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# EDITORIAL

## A Business Accelerator – The Technology

A management law states that the organization of production (and business) processes are in line with the adopted technological process. But the technological process is the result of technology and developing a product (a business) requires a mix of technologies. For this reason, the management schools registered a high number of requests for technology management topic. Not everybody understands technology; many companies are reluctant to use and apply technology. Others, though they do not understand technology, they will apply it, driven by the flow of change, as a must-have of the season, to be modern. This approach is not a successful one.

Technology is a set of knowledge, attributes available to be used for practical purposes in a certain area/domain. There is a materials technology, but also a design technology, manufacturing, management, research, etc. including a teaching technology. Unlike technology, the technological process is a set of operations to transform resources into results.

**The development of technology** is like creating a product that follows the stages of making technology (when realized); testing (the first application for assessment); launch (technology available on sale). This is where the *life cycle starts*, with embryonic technologies (not yet outlined), emerging (first steps of application), evolutionary (with awareness, but not generalized); mature, obsolete (with no longer added value). Technology is losing its novelty in 8-12 years.

Organizations, they have a portfolio of technol-ogies at different stages of their lifecycle. A.D. Little classifies them as basic technologies (widespread, necessary, but not offering an advantage); key technologies (determines competitive position, ensures differentiation) and auxiliary technologies (are useful but not fundamental). Technologies, classified by *the degree of formalization* (the extent to which exceptions affect the procedures defined by C. Perow) are artisanal technologies, rigid technologies, flexible technologies. By *degree of interdependence* (how departments depend on one another, from technology point of, defined by J. Thompson) are mediating technologies (the product is made in a department through collaboration between producer and customer); sequential technologies (the process is done in a department through a succession of operations); intensive technologies (departments use technologies bespoke, as per requirements).

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Technology, as a product, must be continuously innovated and developed; the outcome of these activities is technological innovation. In democratic societies, the technological innovation takes place and ensures their development, but in dictatorial societies development is based on known technologies, it is limited, and it is not continuous.

The assignment of industrial property rights to technology is made through specific *technology transfer* contracts. There are often limitations on the markets on which it will be sold, or on the quantity produced. Choosing the proper technology can be difficult and there could be some limitations. There it has been found a technological determinism, choosing a technology prevents some future alternatives.

The process of finding new technologies requires the existence of *technological watch*, a search for information about what other companies do or discover scientific novels, inventions, and B.A.T. (Best Available Technology) or BACT (Best Available Control Technology). But the recommendation of such technologies discourages innovation.

Prof. Sorin Ionescu, Editor-in-Chief.

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# ABSTRACTS

## Decisions in Material Technology

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ABSTRACT: *In material science, engineering design and industrial application, the material selection, always was an important issue for processing „new materials", especially composite materials for different industries like: aeronautics, automotive, medical (health), etc.*

*To make the right selection of material for performance enhancement and cost reducing can use multi attribute decision making (MADM) methods such as: AHP, TOPSIS, ELECTRE, VIKOR, etc. About MADM methods we can say they are important for screening and selection of suitable materials. They provide a good data and information about material selection models in industrial application. Each of these methods has good outputs but also limitations. For a composite material, the properties and characteristics of this material influence the process selection. Also, the processing routes (powder metallurgy) are important to define the manufacturing parameters. To illustrate the application of AHP, four different types of composites materials were studied. Paper present an integrated model using a simple, flexible multi attribute decision making methods, AHP, for choosing the proper materials for given engineering design. Based on specific criteria for metal matrix composites (MMC) processing, this paper makes two contributions in composite material designing. For a concluding decision of suitable material a useful tool is Analytic Hierarchy Process for determining the relative weights of importance for a number of performance attributes with interpretation of ranking of selected materials for optimal design.*

KEYWORDS: material selection, composite, multi attribute decision

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# Open Innovation in Technology Upgrading

