenburg, Fundamo founder.

The author contends that the disrupter could be the Blockchain (Digital Ledger Technology) to build a new generation transactional application that will establish trust and transparency while streamlining the business process. The mobile payments will also be used by wearables and not just limited to smart phone or tablet. More than 5 billion users will use mobile phones by the end of 2018. Due to the exponential growth one should expect the mobile payments space to evolve sharply. It is projected that 90 percent of mobile phone users will have made a mobile payment by 2020. To date no global standards regarding mobile payments have emerged but there is a push towards one technology standard for the mobile payments and that could a game changer in future. (https://techcrunch.com/the evolution of mobile payments).



Figure 1. Mobile Payment Evolution

II. AN AVANTGARDEBRAINCHILDENDURED AND THRIVED

Hannesvan Rosenburg, the founder of Fundamo, developed the unique idea during 1999 as an experimental project at Sanlam Group, where he used to work as a Chief Information Officer. When the management at Sanlam group decided to discontinue the project, Hannes raised some money and took the concept out of the Sanlam group and established Fundamo. Fundamo started to build the core of the technology during mid-1999. The first prototypes were run in November 1999. Some of the first applications ran on SIM cards. Fundamo built the first pilot and ran it on both MTN and Vodacom networks. The first pilot run worked. But 2001 was very tough year for Fundamo because the company's idea and technology development were ahead of its time to market. Decisions were taken almost on a month-to-month basis whether to

go on or close the company (https://www.GSMA.com; https://www.MTN.com; https://www.vodacom.co.za).

Looking back, "that was probably good because a lot of people trying to build mobile payment solutions went bust. It was a process of eliminating the weakest."—says Hannes (van Rensburg).

Fundamo had managed to build technology that became a barrier to entry because it was difficult for others to build it and gain the necessary experience. In 2002, Fundamo deployed to its first commercial customer CelTel, in Zambia (Africa). The company has rolled out solutions to customers like MTN and Standard Bank in Africa. The relationship with CelTel, MTN and Standard Bank has continued ever since. (https://en.wikipedia.org/wiki/celtel_Africa;https://www.standardbank.com.)

One of the reasons behind the company's success, marketing director Craig Saks says, that Fundamo has developed real depth and substance in what it has chosen to be good at. Another factor, notes Saks, is that as a business, Fundamo has played well to the strengths of its people, balancing the need to innovate with the need to deliver. Sak contends that "I think that at executive management level, we (Hannes& Saks) do that very well.We have found a good balance between our respective strengths. Hannes drives innovation and keeps the creative tension going, while I turn that creativity into a business and execute forward." strategy (http://www.mobilepaymentsworld.com/mobile-bankingversus-a-mobile-bank-by-craig-saks-coo-fundamo).

In the early days the company's strategy was to focus in the African market and to partners in those regions. After being successful in Africa, the company took a decision to enter markets outside of Africa. Those days there were no dominant players, so Fundamo had a good opportunity to grab market share. It started to operate in African continent first, then entered the Middle East, North America, Europe, Asia-Pacific and Latin America. Fundamo did not turn a profit until 2007 and its major shareholders included Remgro Venifin, Sanlam & HBD Venture Capital endured with Fundamo until Visa acquired the company (https://www.hbd.com).

III. SUSTAINABLE LEAN CULTURE

"Entrepreneurs need to have 'mad belief' in their idea"-says Hannes. From its inception, Fundamo adopted a "sustainable lean culture" and focused on continuous innovation that ensures business results. Hannes is widely considered to be the pioneer of mobile banking. At the helm of the company the founder made sure to identify and attract talented leaders in their respective field with excellent inter-personal skills to form a "dream team" and work as a team to meet the entrepreneurial challenges. The following are the core lessons that came out of Hannes during a candid conversation with the table of

entrepreneurs at the Angel hub meeting in 2011(http://ventureburn.com/2013/02/entrepreneurs-need-to-have-mad-belief-in-their-idea/):

Passion: Beingpassionate about an idea helps one to sell the concept better. Fundamo was originally conceived in 1999, a period in which mobile payments were not an option and seemed an impossible idea. Hannes passion for the technology helped him to see the potential it had. Envisioning a future that few else could, helped him persevere.

