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## SHARPENING LEADERSHIP EDGE IN THE PUBLIC SECTOR AND PRIVATE BUSINESS FOR ADAPTIVE-TO-CHANGE ORGANIZATIONS

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**Abstract:** *The paper continues the author's research in the area of building the leadership competencies of the people involved in operations and service delivery from both public administration sector and private businesses in order to enhance their organizations' capabilities to adjust to the challenges induced by continuous change of the national and global environment nowadays. Hence, the competency profile for effective leadership is mapped against five enabling features of operations in changing environments: agility, customer centricity and satisfaction, superb execution, wise cost management and ambidexterity. The research has encompassed operations managers activating on the Romanian market in various industries such as financial and human resources services, pharmaceuticals, telecommunications, cable, media and TV, electronics and IT industries, as well as civil servants and public managers in central and local public administration organizations.*

**Keywords:** *Leadership; Change Management; Competency; Learning and Development*

**JEL Codes:** *M1; M5; J24, D23, D234, L2*

*Motto: Success today requires the agility and drive to constantly rethink, reinvigorate, react and reinvent.*

*Bill Gates*

### LANDSCAPES OF CHANGE ASK FOR LEARNING AND LEADERSHIP

Through the consulting, management and education work from 1990 to date, the author became convinced that companies from public administration and private businesses faced a continuously changing environment – greater volatility and uncertainty, where to succeed they need to undertake focused and audacious action to adapt well to significant change. More complexity, higher and higher risks to the people and organizations, the digital revolution – are drivers that factor into the growth and survival of the organizations and have challenged the skills and abilities of both business executives and leaders of entities activating in public sector. The paper proposes to analyze the demanding consequences of continuous change of environment over the competencies of effective leaders towards the building of robust adaptive-to change organizations in the public sector and private businesses. The analysis starts with a point of view on adaptive public and commercial entities in continuously changing environments and highlights five enabling features of operations that forge the organizational fitness to change. The paper continues with the results of author's research on the essential leadership competencies to adapt to change and their development status to date - as observed for over 600 leaders activating in public sector and business entities in Romania.

Let's start with the understanding of complex adaptive systems. Those systems will give leaders a broader perspective on their environments, including the thinking about how best to cope with the unexpected rather than trying to control the future. Fulmer considers that there are three foundations of an adaptive organization: landscapes – to understand the need to adapt, learning – by planning to adapt, creating an adaptive culture and structure, and leadership - to approach complex environment and personally shaping the adaptive organization (Fulmer; 2000). In his view, understanding the changes in environments and fitness landscape means considering for analysis several fundamental forces and spheres of influence (see Figure). The fundamental forces are external factors that cannot be controlled by the organization but need to be monitored and mitigated with care since their change may influence the evolution of a variety of sectors and entities.

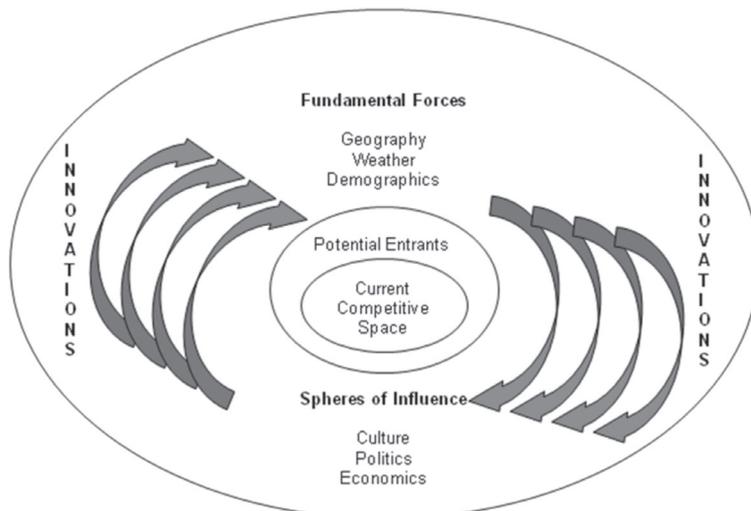


Figure: The Environment (Fulmer; 2000, p.97)

On the other hand, the spheres of influence have the power to shape-up the functioning of the organizations, private businesses or public sector – turning into transforming forces that ultimately may influence the way operations would be conducted.

