



# INNOVATION - A BUSINESS RISK TO MANAGE

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*"I never perfected an invention that I did not think about in terms of the service it might give others... I find out what the world needs, then I proceed to invent"*

*Thomas Edison*

Thomas Edison (1847-1931) was one of the world's most famous inventors, making an impact on society like no other. His most well-known inventions were the phonograph which could record a voice and play it back, the long lasting electric light bulb which later paved the way for an entire electric utility system and his work with motion pictures.

People are full of ideas but ideas alone do not add value. Innovation is about people taking ownership and translating an idea into a product or service that creates value.

From a business point of view, innovation is about responding to a changing environment. It can result in the development of new products and services which satisfy the needs and expectations of customers, lead to the improvement of existing processes and systems which increase the efficiency and productivity of a company or simply the revamping of products and services.

Innovation in a broader sense, contributes towards enhancing the standard of living world over and provides people with opportunities to improve their lives.

Just the other day I was trying to remember life before the smartphone. Who would have thought the release of the iPhone in 2007 would revolutionise our lives to this extent.

Today, thanks to this innovation, we can at the touch of a button, make a phone call, listen to our favorite music, take a picture, find a location and get directions on how to get there, watch a film, check the balance of our bank account and even pay the water bill.

Blackberry was actually the first smartphone to gain mass worldwide adoption in 2002. Real-time communication using a keyboard suddenly became available on a mobile device. Blackberry dominated the market and was especially popular among business customers



until the launch of Apple's iPhone under the leadership of Steve Jobs (1955-2011), one of the greatest innovators of our time. Google's Android operating system was also launched around the same time.

The simplicity of the iPhone touchscreen user interface completely ruined Blackberry's monopoly in that domain. Research in Motion (RIM), the company behind Blackberry failed to realise that smartphones would evolve beyond mere communication devices to become fully-fledged mobile entertainment machines.

The smartphone went on to pave the way for Apple's iPad in 2010, a mobile tablet which ran on its own operating system and could automatically link into Wifi. Other new innovations such as cloud-connected glasses and smart watches are in the making and not too far away in the future we can look forward to a smart phone with sufficient processing power and memory to be used as a fully-functional computer which connects to a screen monitor.

It was in 1887, that Elisha Gray invented the Teleautograph, an electrical stylus device for transmitting handwriting, more than 120 years before the iPad was launched.

Gray's Teleautograph machine (now referred to as the telefax) was used by banks for signing documents at a distance, in hospitals this was used to transmit accurate information and orders and in train stations to inform about train schedule changes.

Gray was also well known for the development of a telephone prototype and the first musical synthesizer. A lot of controversy exists as to whether Elisha Grey or Alexander Graham Bell actually invented the telephone. Shortly before his death in 1901, Gray was working on an underwater signalling device to transmit messages to ships.

A financial innovation worth mentioning is the mutual fund which took off over 50 years ago and is still popular as a savings and retirement product. Before the mutual fund was developed, only large investors could buy a diversified portfolio of equity shares or bonds from an exchange. This was because transaction costs were high and the desired shares were not available in small quantities to meet the needs of the retail investor.

The pooling of investors' funds to purchase the required amount of shares was made possible with this innovation. Subsequently exchange-traded funds (ETFs) were developed allowing an investor to buy or sell his share of a diversified portfolio on an exchange.

Today, in a world dominated by mind blowing advances in technology, no bank functions without some form of technological innovation.

One of the most useful innovations in the history of consumer banking was the creation of the ATM (Automated Teller Machine) in 1972. With the simple input of a plastic card, people were able to withdraw money from their bank accounts within a few seconds. Today with the



ATM touch screen, we can also check our account balances, pay our bills and deposit cash into an account.

In 1979, the first switching system was developed to enable shared ATMs between banks. Banks have innovated even further and now allow customers to withdraw cash up to a certain amount from the ATM without a card by inputting a six-digit code requested through their smartphones.

In 2011 the ATM was used to collect charitable donations. Wells Fargo was able to collect more than US\$ 1 million for the American Red Cross directly via ATM in a short space of time when people were looking for ways to contribute to the earthquake and tsunami aid program in Japan.

Dominic Basulto in his paper on “Turning ATMs into Automated Thinking Machines” talks about the potential of the ATM of the future and what will happen when the plastic card becomes obsolete. Will the ATM turn into a friendly thinking companion available 24/7 to anybody who happens to be in the neighborhood or will it become extinct?

If we were to look at a few interesting technological innovations that occurred recently in the financial sector, we can count among them the following:

GiveDirectly, a non-profit organisation currently operating in Kenya and Uganda aims to help people living in extreme poverty by channelling donations via smartphone. The organisation targets families living in houses with thatched roofs, making unconditional cash transfers to them via smartphone.