Insane belief: Something one cannot seem to stress enough is the importance of believing in the product. Hannes says, "one has to have insane belief in what they do, and encourages entrepreneurs to be unwavering in their belief, because again, they are doing the right thing".

Childlike curiosity: Hannes places a lot of value in having a childlike curiosity, especially when working in technology. During the first days of Fundamo it would have been easy to give up on an idea that no one really understood, where the technology was barely available. A childlike curiosity helps entrepreneurs stay the course, and not give up.

Protect Intellectual Property (IP): The Company owned quite a few patents, aggressively protecting its core technology in every region of the world it is available. The entrepreneur reckons that it is incredibly important for ventures to protect their intellectual property because sometimes it is all they have.

Right investors: Though investors have the capital to invest, Hannes stresses that it is necessary to find the right investor, because the right investor determines the difference between an okay company and a great one. "Yes, investors bring the money, but the right investor will make theventure invincible," Hannes says.

Composition of the leadership team at the entrepreneurial stage included serial entrepreneurs with 180-man years of experience in the mobile financial services market and expertise in entrepreneurial governance, strategic management, marketing & sales, software architect development, accounting & finance, human resources development, and customer support/ services. As the company grew in customer base and revenue, Aletha Ling joined as Chief Operating Officer (COO) in 2005. The succession planning for operational execution took place at the management level and the new team has been instrumental in establishing the company as one of the largest specialist mobile financial services company in the world (http://ventureburn.com/2013/02/entrepreneurs-need-tohave-mad-belief-in-their-idea/).

"A core team of focused and insightful people, and a leadership team that has been at the company fairly consistently over the past few years" —says Saks. After Visa's acquisition of Fundamo, Hannes was promoted to Group Manager, Sub-Saharan Africa in 2011. His responsibilities include Visa's strategic development and

business performance in the region, as well as maintaining his leadership of the company. In 2014, Hannes resigned from Fundamo and decided to retire (http://www.paiementmobile.com/paiement_mobile/2009/07/mobile-payments-talk-with-hannes-van-rensburg-ceo-of-fundamo.html).

IV. OWNERSHIP GENTILITY & AESTHETICISM

The company's mission has been committed to providing best in class technology and excelled in all stages of the technology life cycle, ensuring a continuous flow of improvements by innovating leading-edge concepts, and pioneered client applications. Based on extensive of experience of the technology development provides team, Fundamo's platform flexibility, configurability, scalability, interconnect and security. The Frost & Sullivan Award for Technology Leadership is bestowed each year upon the company that has demonstrated excellence in technology leadership within the industry and Fundamo owned due to gentility and aestheticism of the solutions offered in mobile payment services (http://www.linkedin.com/jobs2/view/4706203).

The product owner concept is a new ideaFundamo created to have a close relationship with the product management team. At Fundamo, the Product owner role is a development team member with career opportunity to grow into either product management or specialist development roles. The purpose of the product owner is to work daily with developers and testers in an agile sprint team in order to meet the team's objectives. The product owner has enough business domain understanding and knowledge to provide engineering teams with the business context, user stories, user cases and business models so that the teams can plan, estimate and execute their development work and be responsible for the enhancement of the content and quality user stories. The product owner also provides input to the support/service team in resolving support/service issues. In summary, the Product owner role isco-located with development teams:focused on product and implementation technologies; responsible for owning the elaboration of features into user stories; and driving the development of sprint iterations.

In 2013, "Monet and Fundamo built an open and collaborative eco-system which benefits all stakeholders of the financial services eco-system in Pakistan. Collaborative mobile financial services, as opposed to FI-led or MNO- led deployment, is the paradigm shift which assisted in creating a bigger and less costly enabling conducive environment for the service providers"-says Ali Abbas Sikander, CEO, Monet (https://www.monet-online.com).

Fundamo separated the product and technology teams from the professional service/support teams, who

worked closely with customers to customize and configure software solutions to specific customer needs. Fundamo made use of a Kanban system to take control of the customer support issues and to drive quality improvements in the development process. The company uses Atlassian's Jira software to track all customer issues. To make the process work well. Fundamo strives to have constant interaction with all stakeholders and put in place prudent policies. The company executes seamless quality support by appointing a support coordinator whose role and responsibility is to maintain the relationship with the stakeholders. Having the single point of contact has also freed the development team to focus on the work. The company believes it is important to ensure effective knowledge transfer to clients and educate them on how to optimize the use of these new technology solutions while allowing clients to apply their own branding and pricing models to them. Using Kanban system, the company achieved the greatest benefit to provide a mechanism to quantitatively measure the effects of any process changes and was able to quantify demand and throughput that ensured support/services queue keeping flow and good turnaround times on customer issues.

