IDD Vision
The IOCOM Digest and Dialogue (IDD) is to be recognized as a world class outcome management Journal/Periodical.

IDD Mission
IDD’s Mission is to provide useful, timely and thought-provoking content in outcome management driven disciplines that addresses a broad spectrum of practices for knowledge exchange among academicians, researchers and practitioners.

IDD Objectives
1. Bridge the gap between academicians and practitioners in the discipline of outcome management
2. Provide a platform to academic researchers and practitioners for disseminating their research work.
3. Promote adoption of innovative outcome management disciplines
4. Highlight challenges being faced by the outcome managers (practitioners)

IDD Scope
1. The IDD journal will cover application of the cross cutting themes of Outcome management disciplines. No other journal in the world is having such orientation.
2. IDD journal’s main emphasis is on applied research.
3. IDD journal will accommodate articles based on both qualitative and/or quantitative approaches. However, preference will be given to mixed methods and action research.
4. Geographical territory of our journal is the entire globe.
5. Our target audience includes academics and practitioners in outcome management.
Introduction of IOCOM

IOCOM is a not-for-profit corporation registered in Canada. It is an organization of professionals, academics and an alliance of international and national associations, societies and networks engaged in the discipline of outcome management.

IOCOM invites professionals and academics to create a forum for the exchange of useful and high-quality theories, methodologies and effective practices in outcome management drawn from all management disciplines. IOCOM encourages management practitioners contributing to outcome management in all fields to make use of our resources, to participate in our initiatives and to contribute to our goals as individuals or through outcome management organizations. We offer global linkages to outcome management professionals, organizations and networks about events and important initiatives, as well as opportunities for exchanging ideas, practices, and insights with peers throughout the world.

IOCOM’s Vision

To create a world where professionals, academia, organizations and networks with a focus and interest in effective outcome management, collaborate to strengthen the theory and practice of the discipline that benefits society.

IOCOM’s Mission

To promote outcome management in the world at large through multidisciplinary professional and academic collaboration and the quest for evidence in decision making for business and organizational viability.

IOCOM organizational and individual memberships are free and provide the benefits of professional connectivity worldwide. Please visit our web site at www.iocomsa.org and join IOCOM.

Please send your write-ups and comments to:
editorsIDD@iocomsa.org
IOCOM Board of Directors

Mr. Sandiran Premakanthan (Chair)        Canada
Mr. Zicky Hammud (Secretary General)     Canada
Ms. Kunzang Lhamu                       Bhutan
Dr. Ishwar Awasthi                      India
Mr. Prabin Chitrakar                    Nepal
Md. Abu Hanif                           Bangladesh
Ms. Anzel Schönfeld                     South Africa
Dr. Atiq ur Rehman                      Malaysia
Mr. Awuor Ponge                         Kenya
Mr. David Roberts                       Australia
Mr. Nalin Wijetileke                    New Zealand

Web/Postmaster

Mr. Raymond Peterkin                    Canada
<table>
<thead>
<tr>
<th>Page</th>
<th>Section/Article</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Message from the Chair/President</td>
</tr>
<tr>
<td>8</td>
<td>Editors’ Note</td>
</tr>
<tr>
<td>9</td>
<td><strong>ARTICLES</strong></td>
</tr>
<tr>
<td>9</td>
<td>Digital currencies in financial, accounting and banking ecosystems</td>
</tr>
<tr>
<td></td>
<td><em>Sandiran Premakanthan</em></td>
</tr>
<tr>
<td>18</td>
<td>Branchless Banking Services in Pakistan</td>
</tr>
<tr>
<td></td>
<td><em>Atiq ur Rehm</em></td>
</tr>
<tr>
<td>24</td>
<td>Issues of Financial Literacy in Pakistan</td>
</tr>
<tr>
<td></td>
<td><em>Sehrish Fatima</em></td>
</tr>
<tr>
<td>28</td>
<td>Digital ID: Key to Canada’s future?</td>
</tr>
<tr>
<td></td>
<td><em>John Flanders</em></td>
</tr>
<tr>
<td>34</td>
<td>Authors’ Introduction</td>
</tr>
<tr>
<td>35</td>
<td>Call for Articles and Submission Guidelines</td>
</tr>
</tbody>
</table>
Welcome to this new issue of IDD focused on the “Financial accounting and banking ecosystem.” In a previous issue (Vol. 03 No. 4), I introduced the concept of business ecosystems in an article titled the “Dynamics of business ecosystems”. This concept was defined as “a complex network of interconnected businesses that depend on and feed on each other to deliver value for their customers, to the end users, and their key stakeholders”. These days, “ecosystems” appears to be the buzzword in financial, accounting and banking circles.

The Financial Brand, a digital publication focused on marketing and strategy issues affecting banks and credit unions, defines a banking ecosystem this way: “An interconnected set of services where customers can fulfill a variety of needs in a single integrated experience. Bringing together ways to make a consumer's daily life easier is the future of digital banking.” Central Digital Blog defines fintech (financial technology) ecosystem as a system that brings together governments, financial services companies, and fintech startups. The fintech industry is engaged in a number of services, to name a few examples they include consumer and business lending, personal finance, payments back end (payroll, point-of-sale payments and equity financing.

Financial and accounting ecosystems driven fintech and banking ecosystems are crossing boundaries and influencing the future of the industry. They are doing so by merging into a larger ecosystem. While competing for customers and markets, they share a symbiotic existence to achieve common outcomes of serving customers in cost effective ways while staying profitable. A McKinsey report of October 2017 titled “Remaking-the-bank-for-an-ecosystem-world” clearly illustrates the need for the three ecosystems to coalesce and work together as one large ecosystem. The authors write: “Global banking-industry performance has been lackluster. Now comes the hard part: the rise of nonbanking platform companies targeting the most profitable parts of the banking value chain”. They write that the global banking industry showed signs of recovery from the financial crisis of 2008 through replenished capital stocks and reduced costs, yet profits remained low.

The return on equity was stagnant at between 8 and 10 percent; a figure considered the industry’s cost of equity. This trend showed investor concern about future profitability. This situation was largely due to a slowdown in global revenue growth, which was 3 per cent in 2016. McKinsey cited new digital entrants having an impact on bank performance, particularly by threatening the customer relationship and margin erosion across retail segments. “Platform” companies such as Alibaba, Amazon and Tencent are staking a claim to banks’ customers and the revenues and profits they represent. The manufacturing end of many businesses is fading
from view, as the platform companies increasingly dominate the distribution end of multiple businesses, providing a wide range of products and services from a single platform.

McKinsey warns that the estimated impact of the digital threat in 2015 needs to be updated. As interest rates recover and other tailwinds come into play, reaching a steady state with no digital disruption, the banking industry’s return on equity could reach 9.3 per cent in 2025. But if retail and corporate customers switch their banking to digital companies at the same rate that people have adopted new technologies in the past, the industry’s return on equity in the worst case scenario, with unmitigated digital disruption, could fall by roughly 4.0 points, to an unsustainable 5.2 per cent by 2025. The banks must take immediate action to explore the new tools at their disposal and build the skills in digital marketing and analytics they need to compete effectively. McKinsey estimates that the gain from digitization would add about $350 billion to the banks’ collective bottom line. This would lift the average bank’s return on equity by about 2.5 percentage points. However, this is not enough to fully offset the 4.0-point drop forecasted in the unmitigated scenario.