GiveDirectly is the brainchild of graduates from Harvard and MIT which originally started as a private charity circle in 2009 and opened to the public in 2011 after two years of testing. Approximately 90% of charitable donations received by the Company are sent directly to the recipients. The remaining 10% is spent on fees for transfers, identification of recipients and follow-up costs.

#### TransferWise

a peer to peer money transfer service was launched in 2011. Its creation was inspired by the personal experiences of its founders T. Hinrikus and K. Kaarmann. The two Gentlemen who were natives of Estonia and working in the United Kingdom were dismayed to find that each time they had to make a foreign exchange transfer to their native country, they had to pay costly bank charges amounting to around 5% of the transaction amount. Today TransferWise deals with more than 20 currencies, charging approximately 0.5% per international transaction.

As of January 2015, TransferWise had raised a total of US\$ 91 Million in funding. In May 2015, TransferWise was ranked Number 8 on CNBC’s 2015 Disruptor 50 list.



Estimize, a crowdsourced platform launched in 2013 allows professionals from the financial sector (hedgefund managers, asset managers) and amateurs to give their forecasts on a company's quarterly earnings. This created a dent in the forecasting monopoly enjoyed by Wall Street at the time.

Estimize has over 13,000 members, of which more than 2700 members contribute their analysis on quarterly earnings estimates of companies. Using algorithms, Estimize comes up with a consensus, giving more weight to the contributors who were historically most accurate and eliminates any outliers.

The company furthermore provides a commercial API, which allows anyone to incorporate Estimize data into their forecasting models. Bloomberg shows the Estimize forecasts side-by-side with those of the traditional financial institutions.

Slack, a messaging platform developed for business use, is aimed at improving communication among members of a team or project. One of the company's cofounders is Stewart Butterfield. Butterfield is also known for creating the photo-sharing service Flickr.

Slack became a tremendous success since its launch in August 2013 with over 8000 companies signing up straight away, despite tough competition from established players like HipChat, Flowdock and Skype.

What distinguishes Slack from its competitors is other than its stability and superior design, the ease with which the product can be customized to meet the needs of its users. Social media post and pictures can be linked and Slackbot (Slack's built in robot) can be used to answer common questions or to perform tasks automatically. Today Slack has over 500,000 daily active users and is valued at over \$1 billion.

Prior to the digital age, the products offered by banks were mostly profitable and they only required small changes being made to them in order for banks to continue to maintain their market positions. This was further supported by a regulatory environment which made the barrier to entry for new banks with innovative ideas a high cost factor.

As borders between financial products offered by banks and non-banks disappear, banks can no longer only focus on their main products and services. In fact many banks today offer the same products and services under a different name due to a lack of innovation.

Following the aftermath of the sub-prime crisis, a regime of falling interest rates and a surge of non-banking institutions coming into the money transfer and payment system domain, banks were faced with dwindling profit margins, increased competition and outdated systems and processes. As a result, over the past few years, banks have begun to tackle disruptive innovation with a new perspective and investments in financial technology ventures have exploded.



Many banks and financial companies worldwide have caught up with the idea of having their own development centres. They have set up innovation labs to test new technologies, improve existing processes and develop new financial products and solutions in order to meet their customers' financial needs. Some banks have established a separate section or branch to test-run the new concepts directly with customers before rolling them out to all branches.

Standard Bank (Africa) for instance, has set up a new technology testing and innovation centre called PlayRoom, allowing staff and customers alike to try new innovations and develop solutions which would bring additional banking value to the people.

Commonwealth Bank (Australia)'s innovation lab acts as an idea incubator, facilitating the development of new products and services by employees through the valuable input of customers. The 10,000 square feet lab allows customers to interact with real time data, brainstorm solutions and work together with the bank's project teams in order to materialise some of these ideas.

Visa (US) specialising in financial services, opened an innovation centre close to Silicon Valley giving the company access to a tech-savvy community. The centre is designed to facilitate interaction between clients, partners and corporate management and to permit real time experimentation.

Innovation is clearly on the increases but the real challenge lies in selecting the best innovations for implementation. Banks also need to increase the speed at which they bring new products and services to the market. They need to become just as digitized as their customers, otherwise non-banks will move in quickly to meet the need also offering the standard banking products with more convenience and incentives.

Competition is not only coming from small companies but also from some of the largest companies in the world such as Alibaba and Walmart who are willing to offer banking services at a very low cost or even for free.

Take a look at Alibaba, the Chinese e-commerce giant which started off in 1999 as a business to business portal in order to connect Chinese manufacturers with overseas buyers. Alibaba is now targeting the banking industry. The internet finance arm of the Group attracted deposits amounting to more than US\$ 80 billion in the first year by offering higher returns than the state-run banks.