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ABSTRACT: *Greater world-wide solutions are needed in all areas: health care, transport, climate change, youth unemployment, financial problems, stability, prosperity, sustainability and economic growth. These challenges are an important opportunity to create a new shared value with the help of innovation. The knowledge landscape has changed and with it the rules of competition. The paradigm of Open Innovation (OI) is becoming the standard innovation process and has been already adopted by many firms, organizations and industries.*

KEYWORDS: innovation, closed innovation, open innovation, shared value, intellectual property

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# Technologies for Modeling Business Processes

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ABSTRACT: *Business process modelling is a common practice in process-oriented organizations. There are a number of approaches for modelling frameworks that lead to significant process improvements. The purpose of this paper is to analyse and compare three modern modeling frameworks. In the first section, the following business process models are presented: Business Process Management (BPM), Capability Maturity Model Integration (CMMI), Business Analysis Body of Knowledge (BABOK Guide). Then, the presented frameworks are compared using criteria such as the scope of the models, the field of application, stakeholders, risk management, process complexity, process control and monitoring, continuous improvement.*

*Finally, the paper ends with discussion and conclusions that can be drawn from this study and research on the business modeling process frameworks.*

KEYWORDS: BPM, CMMI, BABOK, comparison, analysis

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# A New Technology to Research Consumer Behavior

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ABSTRACT: *The environment in which the consumer carries out his activities has changed considerably over previous years and is rapidly developing in a rapid manner due to the in-novation and proliferation of the Internet. Customers have a formidable power, as they can get an unprecedented amount of information. Digital innovations such as social media platforms, complex operating phones, and storage of information on online servers have led to a high level of consumer understanding when it comes to searching, selecting and purchasing products. The purpose of this paper is to identify a behavioural pattern of the online consumer and to determine what elements of the actual conversion result. Based on the secondary research of online acquisitions, the results lead to a clear understanding of online consumer behavior and can provide companies in different areas with opportunities to design new strategies that will lead to customer satisfaction and loyalty in the online environment.*

KEYWORDS: online consumer, online consumer behavior, purchase decision, online acquizition

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# Customers' Perception of Telecommunication Services

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ABSTRACT: *Customers' Perception of telecommunication companies is an important factor for service providers to enhance their services and seek advantages in a competitive market to gain customers' trust and loyalty. This paper represents a study of customer's perception for the three leading Mobile Service Providers „Zain", „Ooredoo" and „Viva" in Kuwait's telecommunication market. Statistical analysis was done, using MINITAB and SPSS Software, to show the distribution of customers for the three mobile service providers and to form an idea about the perception of customers for the three providers. Different statistical techniques have been used and the results showed that Zain leads the market for the Network Quality, Viva has more advantage in customer service, and Ooredoo offers more services for customers. In addition, we have found that Age has a significant effect of which younger people prefer to use Viva, Gender, as well as the interaction between Gender and Age, has no significant effect on choosing the Mobile Service Provider, which gives an indication for the Mobile service providers about their targeted group age of customers.*

KEYWORDS: mobile service providers, customers' perception, network quality, value for money, customer services

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# The Gaps Between Expectations and Perceptions on Services Quality

Steliana Valentina Puscasu, Cristina Mihaela Gheorghe
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ABSTRACT: *The paper examines the relationship between what the organization believes it does and its customers' perception regarding gas installations design and execution services. The study is based on a SERVQUAL questionnaire research conducted among employees and customers of the organization Corola SRL. The research results show that the existing gaps between what the organization does and what the customers believe occur due to: a large number of hierarchical levels (gap 1), the insufficient management involvement in ensuring service quality (gap 2), the inadequate quality control system (gap 3), the deficiencies in communicating with the outside (gap 4). The study reveals the gaps that occurred in the gas installations design and execution field due to the fact that many apartment owners have given up the centralized heating system in favour of individual heating systems.*

KEYWORDS: quality service, customer satisfaction, SERVQUAL questionnaire