

HOW CAN ENTREPRENEURS USE LATEST TECHNOLOGY IN ORDER TO ACCELERATE HUMAN ACHIEVEMENT AT WORK AND DRIVE BUSINESS PROCESS IMPROVEMENTS?

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Abstract: *In today's highly competitive environment, entrepreneurs must consider their productivity levels, in other words they will need to refer to how well their company converts the input (such as capital, materials, machines and labor) into output or goods and services. Improving productivity remains an ongoing activity. Analyzing their space and resources, improving their plant layout and eliminating processes that add no value are critical factors to success. An effective management will always count on the utilization of the latest technology, that will consequently help improve the operations. Having the end goal of fulfilling the objectives of the organization, the entrepreneurial spirit means more than wanting to start your own business, it means holding values like innovation, creativity and passion on a higher level than predictability, profit and stability. In the present article, we are going to have a look at the latest technologies trends for 2020, such as Artificial Intelligence (AI), Machine Learning (MI), Robotic Process Automation or RPA, Cybersecurity or Blockchain. Web-based technologies enable the entrepreneur to dramatically improve the way he or she runs the business, keeping an increased focus on expanding the market share, pursue the cost reduction aggressively, especially under crisis or greater efficiency, as well as preventing customer-service problems.*

Keywords: *Entrepreneur, Effective Management, Objectives, Strategies, Automation, Process Improvement, Operational processes.*

JEL Classification: *M10.*

1. Introduction

Organizations are constantly looking into those areas where they can improve accuracy, effectiveness and/or efficiency and then redesign those business processes with the end goal to realize the required improvements. There is a permanent need to adapt and bring customer satisfaction as quickly as possible, as well as align these with the overall business strategy, due to the fact that expectations change, new technologies emerge and competition grows. A business process can often be broken down into smaller processes and one of options could be the split between Operational, Management and Support functions. Looking at the operational side, this will include core business and create the value stream, such as for example the orders placed by customers, manufacturing tasks or opening bank accounts. Management business process will include corporate governance, forecast, budget, key performance indicators tracking and employee oversight and under supporting type, processes could be such as human resources, accounting and finance or technical.

Given the highly dynamic environment, where the change becomes the rule, not the exception anymore, businesses will survive, operate and progress only if they will adapt to the changes in technology to enhance human capabilities. Rather than waiting for the changes to come, a successful entrepreneur will need to anticipate them and have enough courage to assess their implication to the business.

Technology is helping us resolve issues that human power alone cannot resolve all the time. Different types of firms require different technologies; however, it has been

demonstrated that it is impossible to resolve with a single technology all integration needs. Technology is only a part of the original solution and the entrepreneur's background is really important in different sectors. Technology is good for bringing the change not forcing it. It cannot make employees more efficient. The robots can help us to be more productive, freeing us from most of the time-consuming and repetitive tasks. Computer-aided manufacturing is one of the most important areas of application of automation techniques. Financial institutions and banking have embraced automation technology in their financial transactions. But just because technology is advancing it does not mean it will replace human resources. Technology can perform an adequate job, but we still need the human piece of the puzzle. It is certain that people to people communication remains fundamental where the entrepreneur's contact in the various stages is required.

In this article, we will be discussing about the benefits of using Artificial Intelligence (AI), Machine Learning (ML), Blockchain technology, Robotic Process Automation or RPA, techniques which today are helping entrepreneurs to grow their businesses. An important aspect is that technology alone cannot build a company culture. In the end, it is people who are assigned to work on this technology and to inspire the entrepreneurs to keep their spirit alive. By creating an engaging working environment, interactive dialogues among employees, motivation to the employees, support among them and a fair rewarding system, reflects the culture shape of the company. An entrepreneur should understand what the needs of the company are, by creating a connection with all the stages of management that brings the desired output. Therefore, entrepreneurial spirit and technology should always go hand in hand. Hence, we need an evolving technology as well as intelligent humans.

2. Content

Processes are one of the most important resources in organizations. Improving processes can lead to enhance the organizational performance. Several methodologies are presented for process improvement. There are many processes in organizations that lead to increase the complex interactions between processes and high dimensionality problem (Jeong et al., 2008). In addition, there is a single view to processes in the improvement actions (Houy et al., 2011). Huang et al. (2012) stated that there is a low attention to the internal aspects of the processes. Technology is now evolving at such an increased pace that annual forecast of trends can appear out-of-date before they even go live as a published article or blog post.

Conducting a regular business process improvement activity represents an effective way to establish a systematic approach towards reaching the company's objectives, involving the business practice of identifying, analyzing and improving to optimize performance, meet best practice standards or simply improve quality and the user experience for customers and end-users. Over the time, several different names were given to process improvement such as business process improvement (BPI), business process re-engineering, business process management (BPM) or continual improvement process (CIP), to name just a few. They all pursue the same goal, regardless of the nomenclature: improve productivity, minimize errors, streamline efficiency and reduce waste.

There are mainly two types of business processes, such as formal or formal and they cover a series of company's functions. Irrespective of the process that we are trying to improve, the enhancement approach follows the same path described by the following four steps:

❖ *Identifying the opportunities for change* - this is usually the very first step that should help identify the reason behind the change required in the process. Current challenges and potential associated risks will be part of a process audit. The outcome of this

phase will highlight the areas for business improvement and how each one of these areas impacts the overall organization, different stakeholders (suppliers, customers, employees, government, etc) and resources.

❖ *Analyzing the existing process* - An „as-is” process analysis is usually conducted, once the first step above mentioned is completed. In order to be able to set up realistic objectives, the team will need to fully understand the procedures. There are different tools available at this phase such as surveys, cause/effect analysis or process mapping, to be used with the end goal of identifying any roadblocks, delays, waste, product / service quality issues.