Fintechs are moving into commercial and corporate banking with most retail businesses (except investing) already fully explored. Intech’s’ fastest-growing segments are payments solutions for large companies. A spate of alliances and acquisitions between retail banks and fintechs has helped to solidify the notion that the land grab is over. McKinsey also states that fintechs are making strides in capital markets and investment banking, especially advisory services. Here, the emphasis is more on enabling traditional business processes, rather than disrupting them. “The idea of fintechs as a threat to retail banking might be receding,” the McKinsey report says. “But the new strategies adopted by the aforementioned platform companies are even more challenging for incumbent banks. “By creating a customer-centric, unified value proposition that extends beyond what users could previously obtain, digital pioneers are bridging the value chains of various industries to create ‘ecosystems’ that reduce customers’ costs, increase convenience, provide them with new experiences, and whet their appetites for more.”

McKinsey says banks must prepare for an integrated digital economy and start developing platform capabilities. At this point, banks will offer a range of services, reach a vastly larger customer base, and succeed at their digital rivals’ game. In the race to regain or maintain market position, banks must take some essential steps: harness the new powers of data-driven marketing; create a digital workbench for sellers; and institute robotic process automation, the cloud, application programming interfaces and apps, and all the other tools now available. McKinsey’s report concludes that banks that successfully orchestrate a basic ecosystem strategy, by building partnerships and monetizing data, could raise their return on equity to about 9 or 10 percent. Banks that can go further and create their own platforms might capture a small share of some non-banking markets, which would elevate their return on equity to about 14 per cent, which is far above the current industry average.
See my article on cryptocurrencies on the digital sub-theme elsewhere in this issue. I wrote it in hopes of creating knowledge transfer and awareness of such issues that may impact our daily lives.

Finally, use the IDD to tell us about your experiences. Let the world know what you are doing. IDD needs writers from all outcome management disciplines to maintain a continuous flow of articles, short or long.

The editorial team welcomes suggestions for improving the quality of the IDD. It’s your e-journal. Help us make it world class!

Chair/President
Sandiran Premakanthan
Editors’ Note

The editors take great pleasure in presenting IDD, Vol. 4, Issue 3, the first for 2019. Its theme is the “Financial, accounting and banking ecosystem.” Here are four articles for your reading enjoyment:

**Digital currencies in financial, accounting and banking ecosystems:** Like most risky financial investment strategies, cryptocurrencies have produced a few a few millionaires, while plenty of others probably wish they had never touched them. So, what is a “cryptocurrency”? IOCOM chair Sandiran Premakanthan provides some answers.

**Branchless Banking Services in Pakistan:** For many people in Pakistan, especially the poor, managing finances can be a painful and stressful experience. Financial exclusion puts people at disadvantages in many ways. IDD editor Atiq ur Rehman examines branchless banking in Pakistan, and explains how it would help the poor.

**Issues of Financial Literacy in Pakistan:** About 100 million adults (roughly half Pakistan’s population) do not have access to formal and regulated financial services. Sehrish Fatima, Associate Manager Monitoring and Evaluation, of the National Institute of Banking and Finance in Islamabad, suggest measures to improve the nation’s financial literacy, now the lowest among developing countries.

**Digital ID: Key to Canada’s future?** Digital ID systems are evolving rapidly around the world, but there’s still a long way to go. According to the World Bank, more than 1.1 billion people are unable to prove their identity and, therefore, lack access to vital services. IDD associate editor John Flanders assesses the situation in Canada and internationally.

Give us some feedback. Send us an email, or better still, write an article. We need authors who want to share new and innovative ways of looking at outcome management in the various disciplines and areas of work.

Further details about our submission guidelines can be found on page 38. Let’s hear from you.

Editors

Atiq ur Rehman, Susanne Moehlenbeck, and John Flanders
Digital currencies in financial, accounting and banking ecosystems

Sandiran Premakanthan

Like most risky financial investment strategies, cryptocurrencies have produced a few a few millionaires, while plenty of others probably wish they had never touched them.

Horror stories abound. A 45-year-old Korean teacher and mother of one who lives on the outskirts of Seoul said she put about 100 million won, or US$90,000, into cryptocurrencies last fall. She drew on savings, an insurance policy and a US$25,000 loan. Her investments are now down about 90 per cent. Her financial strategy to get rich fast and escape hardship and live more comfortably turned out to be a pipe dream.

A man who lives in Nottingham, England, was one of the many risk-takers who threw their savings into cryptocurrencies when prices were going through the roof. The US$23,000 he invested in several digital tokens is now worth about US$4,000. “I got too caught up in the fear of missing out and trying to make a quick buck,” he told the Financial Post in August 2018. “The losses have pretty much left me financially ruined.”

As a new form of cash, the cryptocurrency markets have been known to boom suddenly, meaning a small investment can become a large sum overnight. This has led to a spur in professional and amateur speculators investing in bitcoin and other cryptocurrencies, seeing them either as a quick way to make returns or as part of an investment portfolio.

The Financial Post story says it’s hard to know how many cryptocurrency investors have taken a bath, with holdings worth less than their original investment. On the other hand, the “winners” in cryptocurrency appear to have invested in the early days and stuck with it.

One bitcoin blog records the case of a college-educated former Silicon Valley employee, who heard about bitcoins in July 2010 and began investing in them a few months later. Knowing he was in for the long haul, he put his bitcoin investments on the backburner until 2013, when the cryptocurrency’s value started rising rapidly.

Eventually, the price per coin went up to more than 2,000 times what he originally paid for it. He now claims to have made $25 million from an initial $3,000 investment. He uses the money to go on lavish, round-the-world travels, staying in only five-star hotels and flying first-class. So, what is a “cryptocurrency”? How does it work? This article provides an overview of the cryptocurrency industry, an introduction to popular cryptocurrencies, and the evolution of the bitcoin business ecosystem based on research findings.

It examines the so-called “blockchain” technology, the driver of cryptocurrencies, as well as what the experts say about this innovative digital currency, including their thoughts on the pros and cons of privatizing the money or restricting its issue to the state.
Cryptocurrency: Digital money

A cryptocurrency\(^1\) is digital or virtual money that uses cryptography for security. A cryptocurrency is difficult to counterfeit because of this security feature. Many cryptocurrencies are decentralized systems based on “blockchain technology”. This is a public digital ledger that is used to record transactions across many computers so that any involved record cannot be altered retroactively.

A defining feature of a cryptocurrency, and arguably its biggest allure, is its organic nature; it is not issued by any central authority, rendering it theoretically immune to government interference or manipulation.

Cryptocurrencies are known for being secure and providing a level of anonymity. Transactions in them cannot be faked or reversed and there tend to be low fees, making it more reliable than conventional currency. Their decentralised nature means they are available to everyone. Digital currency (digital money, electronic money or electronic currency) is a type of currency available in digital form in contrast to physical forms, such as banknotes and coins. It exhibits properties similar to physical currencies, but can allow for instantaneous transactions and borderless transfer-of-ownership.