How to develop such adaptive-to-change organization? Start by cultivating a learning organization that enable planning, forecasting, management of risk and management of uncertainty on the background of an organizational culture that is innovation-open, backed over an organizational structure that allow communication, collaboration and synergy. It is not enough to create processes that enable a response to change. Adaptive-to-change organizations must show the willingness to change constantly, continuously reinforced by the leadership of the organization with audacity, assuming risks and fighting the fear of the unknown and new paths. (Fulmer; 2000)

Striving for this ideal stage of organizational development has different connotations for public sector organizations and private businesses respectively.

Ostroff suggests that the most significant challenge in effecting successful change and performance improvement in the public sector is not primarily on identifying solutions as working around stumbling blocks such as: leaders' appointment policy; their determined tenure in position as compared to their subordinates'; relative organizational disconnection and rigidity of job descriptions and roles for leaders of functional departments (procurement, personnel, budgeting, legal etc); and the public scrutiny that oversee the performance of public servants and public-sector leaders. (Ostroff; 2006) Three key drivers are highly influencing the success of the public-sector change efforts in order to deliver quality public service: exercising leadership and not bureaucracy; building winning relationships with stakeholders; and securing evidence-based decision making and a regulation design according to the regulatory impact assessment. (Mincu; 2016)

As for the private businesses, leaders are called on to deliver goods and services that are better or at least different, cheaper or achieving maximum value as perceived by the customer and more responsive or a set of values related to rapid, flexible, and reliable performance. (Mincu; 2013) Heizer, Render and Munson add that globalization has brought new standards of global competitiveness that impact quality, variety, customization, convenience, timeliness, and cost and more complexity through an increased risk and intensified competition. The areas that make complexity bigger lay with continuous fight to reduce labor costs but to attract and retain talent, to timely understand what the customers need, to enhance quality of goods and services, to implement innovation at any process stage or moment, and to improve supply chain. (Heizer, Render, Munson; 2017):

The author has identified five enabling features of operations in changing environments (Mincu; 2012). *Agility* of operations is a first feature that is conferred primarily by the knowledge of the local public and market

through the knowledge of the local customer or citizen's behavior. Necessarily, those specifics are highly important not only in offering to the customer or citizen the right product or in service at the right moment, but also for the management of resources and management of risk. Key to agile and competitive service delivery is the implementation of IT systems rooted in customer records. This technology can create a centralized repository for all data relating to each customer, linking the relevant account information with an individual's transactional history, preferences and relationships to other accounts.

The line of command of the public servants or professionals' team is also indicative of how much agility would be instilled in the processes; for instance, tight control and approval chain, along to excessive reporting may determine negative effects on agility and timely call for change.

Agility encompasses the strive of the public-sector and private organizations' employees led by their leaders to focus on the execution of the organization's mission, deliver and improve performance in the process. Necessarily, once a mission has been articulated and a change roadmap indicated – identify objectives, set priorities, program roll-out -, the leaders need to establish clear performance-improvement goals and formulate specific initiatives; the full-fledge set of factors – leadership, structure, processes, infrastructure (technology included), people and performance management – must be integrated and aligned. In the process, performance or skills gaps in the organization will be exposed, with an expectation to rapidly develop people where needed. Also the public servants especially need to put to activate their abilities to influence in order to dilute the tendency of bureaucrats to respect and leave barriers as they are - genuine agents of change don't necessarily obliterate them; instead, they find ways to see over and around them with a political savvy attitude.

*Customer centricity and satisfaction* represent the second feature to mitigate changing environments. Whereas leaders and employees in the private business sectors must please customers, lenders, and shareholders, the range of stakeholders that public sector heads must cultivate is encompassing obviously plenty of stakeholders from inside and outside of the public-sector organization. Public-sector organizations are not created to maximize shareholder's value; rather they are meant to contribute to public's welfare by effective and efficient execution of their mission. (Ostroff, 2006) Private businesses, and especially service industries, are typically having the customers at the core of the processes and operations in an attempt to fit to customers' expectations.

For both public sector and private businesses, meeting customer or public expectations may bring a quality relationship between two parties engaged in an interaction that transcend a simple transaction. A satisfaction survey and a robust objection management policy may become critical endeavors to check and take action upon customer and public needs. The responsibility for shaping and implementing an action plan to meet or even exceed the customer or public's needs stay with respective organization and its people. It is important that the front desk people in public administration and private businesses to show kindness, to be flexible enough so that an agreed solution could coagulate and ultimately, to have the authority to implement it for the customer or citizen. Also frequent communication through hotlines, reminders and letters may prove to be paramount to preserve customer or citizen's awareness on their tenure developments, therefore working processes and operations need to be set accordingly.