Also last year, Walmart one of the largest discount retailers in the world, announced it would offer basic current accounts to consumers in partnership with Green Dot.



## Dealing with the risk

Can innovation as a business risk be successfully managed?

In any sector, banking or other, innovation comes with many trials for every success. As Thomas Edison once said “genius is 1% inspiration and 99% perspiration”.

For a long period and more so following the global sub-prime crisis, the impression was that innovation in banks was stifled due to internal perceptions of risk management and the increase in operational and control processes. Today a sense of urgency to innovate in banks is taking off, with system innovation at the forefront.

A number of key attributes are driving the success of innovation in banks today and banks in Sri Lanka are fast catching on.

A vision is central to any organisation. Banks need to not only have a vision which drives their strategic goal, they also need to link this to an innovative culture with the right mindset.

This mindset must begin at the top level of the bank and be communicated to employees at all levels of the organisation. It should cover the beliefs, values, expectations and motivation of those in the bank. Creative thinking must be encouraged and rewarded in the relevant business areas and in unwanted areas it should be formally discouraged in order to avoid uncontrolled risk-taking.

The general consensus is that leaders in banks that listen, stay open, collaborate, have a lean approval structure and are aware of failure can be innovative much faster than their peers.

Listening to what goes on internally and externally can bring about new insights that lead to innovation. Ideas do not always come from experts. Sometimes the greatest innovations come from school leavers, newcomers to the bank, customers and other back office staff.

In some instances, innovative products cannot be developed without outside help. This can be done through collaborations with other companies, the regulatory authorities, universities, consultancies, and through strategic mergers and acquisitions.

Leaders should also be able to accept failures. Some of the greatest innovations were created by accident and resulted from the failure of another product or service. The messaging platform Slack for instance was created when Butterfield was trying to develop an online game.

Banks in Sri Lanka can no longer be driven by a vision of maximising shareholder value and increasing stock prices. New technology and other resources need to be invested regularly in the business in order to drive the innovation process. Rewards will automatically follow through brand recognition and a good reputation.



Once banks have established a vision to innovate, they need to provide incentives to stimulate motivation. This can be in the form of a one-time cash reward, a bonus payment, promotion or long term stock options.

Also as with any product, management should have a clear and transparent picture of the costs involved and benefits associated with innovation activities so that any investment made is in line with the desired return.

Another key component of innovation is managing the business risk. Banks need to identify, evaluate and monitor the risks which arise through their innovation activities.

- These could include operational risk aspects such as failure to meet the required product or service quality, costs which could be above the agreed budget, no capacity to implement the innovation, delays in the time plan or high concentration of resources on the new product at the expense of the quality of existing products.
- The risk from a commercial point of view would be failing to attract enough customers
- The financial risk is the risk of sunken costs as a result of investing in unsuccessful products.

In order to manage business risk, banks need to have sound corporate governance and risk management processes in place, which will help to provide a better understanding of the trade-off between risk and return.

Risk management is about making proactive and informed decisions based on internal assessments and reviews. It is about involving management and the business to achieve a balance between possible opportunities for gains while minimising possible losses to the bank.

Developing a good risk management culture in the bank at all levels of the business is essential in managing risk. It encourages staff awareness on the risks faced by the bank in the day to day business dealings and by making each employee responsible for assessing risk, the bank can generate a sense of ownership, motivation and self-reliance. Sound risk management practices will build resilience in a bank without stifling innovation.

One of the challenges facing many risk managers is making their organisation understand and embrace the positive side of measuring and monitoring risks rather than simply seeing it as a regulatory and compliance driven exercise.

In innovation, the role of the risk manager would be to encourage collaboration and teamwork, to discuss the risks involved in the innovative product or service under consideration, to make them transparent identifying the vulnerable areas inside and outside the bank.



Many banks have established a new product process including a special committee for the development of responsible innovation. The purpose of the new product committee is to guide innovation from the very beginning, ensuring the tasks and responsibilities surrounding it are distributed appropriately to the relevant business units and that each team is aware of its responsibilities. The committee deliberates on potential issues which could arise through an innovation and also looks at how the new product complies with rules and regulations.

It is true, that a bank's innovation activities will generally tend to have higher risk profiles than their well-seasoned products and services. However, the constant need for innovation and change is imperative for the growth of any business and the benefits and rewards are many.

Through successful innovation a bank can for example increase its profit margins, show product diversification and differentiation, satisfy customers' needs, increase loyalty and secure a market strategic position.

Banks that do not make changes to products, internal processes or business models over time may fade in significance and relevance, eventually disappearing altogether, and making risk management part of a bank's corporate culture will help create resilient banks and enable them to continue to innovate.

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