Currently, there are more than 1,600 different cryptocurrencies available over the Internet as of August 2018. More seem to be launched every day.

Here is a quick look at the top five:

**Bitcoin:** Bitcoin was the first, and is the most, commonly traded cryptocurrency to date. The currency was devised in 2009 by Satoshi Nakamoto, a mysterious figure who developed its blockchain. It had a market capitalization of around $128 billion billion as of May 2018. Nakamoto described it as a system enabling a “purely peer-to-peer (P2P) version of electronic cash”. It allows two parties to send online payments to each other without having to go through a centralised institution. As of April 2019, one bitcoin was trading at US$5,494.61.

**Ethereum:** Developed in 2015, ether is the currency token used in the ethereum blockchain, the second most popular and valuable cryptocurrency. Ether had a market capitalization of around $56 billion as of May 2018.

**XRP\(^2\) - Extended Resource Planning (Cambridge):** XRP is a cryptocurrency or a form of digital asset. XRP had a market capitalization of around $14 billion as of May 2018.

**Litecoin (LTC)\(^3\):** Litecoin\(^4\) is a peer-to-peer Internet currency that enables instant, near-zero cost payments to anyone in the world. It is an open source, global payment network that is fully decentralized. Mathematics secures the network and empowers individuals to control their own

---

1. [https://www.investopedia.com/terms/c/cryptocurrency.asp](https://www.investopedia.com/terms/c/cryptocurrency.asp)
4. [https://litecoin.org/](https://litecoin.org/)
finances. Litecoin features faster transaction confirmation times and improved storage efficiency than the leading math-based currency. It allows you to send low-cost private, secure, borderless payments to anyone, anytime, anywhere. The total value of all Litecoin is around $6 billion.

**EOS:** EOS has attained celebrity-like status in the cryptocurrency market. It is a decentralized operating system based on blockchain technology. It is designed to support decentralized applications on a commercial scale by giving all the required core functionalities. This blockchain network claims to conduct millions of transactions within a second. EOS is currently the fifth leading cryptocurrency of the world by market capitalization.

**The “Blockchain”**
Cryptocurrencies use decentralised technology to let users make secure payments and store money without the need to use their name or go through a bank. Bitcoins run on a distributed public ledger called a blockchain; it is a record of all transactions happening in the network, and it is updated and held by currency holders. The words “block” and “chain” refer in this context to digital information (the “block”) stored in a public database (the “chain”). Specifically, there are three parts. Blocks store:

- Information about transactions, such as the date, time, and dollar amount for illustrative purpose, such as your most recent purchase from Amazon;
- Information about who is participating in transactions. Your purchase is recorded without any identifying information such as your name using a unique “digital signature,” sort of like a username;
- Information that distinguishes them from other blocks. Each block stores a unique code called a “hash” that allows us to tell it apart from every other block.

When that new block is added to the blockchain, it becomes publicly available for anyone to view. If you look at bitcoin’s blockchain (https://www.blockchain.com/btc/blocks), you have access to transaction data, along with information about when (“time”), where (the block’s position on the chain is called “height”), and by whom (“relayed by”) the block was added to the blockchain.
Bitcoin business ecosystem 2010 (Network graph 2010)
The bitcoin business ecosystem has been steadily growing since its inception in 2010 from a modest eight entities to well over 400 companies and projects in 2015. The network graphs 2010 and 2015 show the evolution of the bitcoin ecosystem over the six-year period to meet growing user needs.

**Can crypto record a 1,000-times return again?**
Can cryptocurrencies record a growth of 1000-times again and hit the $200-trillion mark? No chance, says Ethereum co-creator Vitalik Buterin.
A thousand-fold increase would mean the current value of $200 billion would grow to reach $200 trillion. That represents 70 per cent of global wealth that includes gold, reserve currencies, and other traditional assets that are utilized as wealth management products.

In a September 2018 interview at an Ethereum and blockchain conference in Hong Kong, Mr. Buterin stated: “There is no chance that the cryptocurrency and blockchain space will see ‘1,000-times growth’ again”. He said that the period of explosive growth in the sphere is likely coming to an end because the level of superficial awareness about the industry has significantly grown, and is likely to plateau. He also believes that the long-term growth of the cryptocurrency market is sensible, as it would undoubtedly be difficult for cryptocurrencies to represent the vast majority of the world’s wealth.

He said this would require banks operating the $30 trillion offshore banking industry and investors holding wealth in gold to switch to cryptocurrencies as the primary store of value. Mr. Buterin predicts that markets are slowing and reaching a state of maturity and likely to plateau. The trends in bitcoin trading statistics seem to confirm this.

According to CoinMarketCap, crypto markets saw a dramatic decline in terms of total market capitalization of all cryptocurrencies during 2018. In January 2018, total market cap of all cryptocurrencies hit $828 billion.

The peak in total market cap was followed by a gradual downturn with a rebound upwards in May 2018 that led to a figure of $198.8 billion as of September 2018, the lowest point since early November 2017.

**Cryptocurrency market: Price volatility will rage on, some feel**

Some experts feel that the bitcoin “rage” will go on. “And so does its price volatility, which can rise and fall by 1,000 points in a matter of days,” according to Prof. Panos Mourdoukoutas, Chair of the Department of Economics at LIU Post in New York.

In an August 2018 Forbes interview, he said investors will find that bitcoin price volatility is just “noise”, which makes it hard to see the position the digital currency will be in, say, years from

---

now. However this market volatility will favour smart bitcoin traders who may be lucky enough buy and sell at the right time, he said.

He and his staff ran two econometric models. One predicted a bitcoin price of $55,931.60 by 2020, the other $2,352.03. The gap is explained by the theory of supply and demand for bitcoins.

**Cryptocurrencies herald a new high-tech payments era: Canadian economist**

Where does government enter the picture?

In a June 2018 paper, Prof. Sheila Dow, of the Department of Economics, University of Victoria, Canada, posed the question: “How does innovation in digital currencies affect the ability of the financial system to perform its socially-useful functions, and what should be the state’s response?”

Dow believes that “cryptocurrencies herald a new high-tech payments era without interference from the state,” which is evidenced from the proliferation of these currencies. It also confirms that they meet a market need for a swifter and more secure payments system with the added attraction of anonymity.

However, she points out that unstable value of cryptocurrencies (and their multiple valuations) make them more a purely speculative asset than a form of money. She also thinks that cryptocurrencies perform some useful functions. Yet they may increase the forces for instability in the rest of the financial system because of their highly unstable state.

To avoid the financial crisis of 2008, she calls for regulation, which goes against the rationale for cryptocurrencies. Recognizing the need for control, there are efforts to obtain Security Exchange Commission (SEC) approval for cryptocurrency exchange traded funds (ETFs). Dow states that promoters of cryptocurrencies recognize the role of the state as enabler rather than constrainer. Dow concludes that there is merit to consider central bank digital currencies a workable, and indeed desirable, as a substitute for cash. However, she warns that there is need to study the financial sector more broadly to prevent another financial collapse.