Karen Greaves contends that "the greatest benefit to Kanban is that it provides a mechanism to quantitatively measure the effects of any changes in the support/service process" [1].

V. TRUCULENT INSIGHTS

Fundamo was distinguished by its ability to offer specific solutions as well as additional enablers that add value to its mainstream solutions and thereby allow clients to accomplish more. A pioneer in the provision of mobile financial services, Fundamo had very few competitors, partly because it offers an enabling conducive environment unlike some of its closest competitors and seeking to compete with FIs and MNOs. A contributor to Fundamo's success is the extensive set of best practices offered to assist clients (those who are also partners) with the full project lifecycle to ensure successful business delivery. Success on the projects relies on more than reliable technology, it relies on a holistic approach which includes everything from business modelling and product design to the operations management in the long-term. On August 21, 2009 at the entrepreneurial mentorship initiative at Cape Ventures Partners (Cape Town, South Africa), Hannes shared the following secrets of his journey that was lively and peppered with cool insights into—" how Fundamo became world's no.1 financial service provider (http://www.ideate.co.za/2009/08/21/fundamo-no1mobilefinancial-services/):

Have an Insane Idea: Fundamo is an embodiment of an insane idea in the mid 90's. Hannes wanted to use mobile phones as a secure payment device. Once one has an

indispensable idea, nurture it like a baby and work on the real value proposition that the unique idea provides.

Hire the right people and build a dream team: There were only four people involved when Fundamo began. As the company grew, it required different types of talent. The management team became completely different from the original team. Fundamo has been highly focused on sourcing top people with the right type of experience to fulfill the growing needs of the company and market.

*Focus on clients:*One can only be successful if the focus is on clients vehemently. If a client is unhappy, drop everything. Don't stop until the client is happy again. This has suited the company well in the past. When the client succeeds, celebrate with them.

Funding a venture is not about raising money: Let's face it, funding is essential when one wants to become a global leader like Fundamo. Funding is not just about the money. It's more about a relationship and the money is a ticket to that relationship. Choose the funders wisely (not necessarily the other way around) since it is critical to one's success. Funders are the company partners. The funding relationship is like a marriage with all the ups and downs of a typical pairing and has tried to defend its independence from investors.

Build a Business, not a Product: The Company made the first big sale "vloekskoot" – as the founder called it---the team were elated. They believed they sit back and watch the money roll in. It almost killed the company and realized that they needed to ensure that they keep marketing, keep growing business –not tweaking products (http://www.ideate.co.za/2009/08/21/fundamo-no1mobile-financial-services/).

VI. HOLISTIC ADVENT TO INNOVATION

From the inception, the founder of Fundamo recognized the combination of entrepreneurship and innovation holds the key to organizational sustainability in the period of leap change. Fundamo viewed innovation as an immense opportunity to increase the organization's connections with all stakeholders. hence engaged in a holistic manner.

Innovation and entrepreneurship define Fundamo's identity. The founder and leadership team had the knack to discover, understand, acquire and execute innovation in m-commerce specific because of the past extensive experience they had before joining the company. The leadership team understood that mobile money is a powerful driver of innovation and is here to stay and grow. The company's innovation success is testimony to the demand for mobile financial services driven by the needs of 647 million consumers in Africa that do not have a formal bank account. Because of continuous innovations the growth has been created, nurtured and sustained. Loyalty of the partners (those who are also customers)

from inception to present has been achieved by delivering continuous innovative solutions as promised (https://siteresources.worldbank.org/INTWDR2012/Resources/7778105-1299699968583/7786210-1315936222006/Complete-Report.pdf).

"Through [Fundamo] investment, we can increase and accelerate the level & categories of innovation"- Bill Gajda, global head of mobile products at Visa Inc. says

Working with partners globally, as shown in figure 2, Fundamo has played a major role in the development and innovation of the mobile financial services.