❖ The next step involves *obtaining commitment and support from senior management*, in other words getting their „buy-in”. No matter what is the project type or size, the success of its implementation depends entirely on the senior manager support. The need for change will have to be clearly stated and presented, as well as the way that particular project will impact the organization on the short, medium or long term.

❖ The fourth step refers to *creating the strategy for improvement* – Following the process analysis phase, we will need to have a strategy in place that will include at least the reason why and how certain broken steps in the process should be improved, any financial or other resource type implication. A key aspect here would be related to the fact that SMART („specific”, „measurable”, „attainable”, „relevant” and „time-bound”) objectives will need to be set up and they should align the overall strategic goals.

Looking at the several methodologies that are designed to help the organization identify the bottlenecks in the process, fix those issues and analyze / monitor the success of those changes implemented, we could name some below, considering that each methodology suits a different need. Some methodologies will help mapping out the process flows, some other will focus in particular on the techniques of lean process improvement and another category may be more concerned with changing the company culture, which is the secret sauce in each successful transformation project.

Kaizen methodology is mainly focused on increasing the productivity, efficiency and service / products quality by applying lean and agile practices. 5S model is part of Lean and Kaizen methodologies and refers to the following steps: sort, strengthen, shine, standardize and sustain. PDCA is also part of the Kaizen methodology and stands for plan, do, check and act. Once the process that needs improvement is identified, this technique helps the organizations be more efficient.

Six Sigma is a popular process improvement methodology, which provides a rigorous and structured approach to both help manage and improve performance and to support the transformation of an organization. It helps us use the right tools, in the right place and in the right way, not only in improvement, but also in our day-to-day management of activities (Burghall et al., 2014). Six Sigma involves two ways to break down process improvement through specific steps. These steps include on one side define, measure, analyze, improve and control (DMAIC) and define, measure, analyze, design and verify (DMADV).

Establishing a continuous improvement organizational structure remains key to business success and above all the methodologies available, process automation plays a significant role. Eliminating the manual tasks, reducing human error, enhancing the control are just few benefits to be considered.

Top New Technology Trends

➤ *Artificial Intelligence (AI)* - AI refers to computer systems built to mimic human intelligence and perform different tasks such as decision making, speech or patterns, recognition of images. AI can do these tasks a lot faster and more accurately than humans. AI services are used on a daily basis in different forms, including navigation

applications, smartphone assistants or any other smart home devices, in partical in the United States of America.

➤ *Machine Learning (ML)* is a subset of AI, powers web search results, real-time ads, and network intrusion detection, to name only a few of the many tasks it can do. With Machine Learning, computers are programmed to learn to do something they are not programmed to do: they learn by discovering patterns and insights from data.

➤ *Robotic Process Automation or RPA* - The role of RPA is to automate repetitive tasks that have previously been managed by humans. The software is programmed to perform repetitive tasks in applications and systems. Software is actually a multi-step workflow and interactions with various applications. The journey through RPA implementation has mainly the following steps:

○ Deciding the strategy – whether do it yourself (DIY) or contract from the outside.

○ Select and train a group of people – not only Information Technology (IT) department. Representatives from several fields will want to be part of RPA implementation planning, from business to IT.

○ Identifying the structure of processes in the organization - Process discovery - The goal of projects is, of course, automation - allowing software robots to handle at least some of the work done by humans. This is a noble goal, and for that to happen we will initially have to do a careful study of what those people do on their computers. This type of study will help us to find out which of the many desktop processes are best suited for automation.

○ Select candidates for RPA - To benefit from fast Return on Investment (ROI), we may need to chose processes that have undergone a transformation initiative using the Lean Six Sigma methodology. Very Repetitive Manual Processes, Processes with Standard Inputs that can be read, high volume and frequency processes are most recomended.

○ Map the processes from “As Is” (current) to “To Be” (future). Blockages, inefficiencies and productivity gaps are clear. So are best practices. You can more easily and objectively identify who are the top performers who need help to increase your work speed.

○ Implementation of robots

○ Assess the financial impact of RPA solution implementation

➤ *Cybersecurity* - might not seem like emerging technology, given the fact that it has been around for a while, but it is evolving just as other technologies are. It will permanently evolve, as long as hackers are illegally trying to break even the toughest security measures. It has been proved that the numbers of the jobs for cybersecurity professionals is increasing three times quicker than other jobs in technical domain.

➤ *Blockchain* – In this fast growing industry, blockchain offers security as it could be described in simple terms as data you can only add to, not take away from or even change. Not being able to change the previous block of data is actually what makes it so secure and an important benefit is that we do not need any third party to validate business transactions.

3. Conclusions

The primary contributing factor for a successful transformation will be the capability of the entrepreneur to simultaneously deal with customers, suppliers, product development and technology (van Gelderen et al., 2008).

The main advantage of integrating Lean Six Sigma and Robotic Process Automation – is that we will get to have automated or non-automated processes, but optimized, under the control of our team.

Automation is definitely a wave and the companies would better catch it. The financial impact can be impressive if a Robotic Solution is being developed. There are multiple advantages that a company may obtain through the utilization of an RPA project, among which: the cost of errors will decrease, Business practices will change, and Customers will notice and want more.

Some process improvements that are automated with RPA includes online order processing, categorizing help desk tickets, automated email responses, payroll management and transferring data between systems. This not only helps create more efficiency around business process, but it also helps free up workers to focus on more complex tasks that automation cannot handle. Digital transformation is an option at hand for all firms and this would definitely Reduce the complexity of personnel management.

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