**Regulation or no regulation?**

Andreas M. Antonopoulos is a Greek-British bitcoin advocate, one of the most renowned experts on the cryptocurrency industry. In a 2014 appearance before a committee of the Canadian Senate, he urged senators to resist the temptation to apply centralized solutions such as formal regulations “to this decentralized network”. He believes there are several built-in regulatory elements in the bitcoin ecosystem. “Contrary to popular misconception, bitcoin is not unregulated,” he said. “Rather, several aspects of the bitcoin network and financial system are regulated by mathematical algorithm. The algorithmic regulation in bitcoin offers users predictable, objective, measurable outcomes, such as a predictable rate of currency issuance. “These outcomes are not subject to the whims of centralized institutions or committees, which are both corruptible and often placed outside of democratic oversight. A bitcoin user can predict

---

7 Monetary Reform, Central Banks and Digital Currencies, Sheila Dow, Department of Economics, University of Victoria, B.C., Canada, June, 2018

(https://www.uvic.ca/socialsciences/economics/assets/docs/discussion/DDP1805.pdf)
the monetary supply 30 years from now instead of hanging on the nuanced intonation of a single adjective by some high official of central banking who can dramatically change an entire country's monetary velocity a week hence.”

Mr. Antonopoulos said most failures in bitcoin security are the result of misguided attempts at centralization and removing control from users. “We cannot protect consumers by removing their ability to control their own privacy and then asking them to entrust it in the same intermediaries who have failed them so many times before,” he said.

Points to consider in your cryptocurrency investment decisions

There are too many options: At the time of publication, there were more than 1,600 different cryptocurrencies, and more seem to be launched every day compared to only one government issued currency.

Too few places to use them: Few merchants will accept them and cryptocurrency holders are known to hoard rather than spend them.

Advertising is being banned: Many media companies have outright banned ads for cryptocurrencies, concerned that their customers will get sucked into something they don’t understand.

Beware of hackers: In 2018, there was another ‘hack’ of the cryptocurrency market, and billions were lost. When’s the last time billions were stolen from a bank?

Governments don’t like them: This is likely the most relevant point. Governments do not want you getting paid in bitcoins, or using bitcoin as your ‘savings’ vehicle. Governments need fiat currency to finance their deficits.

Conclusion
Investors take notice: There is a risk if you are considering investing in cryptocoins or tokens as an alternative to traditional investments, such as savings, stocks and bonds and precious metals and so on. Be prepared to lose your entire investment. It is important to note that these currencies are highly speculative and the market is largely unregulated.

Despite such warnings, there are many arguments and some evidence to support the continued growth of the industry. Studies have illustrated the rapid growth of the bitcoin business ecosystem since its inception in 2010 from a modest eight entities to well over 400 companies and projects in 2015.

I support Prof. Dow’s conclusion that cryptocurrencies merit consideration as central bank digital currencies and are indeed desirable as a substitute for cash. The key strength is that they
meet a market need for a swifter and more secure payment system with the added attraction of anonymity.

But she also warns that there is a need to study the financial sector more broadly to prevent another financial collapse as an absolute necessity or precondition for the introduction of cryptocurrencies by central banks.

Cryptocurrencies empower individuals to control their own finances and set their own financial outcomes and goals. With greater global acceptance of the cryptocurrencies, we may see them as an alternative way to pay for our goods and services. For investors who are willing to take calculated risk and who could spare the money, it may be a gamble and a risk worth taking. After all, many people have become “winners”.

But the same works the other way. People look to invest in cryptocurrencies should be aware of the volatility of the market and the risks they take when buying. They have dropped significantly several times, potentially costing investors their millions.

Because of the level of anonymity they offer, cryptocurrencies are often associated with illegal activity, particularly on the dark web. Users should be careful about the connotations when choosing to buy the currencies.
Branchless Banking Services in Pakistan

Atiq ur Rehman

Introduction
For many people in Pakistan, especially the poor, managing finances can be a painful and stressful experience. Consider the stories of three individuals with whom the author spoke about their experiences with money:

- “When I get my salary,” a cab driver in Islamabad told me, “I take it to my home and keep it in a box.” He added: “There is always a risk of theft”. I suggested him to open a bank account and keep his savings there, to which he replied: “Kon is jhanjhat main parray” (“Why should I put myself in such a cumbersome process?”).

- A farmer in Multan (a district roughly in the centre of Pakistan) said: “When I get cash after selling my produce, most of my earnings go to input suppliers (fertilizer and pesticides), village shop keeper and other lenders including close relatives. Whatever is left I keep it at my home”. He added: “As long as money is lying at my home, I usually have sleepless nights. Threat of theft is always looming. However, with passage of time as amount of money kept at home dwindles, my peace of mind improves. Hence, I tend to spend money as quickly as possible”. I asked: “How often do you carry considerable amount of cash while you visit nearby city”. He replied, “Usually it happens at the end of each crop, when I have to take money to return loans to the input suppliers”. He added: “Whenever I am going to city carrying cash, I am always nervous that anyone may spot the money.”

- I asked similar questions to a female school teacher in Multan. She said: “The day my salary transfers to my bank account, my husband takes me to the bank and withdraws all my salary. We live in a village. My husband can’t go the city again and again so he prefers to withdraw the entire salary in one go. He keeps money at home and uses it to meet household expenses on day-to-day basis”.

Financial exclusion puts people at disadvantages in many ways. They have to contend with negative incentives for savings, inefficient financial management practices, threats of theft or loss, and financial insecurity and so on.

This article presents an overview of branchless banking in Pakistan, and identifies trends, opportunities and threats. It also explains how branchless banking would help the poor. Finally, it presents some recommendations to accelerate the development of financial inclusion.
Benefits of branchless banking

Pakistan has a long-time commitment to financial inclusion, but progress has been slow. The current state of financial inclusion in Pakistan is very poor. Only 10.3 per cent of adults in the country, as revealed in the National Financial Inclusion Strategy, have a bank account, far below the South Asian average of 33 per cent. Women are even at greater disadvantage. Less than 3 per cent of all adult females have bank accounts. The situation in rural areas, where about 60 per cent of the country’s population lives, is even worse. In other words, a large proportion of the population lacks access to financial services.

This is where “branchless banking” steps in. Banks offer a variety of products and services. One of the methods they use is branchless banking, which is the delivery of financial services without brick-and-mortar bank branches. It usually involves the use of technology, such as payment cards or mobile phones, to record transactions electronically and to allow customers to initiate transactions remotely.

Branchless banking can help people in fixing most of the problems highlighted in the three cases above. It can help poor people, especially those who are living in rural areas, to manage their finances more effectively and make their lives less vulnerable. Digital wallets would nurture their habits of saving. The cab driver above, for example, would no longer have to keep money at home. In addition, it would improve documentation. The biggest advantage would be peace of mind. In future, rural residents might be able to reduce the chances of exploitation by village money lenders.

The industry of branchless banking in Pakistan

Branchless banking is making a big headway towards achieving financial inclusion in Pakistan. Its popularity is on the rise, as evident from Figure 1 which shows that the number and value of transactions performed through the branchless banking have increased in recent periods. By the end of June 2018, the number of users had reached nearly 40 million. However, that represents just 20 per cent of the country’s total population.