Figure 2.Fundamo History, & Innovation

Source: https://www.fundamo.com

Fundamo founder had the vision to foresee and recognize the mobile market dynamics, as indicated in figure 2. As a pioneer, Fundamo's product ownership team executed the strategy to develop software solutions for partners to satisfy the MP market dynamics. The payment market can be examined in terms of payment service providers and technology. Payment service providers typically are mobile network operators (MNOs), financial institutions (FIs), and self-organized entities (SOEs). These actors play an important role and offer payment services. Four cells, as shown in figure 3 & 4, that classifies payment schemes and analyze the market. The cells on the left represent the solutions launched by banks (FIs) and MNOs together or separately. On the right, the cells correspond to the payment systems offered by Self-Organized Entities (SOEs)—the newcomers intermediaries. On the left, payment solutions are based on card technology. On the right, the cells symbolize payment schemes using mobile telephony. The two axes of decomposition provide a better overview of the disruption analysis in the MP market dynamics with its different initiatives. Even if MNOs control the mobile network infrastructure as well as the mobile handset of the user. there are still opportunities for Self-Organized Entities (SOEs)--the newcomers and intermediaries, to offer mobile payment schemes. Usually, these solutions have the advantages of being operator independent. Thus, mobile phone users can register to this type of payment system independently of their MNOs membership [2].



Figure 3. Mobile PaymentMarket Dynamics

As an example, in Germany, Paybox, as shown in figure 3, is one of the most famous mobile payment schemes introduced in the market. The consumer had to register with Paybox in order to use the service. Once the application is approved, the consumer could use the Paybox for a range of transactions, including: payments for e-commerce (person to Person—P2P, Person to Business--- P2B & Business to Business---B2B) transactions, payments to bank accounts and payments in the mobile world (e.g. Taxis). A typical transaction using Paybox would go like this: (i) The customer gives his or her mobile phone number to the merchant, (ii) The merchant transmits to Paybox the phone number and the price, (iii) Paybox calls the customer and a voice message asks for authorization of payment, (iv) The customer authorizes the payment by entering his or her PIN, (v) Paybox informs the Deutsche Bank to settle the payment via the traditional payment system (direct debit), (vi) The transaction is confirmed by an automated voice or SMS. In summary, the customer's requirements for using Paybox are the possession of a mobile phone, a bank account and a Paybox registration. The advantage of such a system is that only the mobile phone number, not the bank account number or credit card details, are transmitted. Therefore, Paybox tries to improve the customer's trust and payment security. Fundamo has partnered with in other European countries to offer several mobile application services via independent mobile systems[2].

Fundamo's payment solutions were designed to provide paybox mobile payment scheme as shown in figure 4.

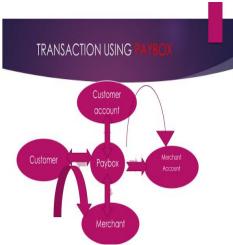


Figure 4, Transaction using paybox

Fundamo had the vision to foresee the huge opportunity of mobile wallet market and envisioned the disruptive potential and had the inkling that "Disruptive Innovation Meteor" will struck the world of retail mobile payments, as indicated in figure 5. In the race to win mobile wallet market share, the company designed the flexible software solutions to meet the scalability, enhanced security and ubiquity. Continuous Innovation enabled Fundamo to deploy over 50 active mobile financial services across 40 countries, serving 50 million registered subscribers [2].

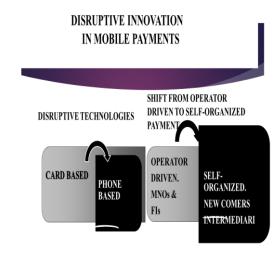


Figure 5. Disruptive Innovation in MP

As shown in Figure 6, the following key partnership (those who are also customers) has been created,nurtured and retained by Fundamo during 2002-2013:

2002- Launched the world's first mobile financial service in a developing economy with Celtel in Zambia.

2007-Concluded a source code agreement with Nasdaq-listed S1 in USA. As a result, S1 subsidiary S1Enterorise has a license to use Fundamo's mobile banking software.

2008-Western Union collaborated with Fundamo for mobile money transfer services for Latin America, Africa, the Middle East, and Asia (https://www.westernunion.com).