#### *Superb execution*

Once the core operations strategies are decided in the public or private organizations, the implementation may bring a rich opportunity to innovate, improve, and secure effective resource utilization. Technology is a great enabler of a superb execution. Employing modern software tools give the opportunity to seamlessly interface with the public and other enterprise systems and to extract and exchange all relevant transactional and behavioral data to and from a centralized beneficiaries data repository or, in the case of a more fragmented IT environment, to consolidate all customer information and communications. This versatility facilitates the integration and relative weighting of both quantitative and qualitative risk variables and indicators so that the public and private service providers will be able to more accurately predict the outcomes. The technology capabilities contribute to balance automation with live operator, scheduling operations for the most lucrative moments of the day and week as related to customer's habits; or increasing throughput at peak and non-peak service times.

To ensure superb execution of service delivery, the professional training and development play a key role. During economic downturn periods, more than ever, it is important that companies focus on their customers and

citizens to serve. Such strategies came with their own costs through significant investment into engaged teams of professionals – trained and motivated to stay in touch with the customers or citizens. Any training program must approach both the “hard” or technical skills in the job description of public servants or professionals in private organizations, and “soft” skills i.e., and interacting with the customers or citizens with much care and human understanding, hence securing their satisfaction and trust. Such programs could enhance leadership with respect to developing people.

#### *Wise cost management*

Due to little understanding of the customers, service providers from private business sectors have tended long time towards a “one size fits all” approach. Yet, by early identifying the profile of their customers and customizing contact respectively, the speed and service performance can be significantly improved with a positive effect on the bottom line. The private organizations can model and implement relevant operations for each category, rather than treat everyone in the same manner. This may reduce the labor and costs associated with a transaction for a customer, with existing staff focusing on other money-generating duties – resulting a planning of staff workloads based on priorities far more effectively, with better sales against cost to sell. The philosophy of segmenting beneficiaries is worthwhile for the public sector as well, and may become a good anchor for taking effective decisions.

Evidence-based decision-making is an integral part of the approaches to enhance predictability, improve effectiveness, minimize unintended consequences and, ultimately, increase management legitimacy. It refers to an approach for making decisions that ideally is grounded in the best available research and informed by experimental data evidence from the field and relevant contextual evidence. For the public sector, when evidence is not used as a basis for decision-making, or the evidence that is used is poor, partial and incomplete, the risks of regulatory failures increase because of potential unjustified political and administrative discretion, low value judgments and biases. Typically, decision making that is evidence-based represents the effective way to get to results and deliver performance in the private organizations. If applied consistently in the public administration, evidence-based decision-making is likely to yield a number of benefits that include: ensuring that policies are responding to the real needs of the community, which in turn, can lead to better outcomes for the population in the long term; highlighting the urgency of a problem which requires immediate attention; enabling information sharing amongst other members of the public sector, in regard to what policies have or have not worked; reducing government expenditure which may otherwise be directed into ineffective policies or programs which could be costly and time consuming; producing an acceptable return on the financial investment that is allocated toward public programs by improving service delivery and outcomes; and ensuring that decisions are made in a way that is consistent with democratic and political processes in respect of the transparency and accountability. (Mincu; 2016)

The fifth enabling feature to cope with change is *ambidexterity* that is the ability to commute timely from “volume” to “variety” operations strategies representing a success factor into offering great value service to the beneficiaries (customers or citizens) while ensuring operations effectiveness. Operationally, to switch from serving against the time a lot of customers or public-sector beneficiaries, to a mass customization of the service imposes a high flexibility of operations, defined by thresholds and clear decision to work either with human operator, or by automating the transaction. Obviously, the human operator is assumed to be more expensive yet, expectedly, more effective for service interactions with the customers or beneficiaries.

