

*A Computer is
an electronic device that aids data
processes and Human processes.*

Ai *Artificial Intelligence (AI)
is highly capable of performing any task that
requires human intelligence and beyond.*

Bi *Business Intelligence (BI)
can potentially transform any organization's
operational efficiency and impact on the
bottom line profitability.*

The role of Artificial Intelligence in driving business process

Information Technology (IT) and Systems (IS) has involved extensively that it changed the business operations and processes landscapes. Such evolution introduced concept such as Artificial Intelligence (AI), Business Intelligence (BI), and Enterprise Resource Planning (ERP) etc. This concept when deployed effectively and efficiently, can potentially transform any organization's operational efficiency and impacting on the bottom line, profitability.

Artificial intelligence is a concept introduced in the early 1940s due to the invention of programmable digital computers. Throughout the years, this has been transitioned to an extent that AI is highly capable to perform any task that requires human intelligence and beyond.

The economic and business potential of Artificial Intelligence has filtered through boardrooms and conferences as mechanism to transform operational efficiency, effectiveness and profitability. IT investment remain a critical decision undertaken by executive management in order to create value for their stakeholders. This article offers perspective on how organizations can leverage their IT investment in unlocking business values to their stakeholders and presents a conceptual framework for how this can change industries and firm strategic capabilities.

IT Investment as a value driver.

It is evident that organization regardless of size and magnitude invest heavily in the Information Technology to drive productivity, efficiency and responding to the customer's needs with a robust speed. However the question of the relevancy, appropriateness and suitability remain critical questions considered at C suite level.

The question to be addressed is how organization can leverage their IT environment to dominate the market and own bigger share of their customers wallets and improved customer services. While there is no comprehensive guideline as to how organizations can leverage their IT investment, executive management need to obtain a thorough understanding of their operating environment, industry/sector in which they operate and most importantly their target customer's expectations.

Understanding of operational processes and System

Due to the evolution of IT and the rapid speed of change, executive management should perform the resource audit as frequently as possible. Resource audit will aid in understanding the following:

- IT capabilities and capacity.
- In-house expertise
- Core business process activities
- Non value adding business process activities (Activity Based management concept)
- IT governance and risk management

This exercise will strategically position any organization to acknowledge and embrace their strength and weaknesses, opportunities and threats, which can be seen as crucial process for strategic business planning.

Challenges faced by organization globally is a question of what IT investment to make and where to source. Most end up following the IT Investment trends that might not be appropriate, suitable and relevant to them. This is experienced mostly in big corporate where decisions are rushed and there is a lack of collaboration. Based on practical experience, let's look at the situation where one of African major Bank decided to automate their supply chain processes from placing an order with their suppliers to making payment. The Bank invested heavily in this project, the system was developed and during the testing phase the following emerged:

The system specification was completely wrong as management did not involve the junior staff to understand their day to day activities undertaken.

The system could not be integrated and interfaced with the existing Enterprise Resource Planning system (ERP).

The system could not be linked to financial reporting system, which caused the frustration.

The governance structure was a complete disastrous.

As such the entire group was frustrated and confused. One can only imagine the exorbitant fees paid to the developers and consultant. However the IT leadership acknowledged their mistakes and reassembled a new project team with hands on experience. This is a crucial step in every company's IT planning and it must be an integral part of their business strategy.

However one need to acknowledge how IT investment has been leverage to drive business value and performance in certain sectors. Looking at the global financial service sector, facilitated innovation through product development, customer focused and more personalized services. Millennial define the economy of the future and the recent studies performed in United State indicate that there is a shift in customer preferences and how they are serviced. This represent a group of young people that are technology savvy and prefer convenience, speed and less waiting time. For any organization to win a bigger wallet share of this young generation, a seamless well thought of automation must be implemented. Hence the first part of this article I made reference to understanding the industry in which you operate and your customer preferences.

Continued ►

Many organization pose the question about staff lay-offs, meaning if we automate the order placing process what happen to staff. This is a crucial part of organizational design and development and employee engagement. Due to the IT evolution the company need to reassess their headcount requirements (resource audit) and identify resources that are key to business processes. As much as artificial intelligence can perform any task that individuals can, there is still requirements to direct how this automation can derive value for the organization. So training and up skilling become necessary in order to eliminate any possible wastage in time, production, waiting time etc. So staff can always be redeployed to focus on service delivery. Executive management need to obtain a clear understanding of their business process activities, perform cost benefit analysis per activities, identify those that can be eliminated and automate what's considered core.

Is there a conceptual automation Framework?

Humans performing knowledge work today are complemented by technology increasingly high-value ways. As a result, we are entering a new era of human machine interface for repetitive and rote processes, in which software tools have emerged as "the robots" for knowledge work. The question of whether there is detailed automation or digitalization guideline is being asked by lot of companies. While there is no comprehensive and precise answer, there are common factors that can be considered.