2009- In a US\$ 9.7 Million deal, Fundamo has been selected by the MTN [1, 8] group to provide the software platform for its "Mobile Money" service. Mobile Money Management Solutions (MMMS) incorporates the Fundamo Enterprise Mobile Financial services (EMFS) platform and combines it with Accenture's Service Delivery Platform (https://www.accenture.com).



Figure 6. Key Partners & Customers of Fundamo

2010-Telenor Pakistan partnered with the company to deliver a mobile financial service in a market that suffered from a lack of access to bank accounts but benefited from high mobile penetration. World Bank and the Maldives Monetary Authority commissioned payment systems provider Montran along with Fundamo to develop and implement a national, fully interoperable, mobile payment system in Maldives. The company's partnership with Yellow Pepper launched mobile banking and money transfer services in Latin America. Vodafone Qatar and Fundamo launched Vodafone money transfer -the world's first international mobile remittance service. As an IBM partner, Fundamo is the only mobile money service provider that can deliver an IBM expert integrated systems option that has been certified as Ready for IBM Pure Systems(https://www.Telenor.com;

https://www.mma.gov.mv;

https://www.yellowpepper.com;https://www.vodafone.qa).

2011- bKash and Fundamo announced their joint venture to offer financial services in Bangladesh, a market set for hyper growth in mobile financial services. Nigeria's Microfinance Bank, Fortis, & Fundamo announced their partnership to offer accessible financial services to Africa's largest mobile market. Visa acquired Fundamo to

provide hundreds of millions unbanked consumers a VISA account (https://www.facebook.com/FortisMFB; https://www.firstbanknigeria.com).

2012-The company has launched new services—Firstmonie with First Bank of Nigerian Nigeria and Celpay with Celpay International in Uganda and Zambia (https://www.firstbanknigeria.com;

https://www.bizcommunity.com/article/410/78/85259.html)

2013-The Company has been selected by Monet, an independent mobile financial services company, to launch a mobile money network in Pakistan [1, 31]. Unbanked consumers in India and Rwanda are the first to benefit from the service because of Fundamo's mobile enterprise platform (https://www.monet-online.com).

VIII. AN INEXORABLE LOGIC

Fundamo's lean canvas model had anunrelenting logic. Aletha Ling, COO, Fundamo says "A better lean canvas (business) model, as shown in figure 7, often will beat a better idea or technology". The leadership team also understood innovation must include business model, hence started sketching the lean structure. "Lean Canvas (Business) model innovation at Fundamo is not just about technology"—says Hannes (https://www.leanstack.com; https://www.businessmodelgeneration.com).

Problem & Solution

Fundamo identified three top problems and solutions to those problems. The year 2000, the founder Hannes had an inkling of the problems and solutions. Based on experience, he also understood a better lean canvas model often will beat a better idea or technology. Regularly he had brainstorming sessions with the founding team. The company's strategy was to think in the present, even though the cogent vision was to become world's No.1 mobile payment solution provider and executed a lean structure with a "getting things done" attitude.

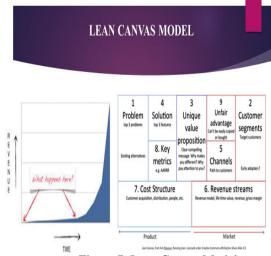


Figure 7. Lean Canvas Model

Source: https://www.leanstack.com

Customer Segments

Fundamo focused on customer centric approach and on early adopters of the product to find out the specific issues on the early adopters and narrowed down the distinguishing characteristics of prototypical customer. First, the market aspects focus on the target customers (early adopters) and the channels to reach them. The company focused on CelTel and six major banks (FIs) in Zambia (Africa). From its inception the target was to focus on emerging markets first and to partner in these regions. The strategy was to focus on the partnering with MNOs, FIs & SOEs so that the model works best. Mobile payments uptake is a global trend, but each market is slightly different. The only way to play successfully in each market is to have strong partnerships in the territories. There were no dominant players, during 2000-2007, so Fundamo had a good opportunity to grab market share.

Unique Value Proposition

Fundamo crafted an innovative secure mobile architecture, the principals of which are still used as a backbone for mobile banking systems today. The company provides value through a single access to the existing payment infrastructure and a transaction platform capable of supporting all kinds of payment methods. As a pioneer, the company's software solution platform has been original and unique in thinking as well as in delivery. It is that authenticity attracted and retains clients as partners who believe in Fundamo's unique value proposition (UVP). The UVP configuration is as follows:

Value Elements - Value offered

Trust - Secure Payment, Control over transactions, Guaranteed Delivery.