---

The country has seven mobile banking services (that is, mobile wallet services) available to people in Pakistan. These are JazzCash, UPaisa, EasyPaisa, ZongPayMax, KeenuWallet, UBL Omni and Sim Sim. These services enable people to send and receive money through franchises or specified outlets or specified shops. Besides, they offer a variety of additional services, as summarized in Table 1. The three major service providers are briefly described here:

- **JazzCash** has the biggest market share through a network of 75,000 agents. In 2018, it achieved the milestone of 4 million active users. Total transactions recorded during the first six months of 2018 reached Rs. 350 billion (US$2.54 billion), an 85 per cent increase over the corresponding period of the previous year.\(^{11}\)

- **EasyPaisa** is the runner up in terms of market share. It currently has more than 70,000 shops providing services in different parts of the country.\(^{12}\) Just a few months ago, EasyPaisa achieved the mark of one million active users, 66 per cent of whom performed transactions during September 2018.\(^{13}\) It has also launched a savings scheme known as “Mehfood Bachat Plan”.

---


Ufone is the third largest market shareholder. It provides its services through a network of 23,000 retailers.

Table 1. Comparative analysis of the branchless banking products in Pakistan

<table>
<thead>
<tr>
<th>Service</th>
<th>JazzCash</th>
<th>UPaisa</th>
<th>EasyPaida</th>
<th>ZongPayMax</th>
<th>KeenuWallet</th>
<th>UBL Omni</th>
<th>Sim Sim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposit money</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bill Payments</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Money Transfer</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Easyload</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International remittance</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handset Financing</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATM Card/cash withdrawal</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Donations</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone Banking</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campaigns</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile app</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail purchase</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payments</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Request payments from others</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buy vouchers</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scan &amp; pay using QR codes</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To make use of a branchless banking service, you only require a mobile phone number. It is encouraging to note that the proportion of the population with access to mobile phones in Pakistan has steadily increased.

Almost every household in most villages has at least one mobile phone. According to Pakistan Telecommunications Authority (PTA) statistics, there were about 154 million mobile phone subscribers in February 2019, a penetration rate of 74 per cent. Hence, the basic infrastructure required to promote branchless banking is in place.

The Government of Pakistan, cognizant of the need of financial inclusion, approved the National Financial Inclusion Strategy in 2018. To implement the strategy, some interventions are in the process of development.

---

One of such interventions is the “National Financial Literacy Programme for Youth”, recently launched by the State Bank of Pakistan (SBP). It aims at improving financial literacy among youth. It creates awareness among school, college and university students in understanding the importance of saving, opening bank accounts and managing financial resources. It is expected that the project interventions will increase the demand for branchless banking and will accelerate the trend towards it.

**Issues and challenges**

Reaching the unreached continues to be a big challenge. First, as noted, about 60 per cent of the population lives in rural areas, where access to information is limited. The network of the agents offering branchless banking is very small in the rural areas.

Second, women lack economic empowerment. In the majority of the families, women are not allowed to open any bank account or make any financial transactions.

Third, the literacy rate is very low. More than 40 per cent of the population is not literate.

Fourth, the nation lacks saving habits. The gross savings rate in the country is just 5.5 per cent.\(^{15}\)

Fifth, common people, especially those who are not literate, have concerns about the security of their money.

Finally, people fear digital transactions. Most small traders, especially shop keepers, are afraid that digital transactions would expose them to the tax authorities. However, these issues can be overcome with appropriate interventions by government, financial institutions and telecommunication companies.

**Recommendations**

Here are some key recommendations for promoting branchless banking in the country:

- Special incentives should be offered to companies for opening outlets/appointing agents in rural areas. Such incentives may include tax incentives.

- To create awareness among the masses about financial and banking services, lessons on saving, investment and bank accounts should be included in the curriculum of schools and colleges.

- Vertical growth is equally important, as is the horizontal expansion of the services. In cities, there is need to promote mobile and internet banking. It is encouraging to note that the appropriate infrastructure is already in place. According to PTA statistics,\(^ {16}\) there were about

\(^{15}\) https://www.ceicdata.com/en/indicator/pakistan/gross-savings-rate

\(^{16}\) https://www.pta.gov.pk//en/telecom-indicators
62 million 3G/4G (3rd and 4th generation technology of broadband Internet) subscribers in February 2019, a penetration rate of 30 per cent.

- The National Savings (a government financial institution which is mandated to promote and inculcate the habit of savings among people) may sign agreement with branchless banking service providers to mobilize savings from rural areas. The National Savings may offer slightly higher rates to women and children to promote financial inclusion.

The last word goes to a rickshaw driver whom the author met in the city of Sukkur, in central Pakistan, the 14th most populous city in the country:

A rickshaw driver in Sukkur said: “I belong to a poor family which lives in a village. It is 40 km away from the Sukkur city. My father had taken a loan of Rs. 5,000 from a money lender to incur expenses on his marriage ceremony. My father worked hard to pay back the loan. However, it was not easy. “Whatever he used to earn, he would pay more than half of that to the money lender. My father put me at work when I was 13 or 14, with the hope that our living would improve. Initially I used to earn only few hundred rupees a month. Later, it increased to two thousands. “However, my father’s earning and my earning put together were not enough to pay back the entire amount of loan. When I reached the age of 20, we yet owed loan to the money lender. I thought this game is endless.”

Questioned further, he replied, “None of us was literate. Whatever the money lender used to indicate we had to pay. In order to change the fate of my family, I came to Sukkur city on the suggestion of a friend. Here I started working as a daily wager”. He added: “Later I learned how to drive and rented a rickshaw. Now I earn about 12,000-13,000 per month. I send Rs. 5,000 per month back to my family”. In response to a question related to outstanding obligation, he said: “My family is yet to pay Rs. 50,000 to the money lender”.

In response to another question, he said, “I send money through any relative whoever is on a visit to city”. He was hopeful that by the end of next year, he will be able to get rid of the generation-old loan.
Issues of Financial Literacy in Pakistan

Sehrish Fatima,
Associate Manager Monitoring and Evaluation (NFLP-Y)
National Institute of Banking and Finance, Islamabad, Pakistan

Pakistan has the lowest financial literacy, or knowledge of financial institutions, in the world among developing countries. About 100 million adults in Pakistan (roughly half the country’s population) do not have access to formal and regulated financial services.

Among women, the situation is more severe; less than 5 per cent of women are included in the formal financial sector, compared to South Asia’s average of 37 per cent. In addition, only about one in every seven Pakistani adults has a formal bank account.

Pakistan was 16th among 26 nations ranked by the Brookings Institution in its 2017 annual Financial and Digital Inclusion Project. It examines efforts across a diverse array of nations to advance access to, and usage of, secure, affordable and formal financial services among underserved populations.

Pakistan scored 69 per cent in the Brookings assessment of three “dimensions” of financial inclusion: mobile capacity, regulatory environment and the adoption of traditional and digital financial services. The leading nation, Kenya, ranked at the top for the third year in a row, with 86 per cent. Below is a chart that illustrates the total adult population and financial account ownership among adults in Pakistan.