### **MAPPING THE LEADERSHIP COMPETENCIES FOR SUCCESSFUL CHANGE**

In this section, the author performs the mapping of leadership competencies needed to support the implementation of the five enabling operations features in order to transform the organizations into adaptive-to-change. The mapping is based upon data and findings of several research and consulting projects carried out from 2012 to date, encompassing (a) over 150 senior public servants, leaders and experts from central and local public administration – General Secretariat of the Romanian Government, Ministry of Regional Development and Public Administration, Ministry of Labor, Family, Social Protection, and the Elderly, Ministry of Agriculture and Rural Development, Romanian Competition Council, and ARCUB – The Cultural Institute affiliated to

Bucharest City Hall, and (b) over 450 senior, middle and first-line managers activating on the Romanian market in private organizations from various sectors such as financial services – banking and non-banking, including debt recovery; human resources services; pharmaceuticals - import and distribution of drugs, food supplements and natural products, pharmacy and high-end products retail chains; telecommunications - voice and data services, telecommunication wholesale; cable, media and TV; electronics, import and distribution of computer and copying equipment, software development, IT solutions and services.

The evaluations have employed an instrument<sup>1</sup> based on a set of 50 competencies adapted for the specifics of private businesses (Mincu; 2013), and of the public-sector environment respectively (Mincu; 2016). Being “leadership competent” in the understanding of the instrument was to possess, put to work and give visibility to three facets: knowledge, skills, and attitude, for a selection of leadership competencies seen as essential for the job incumbents, either from public sector, or from private businesses.

The author performs the necessary thinking and research for the group of 600 staff responsible for taking the lead in managing change to ensure adaptive-to-change fitness for the organizations observed. For essential leadership competencies with more than 50 percent incumbents that need development, the author recommends to consider those competencies as immediate targets for learning and development, otherwise the entire organization cannot aspire to adapt to change rapidly.

- *Agility* by activating the competencies as follows:

<b>Essential leadership competencies</b>	<b>Public servants, leaders, and experts</b>	<b>First-level, middle and senior operations managers (various private businesses)</b>
Possessing vision	N/A <sup>2</sup>	75% to develop
Influencing with political savvy attitude	80% to develop	N/A
Informing	50% to develop	N/A
Knowledge of regulatory theory	60% to develop	N/A
Dealing with change, risk and uncertainty	80% to develop	60% to develop
Developing people	N/A	60% to develop
Planning	N/A	30% to develop
Priority and time management	30% to develop	75% to develop
Creativity and innovation/Managing innovation	20% to develop	20% to develop
<i>Readiness for Agility</i>	<i>Extremely low</i>	<i>Extremely low</i>

- Ensuring *customer centricity and satisfaction* by activating the competencies below:

<b>Essential leadership competencies</b>	<b>Public servants, leaders, and experts</b>	<b>First-level, middle and senior operations managers (various private businesses)</b>
Customer/Public focus	30% to develop	15% to develop
Ethical and authentic	5% to develop	4% to develop
Motivating people	60% to develop	60% to develop
Social science acumen	20% to develop	N/A
Developing people	60% to develop	60% to develop
Strive for high performance	30% to develop	N/A
Building teams and team spirit	50% to develop	55% to develop
Creativity and innovation/Managing innovation	20% to develop	20% to develop
Effective problem solving	60% to develop	15% to develop
<i>Readiness for Customer centricity and satisfaction</i>	<i>Low</i>	<i>Low to Medium</i>

- Carrying-out *superb execution* by activating competencies as follows:

Essential leadership competencies	Public servants, leaders, and experts	First-level, middle and senior operations managers (various private businesses)
Effective problem solving	60% to develop	15% to develop
Knowledge of regulatory theory	60% to develop	N/A
Collaborative relationships	25% to develop	N/A
Building teams and team spirit	50% to develop	55% to develop
Social science acumen	20% to develop	N/A
Creativity and innovation/Managing innovation	20% to develop	20% to develop
Dealing with change, risk and uncertainty	80% to develop	60% to develop
Planning	N/A	30% to develop
Organizing work	N/A	30% to develop
Evidence-based/Effective decision making	70% to develop	50% to develop
Interpretation of analysis outcomes	70% to develop	N/A
Recruiting people	N/A	35% to develop
Managing people's performance	N/A	35% to develop
Strive for high performance	30% to develop	N/A
Informing	50% to develop	N/A
Priority and time management	30% to develop	75% to develop
Delegation	N/A	60% to develop
Public service management/Managing operations (process, quality, technology)	40% to develop	40% to develop
<i>Readiness for Superb execution</i>	<i>Low</i>	<i>Low</i>