Ease of use - Mobile phone as access device, no changes needed in Point of Sale (POS).

Cost - Not different from normal transactions, cheap electronic POS.

Reach - Increasing number of retailers in different countries.

Discussion on Value Elements

Trust---Fundamo leadership team was aware that "trust" is of crucial importance. Therefore, formed alliances with MNOs, FIs and SOEs so that end users deal with their trusted FIs, MNOs and SOEs. The company profited from the generally trusted laws and codes of conduct of FIs/MNOs/SOEs and the relationship already existed between the end users and MNOs/FIs/SOEs.

Ease of Use---For merchants the integration with existing payment products and services is an important issue. They are not all eager to implement a new payment method. Fundamo's solution is the only initiative that presents a convincing case with respect to this value element. The merchants and end users were convinced by MNOs/FIs/SOEs with respect to the "Ease of Use"

Cost---Since Fundamo focused on MNOs, FIs and SOEs, it leaves the promotion of mobile payment to them (MNOs/FIs/SOEs). Not only the company saved the cost

for promotional marketing but also promoted a valuable experience for end users through MNOs/FIs/SOEs.

Reach---Fundamo relied on MNOs/FIs/SOEs to convince merchants and end users regarding the value of mobile payment.

The value creation by Fundamo was so significant that a large multi-national group, like MTN, selected one technology supplier to deploy one solution in every country that the group is in operation. The intention was to deploy Mobile Money (the MTN brand) in each country that MTN is operational during the next three years. Almost halfway through the deployment, Fundamo was very much on track to meet all the deployment milestones. This achievement was made possible because of the flexibility of the platform, the standardization of deployment methodology and the in-depth experience that the company had in deploying solutions in many other countries. The value proposition of mobile payments in mature markets was not clear to Fundamo from the beginning. While it was interesting to offer these types of solutions in first world countries, Fundamo did not pursue the 1st world countries because the company did not foresee a sustainable business model. Experience has taught the Founder Hannes and the leadership team that it is folly to build a business on an assumption that is not sustainable.

Unfair Advantage (Creating Barriers)

One of the interesting aspects of lean structure is to create barriers so that others cannot copy or imitate the unique value proposition. Some of the competitors tried to compete but did not fare well because of Fundamo's authenticity (deliver the deliverables as promised) and the unique flexibility of the software platform. The strategic partnership with MNOs, FIs and SOEs enabled to maintain the sustainable competitive advantage (SCA). One of the attractions to MNOs, FIs & SOEs has been the concept of mobile money was invented by Fundamo and the company's specialization in the mobile payment sector. Fundamo had managed to build technology that became a barrier to entry because it is difficult for others to build it and gain the necessary experience. This is simply because the company managed to grow and thrive in a difficult time. The flexibility (multi-language, multi-currency, multi- device and multi-bank) is one of the competitive advantages of the Fundamo solution. This is especially relevant as we know that almost no mobile payment solution that has been implemented remained static - but required multiple adaptations in order to be successful.

Key Metrics (Key Activities & Partners)

Enterprise Platform Application and development, integration, application management (versioning, & portability checking), infrastructure operation, and support services. Collaboration with value creation partners is one of the key strategies of Fundamo's lean structure business model. Fundamo provides a mobile enterprise platform and application solutions

MNOs/FIs/SOEs that can be used with existing payment methods as well as new payments methods. Because Fundamo is a software platform, it can easily be configured to offer solutions in many different formats and delivery channels. The software supports many different devices, carriers (SIM Cards, & SMS), downloadable applications and browsers. It can be configured to offer solutions to FIs or MNOs or SOEs and can easily integrate to third party solutions and different banking clearing mechanisms. For Fundamo the support of FIs/MNOs/SOEs is important because of their relationship with the merchants and end users. The MNOs, FIs and SOEs are also responsible for the distribution of mobile payments. Fundamo partnered with network operators (MNOs), in order to ensure anenough quality of services and gain access to essential network services (i.e. location information) and have a privileged contact with their customer base. MNOs partnership with device manufacturers ensures compatibility with the different existing and future devices. Fundamo also partnered with FIs, application providers and system integrators.