1. Automation as a complimentary to human intervention.

A research conducted by the well renowned consulting company called Cognizant in the United States indicated a deeper understanding of how far, how fast development in process automation, analytics and other operational models will play out in complementing the overall human intervention. This findings indicate that automation or artificial intelligence does not dominate the business processes, but rather work in tandem to help your headcount smarter and business more agile.

2. Potential impact of automation process in your organization

Before any organization decide on undertaking a process automation, the following factors can be used as a guideline:

Before any organization decide on undertaking a process automation, the following factors can be used as a guideline:

- Will the automation result in reduce reliance on multiple systems/screens to complete the process (cost saving on multiple licenses)?
- Does it improve standardization of process workflow across the organization?
- Will the organization experience reduced error rates (integrates lean operations)
- What is the organizational rate on better manage repeatable task?
- Does it create frictionless, straight-through process?

This is not a conclusive checklist, however it provides reasonable assurance before investing heavily into process automation. However the overall impact should be on saving money and driving greater impact from process optimization. Organization want new and innovation ways of achieving and maximizing efficiency from people and processes. For ages the focus has been on the implementation of lean principles (which Toyota got it right), the question is with the arrival of artificial intelligence what levels remained to be pulled?

All other things equal, humans and automation aren't. Artificial intelligence results in standardization which lead to scale. While both humans and robots can drive standard process delivery to scale, an open honest question is which one can do better? For instance an error coded during the automation process will cumulatively built in the system and yielding bad outcomes for the organization. When artificial intelligence can perform more rote tasks less expensively and efficiently, executive management need to take stock and redeploy their

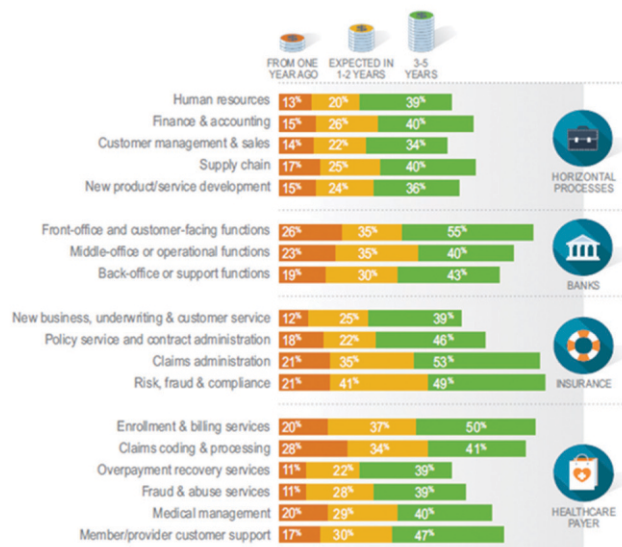
3. Impact on people performing non-differentiating Rote task (non -value adds)

A recent survey by Cognizant indicate that as a result of artificial intelligence, the number of people directly tasked with performing rote tasks will contract significantly in the coming years. The research shows that areas such as more industrialized, general and administrative functions (cost saving on head count). This affect business units such as supply chain management, Human Resource, Finance and analytics. A detailed survey across multiple sectors as performed by Cognizant indicated the following globally:

See Survey Diagram in the NEXT PAGE ►

Robots Make a Money-Saving Assembly Line

Percent of decision-makers realizing at least 15% cost savings across front-office, middle-office and back-office functions as a result of automation.



Source: Cognizant Center for the Future of Work

4. Does it encourage staff to work smarter and be creative

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and capitalizing on their unique capabilities that cannot be replaced by artificial intelligence- that is the ability to learn, relearn and unlearn. For example, such capabilities will include collaboration in a competitive markets, spirit of team work, creativity, constructive problem solving, empathy and human touch.

5. Artificial intelligence must radically improve process outcomes

Lot of companies for in a trap of following the sectorial and markets trends with regards to process automation and fail to focus on real prize and suitability. This automation for automation strategy failed so many organization without deriving the real value of their investments.

The importance of analytics for processing insight and meaning-making is quite immense. The reality is that the digital era today compared to last century's industrial age presents unprecedented ability to make business meaning from big data. The list of game changing and differentiating examples of process analytics is significant especially when using artificial intelligence and machine learning to derive time sensitive outcomes.

The overall impact should be on the ability of any organization to intensify on existing data in order to generate additional sales leads and revenue.

In conclusion, Executive management have a responsibility to engage with staff at different level in order to understand the processes and systems in place, holistically integrate them into ERP to enable integration. The value generated will be in the form of cost savings and new sales generation.



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