This article highlights issues in financial literacy in Pakistan and suggests measures to increase financial education in the nation, which will eventually result in gains in financial inclusion.

Financial literacy: The tools required to make sound financial decisions

Financial literacy is a combination of the awareness, attitude and behaviors necessary to make sound financial decisions and achieve individual financial well-being. A number of countries have now carried out financial literacy surveys of their adult populations, which provide insights into savings-related knowledge, attitudes and behavior.

These surveys suggest that people are ill-equipped to make complex financial decisions, do not plan ahead sufficiently, and have a poor understanding of investment concepts. In a financial crisis, children and youth are uniquely impacted by the complexities of household finances. Moments of financial trouble are opportunities for children and young people to learn about personal finance and to improve their own money management skills.

The lack of financial access creates multiple problems for people, including financial shocks, unexpected expenses and being excluded from savings services. The lack of adequate financial knowledge makes the average person more vulnerable to imprudent investment and savings decisions.
Regional comparative statistics show that Pakistan falls into the lower ranks of various financial inclusion indicators, such as savings and investment, which include insurance penetration and participation in pension and mutual funds.

In Pakistan, a significant proportion of people are outside formal financing, that is, they don’t use any financial institution. Subsequently, a significant proportion of informal financing does not support the economy as it remains outside the financial institutions.

On the other hand, improved financial literacy may build public confidence in financial institutions, leading to greater inclusion and thus encouraging savings and long-term financial investments. At the same time, financial literacy gives consumers the tools required to make vigilant financial decisions, and to understand remedy options if disputes arise.

Increasing financial literacy helps to promote financial inclusion, which ultimately helps and supports the economy. According to the World Bank, financial inclusion is an ability through which citizens can responsibly avail themselves of financial services, such as banking, insurance, transactions, investment and credit. Financial inclusion is generally classified as access to formal financial services.

Governments all over the world seek economical approaches to increase the population’s level of financial literacy through the formation or development of national strategies. The goal is to provide learning opportunities at different levels of education (A. & Messy., 2012). However, comprehensive strategies for educating consumers about personal finance have not yet emerged.

**Strategies for increasing financial literacy: Concerted effort from stakeholders**

Any successful strategy to enhance financial literacy requires concerted efforts from different stakeholders such as telecom companies, educational institutions, and so on. However, the role
of financial institutions is critical, as they would be the immediate beneficiaries of the financial literacy.

The government of Pakistan has recognized the fact that ongoing financial inclusion programs must be accompanied by enhanced efforts to improve financial literacy. Therefore, under the directives of the State Bank of Pakistan designed to support and enhance the financial literacy eco-system in Pakistan, the National Institute of Banking and Finance has launched the National Financial Literacy Program for Youth (NFLP-Y).

The program aims to impart essential financial literacy education to Pakistani youth and school-going children for strengthening their money management skills and understanding of financial matters.

NFLP-Y is expected to serve as a medium to connect youth with financial institutions that offer banking products and services. The program will primarily target three age groups (school children aged 9-12; adolescents aged 13-17; and youth aged 18-29) across 45 selected districts of Pakistan including GB & AJK.

NIBAF aims at reaching 1.6 million children, adolescents and youth through classroom training and digital learning platforms during the next five years, that is, 2018 to 2023. The impact of such programs can be translated into broader terms, which leads to strengthen and improve money management knowledge, skills and behaviors among youth. It will inspire young people to set financial goals through savings, budgeting and planning for their future.

As consumers of financial services and products, they should know their rights and responsibilities. Projects such as NFLP-Y help youth to develop savings habits, use financial institutions for transactions and reinforce positive behavior through offline and online trainings. The positive behavioral change will ultimately increase financial inclusion and provide requisite support to the economy.

**Financial literacy leads to higher savings: Study**

A 2016 study in the Geist Science’s *Journal of Education and Social Sciences* examined other aspects relating to the level of financial literacy in Pakistan. For one thing, it found that individuals who have more financial knowledge usually save more. “Financial literacy is a vital determinant of individual savings,” it said.

The results of the Geist study also showed that middle-aged and older people are careful in spending their money. But it also found that male respondents usually have better saving habits than women.

Based on evidence, the paper suggested that it is important for policymakers and financial regulators of Pakistan to increase the financial literacy of the masses in general, and especially the female population.
“Hence, policymakers may think of developing programs that aim towards the financial education of women,” it said.

Conclusion

Pakistan is in a dire need of robust financial planning and support to strengthen her shaky economy. A project such as the National Financial Literacy Program for Youth (NFLP-Y) is a stepping stone toward financial inclusion on a national level that will impart knowledge and understanding of financial concepts, banking/financial products and services in youth and children.

Making children and youth financially literate, and providing similar support for women, will help in developing skills and attitudes towards budgeting, savings, investment, debt management, financial negotiations. And it will further facilitate in fostering behavioral changes toward strong financial management.

It is, therefore, suggested that the financial literacy projects should be encouraged and facilitated on a national level. Furthermore, steps should be taken to include basic financial literacy in the school curriculum so that children and youth will be able to plan, secure and improve their financial future.
Digital ID: Key to Canada’s future?

John Flanders

Emma is a 42-year-old restaurant owner who for the last five years has run a small chain of successful restaurants in Fredericton, New Brunswick, the largest of Canada’s Maritime provinces. Her businesses have generated enough excess income that she has decided to expand her operations to two new locations in other cities.

How she does it without digital identity: Emma researches what licences, permits and business registration documents she needs to obtain to open the new locations. The complicated process is daunting; there is so much paperwork to open the new locations she puts off getting it all together.

How she does it with digital identity: Emma connects to her secure digital government portal with Service New Brunswick (SNB), the province’s chief provider of front-line services to the public. She already manages her existing business permits and licences here so she is familiar and comfortable with the process.

She easily starts the process of registering her new businesses online. SNB guides her through the process to validate information about the proposed locations, relevant permits and licences for her restaurant type, and any other requirements she must meet.

Since SNB can verify that Emma is a real person who is an existing business owner, there are fewer hurdles to show that her business application is legitimate. She completes her applications and awaits approval.

Digital ID systems are evolving rapidly around the world, but there’s still a long way to go.

According to the World Bank, more than 1.1 billion people are unable to prove their identity and, therefore, lack access to vital services, including health care, social protection, education and finance. The majority live in Africa and Asia, and more than a third are children who are unregistered.
More and more countries are seeing the need to find a solution to the identity challenge. Estonia and India are two that have made strides in digital ID. Canada considers their experiences instructive.

Emma’s story above is just a scenario. But it relates how one businesswoman might use digital ID as a tool for her small business enterprise in New Brunswick, one of 10 Canadian provinces.

New Brunswick, only the eighth most populous province, with roughly 762,000 people, is in the forefront in Canada. In April 2018, the province announced a five-year strategy to position it as a truly digital society. It is hoped that by 2022, every New Brunswick citizen will have a secure e-identity, or e-ID.