Distribution Channels

Alliance with MNOs/FIs/SOEs are the ideal distribution channels. All the distribution, regulatory and marketing promotional matters were handled by the alliance partners (MNOs (SOEs) to provide broader solutions and offer a single point of contact to end users. As an IBM partner, Fundamo is the only mobile money service provider that can deliver an IBM expert integrated systems option that has been certified by IBM Pure Systems. Angel investors and venture capital companies like Remgro Venifin, Sanlam & HBD Venture Capital provided the working capital required to sustain the venture but added value in influencing and cementing the partnerships with MNOs, FIs and SOEsso that Fundamo could focus on creating and delivering solutions. Regulatory issues define which business model would be ultimately adopted in most of the markets. After entering the emerging markets, the company took a decision to enter markets outside of Africa and has shown that these are big markets for the company and cemented its decision to partner with MNOs and FIs to focus there. The big challenge was to ensure that the company has a sales/service/support team that can support these new markets.

Revenue Mechanism

Fundamo got its start in earning revenue by providing the solutions to early adopters (MNOs) like CelPay, and six other FIs (banks) in Zambia. Fundamo earns revenue from sale of software solutions, installation fees, operation and maintenance services.

Cost Structure

Cost structure includes salary to employees, enterprise platform, application development, sales/marketing (excluding promotional marketing) expenses and maintenance. Fundamo's partnership with

MNOs, FIs and SOEs enabled to achieve significant cost savings because the partners took the responsibility of promotional marketing as well as the regulatory issues with respect to merchants and end users.

IX. A LEAP BEYOND FAITH

"It's amazing what a little company can do", says Fundamo COO Aletha Ling.Fundamo wasn't a company that sprung from nowhere overnight, Ling points out. It has been built up through hard work and laser focused strategy over 14 years. The company survived and thrived because of the vision and passion of the founder as well as execution of continuous innovation through the lean canvas (Business) Model with a unique value proposition. The founder's "leap beyond faith" in Fundamo signifies the testimony from struggle to success stage and the key driving elements are outlined below https://www.techcentral.co.za/visa -buys—Fundamo; https://www.theregister.co.uk/2014/fundamo):

- ► Founder of Fundamo who insanely believed in the unique idea.
- ► A 'dream-team' of mobile financial services players provided affordable and reliable mobile financial services.
- ► Continuous innovations and execution of lean canvas (Business) Model with UVP.
- ▶ Pioneering advantage: vision, experience and expertise to develop MP software solutions that are flexible to adopt for partners/customers' requirements.
- ▶ Laser focus on emerging markets and creating barriers for competitors.
- Creating solutions with and for IBM, MTN and other partners.
- Building trust with stakeholders, particularly investors.
- ► Eventually Visa to acquire Fundamo because of company's authenticity delivering the deliverables as promised to customers/partners.

X. DEFINING MOMENT

Visa Inc. acquired South African firm Fundamo in Sept 2011 for US\$110 million cash. Then Fundamo became a wholly owned subsidiary of Visa Inc. and one of the largest specialist providers of mobile financial services in the world. Visa's acquisition of Fundamo is a landmark event and defining moment in the development of the MP business. When the history of mobile banking in emerging markets will be written, this event will be remembered as one of the defining moments. The effect of this transaction holds positive promise to all involved in the financial services industry. It is an endorsement for using mobile to deliver advanced financial services to the poor and unbanked customers. This was good news for all. Visa is

the custodian of payments in the world, if one considers how important payments are and how important. Visa's products are to make business work ubiquitously. If Visa were to be taken away, then payments will stop. Therefore, that infrastructure and the thinking around that opened vast opportunities for Fundamo in the emerging markets(https//www.businesswire.com--visa acquires Fundamo).

The acquisition combines Visa's global network scale, product suite, financial institution associations, and security with Fundamo's capability in mobile financial services. The acquisition created a globally interoperable mobile payment platform that can connect existing mobile money services with Visa's global payment network. Fundamo has been incorporated into Visa, creating worldclass capabilities to provide products and services to the under-served in emerging markets. The strategy going forward is clear to deliver on the promise of a universal mobile payment eco-system for emerging markets to benefit all players. Visa, faced with a saturated U.S. market for credit and debit cards, has been increasingly looking for growth in the emerging markets through new gateways including mobile phones and the Internet, Competition in the sector has been heating up with telephone companies, bank majors and technology giants jostling for a piece of the pie. The Fundamo acquisition has helped Visa to grow its mobile phone-based payment services in developing markets across Africa, Asia and Latin America. The acquisition deal ensures Visa to accelerate the execution of global strategy to provide the next generation of payments solutions, allowing consumers to transact wherever and whenever they choose, using a card, computer or mobile device.