**Canada playing catch-up**

Canada, as a whole though, is playing catch-up. Emma’s story comes from a report prepared by the Digital Identification and Authentication Council of Canada (DIACC), a non-profit coalition of public and private sector leaders. The council is committed to developing a Canadian digital identification and authentication framework, with a goal of enabling Canada’s full and secure participation in the global digital economy.

“Digital identity is critical to the development of the Canadian digital economy,” DIACC’s report states. “It is a key tool in making digital services safe, secure, efficient and accessible. Without it, many of the issues we encounter will be magnified by the rapid increase in high-connected digital services.

“For the Canadian digital economy to be able to reach this potential, it is vital that consumers/citizens and businesses are provided with trusted digital identities that allow them to access digital services efficiently and safely.”

This report assesses some initiatives for digital ID internationally, and explores efforts in Canada to develop a digital identification framework.

**Digital ID: A way to identify yourself electronically**

So, what is “digital ID”? Basically, it is a way for people to identify themselves electronically without the need to present physical documents or walk in person into a government office.

A digital ID is the electronic equivalent to an individual’s identity card. You can present a digital ID electronically to prove your identity or your right to access information or services online.
Neil Parmenter is president and CEO of the Canadian Bankers Association. It has spearheaded a drive for a digital identification system to unlock the full potential of the Canadian economy. He says the current system is deficient in three major ways:

- It is outdated, especially when it relies on physical documents such as driver’s licences and utility bills. These documents can be forged or stolen and used fraudulently.

- Even today’s technology-based approaches are clumsy. The two-factor identification sequence used online, where you enter a user name and password, can be easily compromised. And it’s a hassle if you have dozens of passwords.

- Inefficient methods of establishing identity are a drag on economic growth. They slow down the speed of transactions, introduce uncertainty and are prone to costly errors. Nations around the world realize this situation is untenable.

An individual’s identity is composed of different attributes such as name, date of birth, address and citizenship. Mr. Parmenter said it is important to differentiate between digital identification and digital authentication.

“Digital authentication is something most of us do every day – logging on to our favourite social media site, signing into an account with our preferred ecommerce retailer, or even accessing our mobile device through a thumb scan,” he said.

“Authentication is the act of proving that the person accessing my account or device is me, usually through a PIN, password, biometric identifier or other form factor. Authentication is designed to answer the question “Is that you?”.

Identification, by contrast, is more complex, he said. Identification is intended to answer the question “Who are you?”. Digital ID is the challenge of answering “Who are you?” with a high degree of certainty, without resorting to face-to-face interaction and the exchange of physical documents.

**Digital identity systems: A global view**

Digital identity is well established as one of the most significant trends in technology in the world.
The ID2020 initiative, in which the United Nations is a partner, says “identity is foundational for political, economic and social opportunity. More and more countries are seeing the need to find a solution to the identity challenge.

Numerous new national eID programs, including card or mobile-based schemes have been launched or initiated, in countries such as Algeria, Belgium, Cameroon, Ecuador, Jordan, Kyrgyzstan, Italy, Iran, Japan and Senegal. There is even a pilot scheme in Myanmar.


In Canada, the federal minister of innovation, science and economic development in October 2018 concluded a national consultation on digital and data transformation. The consultation’s goal was to better understand how Canada can drive innovation, prepare Canadians for the future of work, and ensure that they have trust and confidence in how their data are used.

**Estonia: one of the most advanced digital ID frameworks**

Estonia, the northernmost of the three Baltic states, is frequently cited as having one of the most advanced digital ID frameworks; all citizens have a digital ID to access government services.

Legislation ensured that all Estonians were issued “smart” ID cards. The ID card was introduced with two separate PINs, one for authentication and the second for digital signatures.

Another piece of legislation provided the legal foundation for accepting digital signatures through the use of digital ID cards. The private sector also adopted the digital ID framework, enhancing the acceptance of the new system. The legislation allowed the financial services industry to use digital ID to offer banking and other services.

By 2014, digital ID had been used more than 80 million times for authentication and 35 million times for digital transactions, a significant achievement for a nation of only 1.3 million people. The improved efficiencies resulted in savings estimated at the equivalent of 2 per cent of Estonia’s GDP.

**India: Supreme Court upholds validity of ‘Aadhaar’**

In 2009, India launched a digital ID system that became the world’s biggest biometric database to create a unified nationwide identity management program. Now known as Aadhaar, the
program assigns a unique 12-digit identification number to Indians after collecting their biometric data and photographs.

Overall, the system has helped save the government about US$9 billion by improving efficiency and reducing fraud. Adoption of the new system has been strong. India has expanded its database to more than 1 billion users covering roughly 95 per cent of the Indian population.

In September 2018, India’s Supreme Court upheld the validity of the digital ID program, but imposed restrictions on its use. One limitation prevented the government from sharing the data of citizens with private companies.

Four out of five Supreme Court justices said the program is constitutionally sound for the distribution of state-sponsored welfare subsidies in a country where nearly a quarter of the 1.3 billion-strong population is poor. However, it cannot be made mandatory for opening bank accounts or providing mobile-phone connections, though it is required for Indians paying income tax.

In both India and Estonia, digital ID has become a force in driving the financial, accounting and banking ecosystems to meet the desired outcomes of economy, efficiency and effectiveness at all levels – international, national, sectoral, organizational and individual.

Canada: Citizens, businesses and governments all stand to gain, CBA insists

In a January 2019 speech to the Economic Club of Canada in Toronto, the CBA’s Neil Parmenter said the need to modernize Canada’s outdated paper-based, face-to-face process is widely recognized. “But the path to getting there has been unclear,” he said.

The CBA is calling for a federated model of digital ID because it would align with Canada’s political structure. A federated model works by creating linkages between federal and provincial identity management systems.

“Right now, identity is spread across multiple isolated regimes in Canada,” Mr. Parmenter said. “The federal government has social insurance and passport information. The provinces manage health cards and driver’s licences.

“The first step in our model envisions maintaining these distinct systems, but connecting the disparate elements in a way that someone’s identity can be authenticated electronically, using a combination of different attributes. Instantly verifying who someone is using multiple digital reference points is more secure than relying on a photocopy of a driver’s licence.”
All Canadian stakeholders – citizens, businesses and governments – stand to gain in several ways from an effective ID system, Mr. Parmenter said. These include cost savings, fraud reduction, improved regulatory compliance and enhancing privacy.

He cited a report that noted roughly three-quarters of Canadian businesses are affected by online fraud and fraud-related crimes costing between $15 billion and $30 billion a year.

Mr. Parmenter said that to give effect to a digital ID system, Canada will need to follow the same underlying path as both India and Estonia.

“That is, it will need to build a legislative and regulatory environment that enables a digital ID system to be built, accessible to all, and that empowers industry and government to accept the digital ID as it comes to market.”

In that case, perhaps, all the Emmas who operate small business enterprises in Canada will be able to participate fully in a safe, secure and trusted ecosystem for Canadian digital identity.

References

“Canada’s Digital ID Future, A Federated Approach”, Canadian Bankers Association, white paper


“Digital identity trends – 5 Forces that are shaping 2018”, Gemalto

New Brunswick Digital ID, Government of New Brunswick
Introduction of authors

- **Atiq ur Rehman (Malaysia):** He holds a PhD in HRD. He is the Chief Operating Officer of People Talent Tech, Sdn Bhd. Cyberjaya, Selangor, Malaysia. His email is: atiq787@gmail.com

- **Sandiran Premakanthan (Canada):** He is the Founder President/Chair of IOCOM. He holds a Master’s in Business Administration (MBA) from the University of Ottawa with concentration in Finance, Accounting, Auditing and Evaluation. He is the President and Principal Consultant of Symbiotic International Consulting Services (SICS), Ottawa, Canada.

- **Sehrish Fatima (Pakistan):** Associate Manager Monitoring and Evaluation (NFLP-Y) At the National Institute of Banking and Finance, Islamabad, Pakistan.

- **John Flanders:** He is a journalist, part-time editor, HillNote Series, Library of Parliament and for the Parliamentary Budget Officer in Ottawa, Canada.
Call for articles

Dear Sir/Madam

The IOCOM Digest and Dialogue (IDD) is an e-journal of the International Organization for Collaborative Outcome Management (IOCOM). It is web-based openly accessible periodical published on a quarterly basis. Its readers include members of the IOCOM present in more than 80 countries with a distribution of about 5000 active readers. Readers tend to be (managers, directors, consultants etc.,) with an interest in exploring how to improve the delivery of outcomes across diverse societal sectors.

The editorial team invites you to write 2000-2500 word articles on any of the outcome management ecosystems and sub-themes. Articles on a chosen sub-theme should address the impact or influence on targeted populations in society. Please e-mail your interest to write an article indicating the title and an abstract of about 100 words.

Outcome management ecosystems

This concept of business ecosystems could be adopted to develop a tree of outcome management ecosystems. Here are some examples of outcome management ecosystems:

- Leadership and people management ecosystem and subsystems: Leadership development, leaders & managers, union-labour management, strategic planning and management, facets of human resources management; building & leading teams, negotiation and conflict resolution, complex employee behaviours in the workplace; motivating people, recruitment, retention, staff/employee appraisals, career & professional development, building employee capabilities, stress management, work-life balance, women & gender studies, organizational justice, participatory management.

- Financial, accounting and banking ecosystem and sub-systems: corporate finance, international finance, forensic accounting and fraud investigation, financial economics; cost-benefit analysis, contribution analysis, banking ecosystems: money laundering, digital currency, fintech, cryptocurrency, financial inclusion, innovative financial solutions for poor (micro financing); financial insurance; financial risk management: risk & loss control management.
• Business Management/Administration ecosystem and subsystems: business economics; business law, organizational behaviour, business ethics; business continuity, management reporting.

• Oversight management ecosystem and interconnected sub-systems: evaluation, total quality management (TQM) and ISO family of standards; continuous improvement, auditing ecosystems: Auditing Environmental and Occupational Health & Safety (OH&S) Management Systems.

• Government and Non-government organizations management ecosystem and sub-systems; Good governance, organizational diversity, gender and minority issues at workplaces, cultural diversity, diversity and talent management, social and functional categorization, diversity and ethical issues.

• Digital economy management ecosystem and sub-systems: digitization, automation, digital transformation, transparency in e-government, e-democracy, citizen-centric e-government, development of smart cities, integration of e-government initiatives, challenges to digital governments. managing change during the implementation of e-government initiatives, trends in e-governance.

• Information technology and information management ecosystems and sub-systems: Information resource management; information and communication technology (ICTs); digital preservation, cybersecurity, internet, data ecosystem including big data, data analytics; artificial intelligence, blockchain, machine language.

• Learning and innovations ecosystem, and sub-systems management of Innovation; Learning ecosystem, learning culture, learning fit, measurement, innovation ecosystem, start-ups ecosystem, technology eco-system; innovation, law, and technology.

• Industrial/Manufacturing management ecosystems and sub-systems: product design and development, Production management; Plant maintenance; Statistical Quality Control, Quality Assurance; Productivity sciences ecosystems: Industrial Engineering/Work study (Motion & Time Study), Method Study (Process Re-engineering), Work Measurement, Ergonomics and Workplace design; Operations management; Robotics, Marketing and distribution.
• Supply chain management ecosystem and sub-systems: logistics, procurement, product life cycle management, asset management, supply chain planning, supply chain enterprises applications; supply chain visibility, green supply chain, risk and supply chain resilience, integrated logistics hubs, One Belt One Road (OBOR).

• Engineering management ecosystems and sub-systems: civil engineering; mechanical engineering, electrical and electronics engineering, aeronautical engineering, architectural engineering, computer & software engineering, environmental science engineering.

• Agricultural management ecosystem and sub-systems: agricultural policies, agricultural management services, food security and environment, sustainable agriculture, gender in agriculture, trade of agricultural commodities, World Trade Organization (WTO) agreement on agriculture, use of digital technology in agriculture, land grabbing, natural disasters and resilience;

• Health management ecosystem and sub-systems: patient care, health outcomes and quality of life; health information systems ecosystem: eHealth: informatics, innovations and information systems; occupational health & safety: law & regulations; occupational hygiene; health law, ethics, & policy; health administration, quality of life, health emergency response management, health services research, pharmaceutical outcome research management and policy.

• Criminal justice administration ecosystem and sub-systems: criminal law; Law enforcement (law & order), legal administration, offender (correctional) management; parole system, crime & socio-Legal Studies, e-justice.

• Education management ecosystem and sub-systems: Educational administration; e-educational environments; Educating citizens of the 21st century; collaborative learning culture; collective intelligence; emotional education (social and emotional well-being); ecology of learning ecosystem: families, schools, community, networks and society.
Four possible levels of outcome management ecosystems and sub-systems:

- Those driven by clusters of management and technical disciplines;
- Those driven by sector agendas: agriculture, education, health, social services and so on;
- Those driven by national (country) level results agendas (political agendas); and
- Those driven by international and global agendas: climate change, sustainable development goals, World Health Organization (WHO) and other United Nations (UN) agendas.

With kind regards

Editorial Team

**Volume 4, No. 4 – Oct-Dec 2018**

**Issue 4.4: Supply Chain Ecosystem**

Sub-themes: Supply chain management ecosystem, Supply chain visibility, Green supply chain, Risk and supply chain resilience, integrated logistics hubs, One Belt One Road

**Last date for the submission of articles: 30 June 2019**

**Volume 5, No1 January – March 2019**

**Issue 5.1: Government and Non-government organizations management ecosystem**

Sub-systems; Good governance, organizational diversity, gender and minority issues at workplaces, cultural diversity, diversity and talent management, social and functional categorization, diversity and ethical issues.

**Last date for the submission of articles: 15 July 2019**

**General Submission Guidelines**

- Words limit: 2000-2500
- Referencing/citation Style: APA (6th ed.);
- Font size: Times New Roman, 12 pts
- Previous issues are freely accessible: [http://iocomsa.org/node/121](http://iocomsa.org/node/121)
- Send your articles to: editorsIDD@iocomsa.org