XI. CONCLUSION

At the heart of Fundamo sincerity a pioneering spirit that drove to find new challenges and conquer them. The company's vision was for a truly connected mobile financial services ecosystem that acts as an agent of positive social, economic and technological change and relishes the opportunity to tackle the seemingly impossible and constantly crafting innovative global MP solutions. The company had a story to tell. The software solutions were unique, original, and flexible. The ownership culture was unique too. That kind of authenticity attracts and retains clients as partners who believed in Fundamo's offering. Any Fundamo experience is underpinned by delivery as promised. The partners trusted Fundamo and cooperated with the company to understand the problems and the relevant solutions. Fundamo executed a lean canvas (Business) model in a comprehensive way that sustained during difficult times and captured Visa's attention so that the company was acquired by Visa in 2011 at a net worth valuation of US\$110 million cash. Fundamo, even after Visa's acquisition, was not just a

global company in terms of geography but also a microcosm of the world. The company embraced diversity and learned from the partners to translate the problems into solutions that are appropriate for each individual project and a living testimony to the theory that the whole is greater than the sum of its parts. The company believed that it is only through collaboration that one can achieve greatness. Fundamo's partners served the end-users that attained the company to global reach, knowledge and the creation of value. The continual innovation pursuit and the authenticity earned Fundamothe best mobile payment product of the year in 2013 at the Card and e-payment celebration award. Fundamo became the World's no.1 mobile financial service provider—a dream came true for founder(https://techcrunch.com/2011/06/09/visathe acquires-mobile-financial-services-company-fundamo-for-110m-in-cash/).

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BIOGRAPHY

Prafulla Kumar Padhi, a serial entrepreneur, has over 42



years of global business experience and held the Founder, CEO and Chairman of the Board positions for more than 25 years and managed up to US\$1.2 Billion revenue operations. His education qualification includes a Master of Science degree

from the most prestigious Massachusetts Institute of Technology (MIT), Cambridge, USA and a graduate of the Ivy League Wharton School of Business, University of Pennsylvania (USA) and holds seven diploma certificates from the Ivy League Columbia University (USA), the Ivy League Dartmouth College (USA), and Kellogg School of Management (USA). For more than 40 years, as a pioneer, Mr. Padhi has been involved in entrepreneurial venture endeavours in disruptive technologies and smart fashion

wearable ventures globally. So far, he has done business in 46 countries and travelled to 142 countries. He is an author, independent researcher, innovator, pioneer, product marketing architect (patent/copyright holder) and teacher in creation, design, marketing disruptive technologies and products.

Learning Objectives

- 1. The evolution of smart phone, mobile operating systems, mobile payments service and its future.
- 2. A pioneering venture must have a compelling story to reveal.
- 3. An entrepreneurial philosophy matter.
- 4. Lean canvas model with a sustainable lean culture drive result
- 5. Contributory environment for customer support and service effectuate client satisfaction and loyalty.
- 6. A holistic advent to innovation builds trust with key partners influencing end users.
- 7. A leap beyond faith---Entrepreneurs must have insane believe in their idea and passion for success.
- 8. A strategic framework is essential to demonstrate leadership and decision-making challenges in a complex environment.

Learning Outcomes

- 1. Explain a Founder/ CEO's vision, passion, responsibilities to shareholders and to the society.
- 2. Synthesize complex information from multiple sources and utilize the information to make informed business decisions for success in an entrepreneurial setting.
- 3. Illustrate the need to develop positive organizational values and inculcate those values in the entrepreneurial culture to build a sustainable enterprise.
- 4. Describe ethical and moral responsibilities and obligations of stakeholders, particularly investors in a pioneering venture setting.

Application

The case is appropriate for entrepreneurial business (Ph.D./DBA/MBA/MS/BS.) course, and other courses that cover business modeling for ventures, strategic marketing, innovation, leadership decision-making, organizational culture, evolution of mobile payments service and its future.