- For a *wise cost management* by activating competencies such as:

Essential leadership competencies	Public servants, leaders, and experts	First-level, middle and senior operations managers (various private businesses)
Ethical and authentic	5% to develop	4% to develop
Evidence-based/Effective decision making	70% to develop	50% to develop
Effective problem solving	60% to develop	15% to develop
Managing people's performance	N/A	35% to develop
Strive for high performance	30% to develop	N/A
Planning	N/A	30% to develop
Organizing work	N/A	30% to develop
Public service management/Managing operations (process, quality, technology)	40% to develop	40% to develop
<i>Readiness for Wise cost management</i>	<i>Low</i>	<i>Medium</i>

- Getting *ambidexterity* by activating competencies below:

Essential leadership competencies	Public servants, leaders, and experts	First-level, middle and senior operations managers (various private businesses)
Customer/Public focus	30% to develop	15% to develop
Interpretation of analysis outcomes	70% to develop	N/A
Creativity and innovation/Managing innovation	20% to develop	20% to develop
Recruiting people	N/A	35% to develop
Developing people	60% to develop	60% to develop
Strive for high performance	30% to develop	N/A
Planning	N/A	30% to develop
Organizing work	N/A	30% to develop
<i>Readiness for Ambidexterity</i>	<i>Low</i>	<i>Medium</i>

## READINESS OF LEADERS IN PUBLIC SECTOR AND PRIVATE BUSINESSES TO FACE CHANGING ENVIRONMENTS

As it can be observed to *each operations enabling feature*, the status to date suggests that leaders from both public sector and private businesses possess *modest competency development to deal with change*. Significant efforts must be vested into learning and development for the leaders in the organizations, sectors and industries analyzed.

The best change readiness appears for the leaders from private businesses with respect to *wisely managing cost* and *ambidexterity*, supported by good personal development for leadership competencies such as “effective problem solving”, “ethical and authentic”, and “customer/public focus”. While for public sector we could not depict an enabler barely at medium readiness, we must highlight specific competencies that are well developed at leaders from the public sector such as “ethical and authentic”, “creativity and innovation/innovation management”, “social science acumen”, and “collaborative relationships”.

Immediate improvement intervention must be carried-out with respect to all competencies that confer *agility* to leaders from both public sector and private businesses to correct their extremely low readiness for change.

For the public sector, *the rest of enabling features* will represent a second priority for development, especially for ‘technical’ leadership competencies such as “evidence-based/effective decision making”, “interpretation of analysis outcomes” and “effective problem solving”. As for private businesses, *superb execution* must be enhanced by developing the competency of “evidence-based/effective decision making”.

It is important to highlight that the ‘*soft skills*’, i.e., the competencies of leading people, must get attention immediately for both sectors since they need significant upgrade: “motivating people”, “developing people”, and “building teams and team spirit”.

## CONCLUSIONS

When leaders from the public sector and private businesses activate a complex set of competencies, including the much needed ‘soft skills’, they may shape-up their organizations into adaptive-to-change – organizations that are agile, truly care about their beneficiaries, ensure nimble implementation with effective use of resources and technology, and are flexible in managing complex endeavors. Regarding the agility of operations, in the private sector, the agility of employees led by their leaders appears enough in order to focus on execution and improve performance, whereas in the public sector, due to the process execution interdependence between public institutions, the process encounters delays because is more cumbersome. As a result, the operations’ approach and agility in these two cases should be different as actually performances are, while maintaining leaders’ transferability between sectors. The leaders in Romania will still have to complete the challenging learning and development journey to build the necessary leadership competencies to ensure fitness-to-change of their organizations.

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<sup>1</sup> Based on the philosophy of Career Architect created by Mike Lombardo and Bob Eichinger in the early 1990s; for more details, consult Using the Career Architect to Assess and Develop Leadership Competencies, <http://acumen-international.com/site/acumen/files/articles/Using%20the%20Career%20Architect%20to%20Assess%20and%20Develop%20Leadership.pdf>

<sup>2</sup> ‘Not Applicable’, i.e. not included in the set of essential leadership competencies required for job incumbents in public sector or private businesses respectively. Hence, the author did not report their development status in the paper, yet further research may focus on these competencies in the next future as a second-tier leadership competency set.



## ADAPTIVE AND MALADAPTIVE MARKET AND JOB OUTCOMES OF MILLENNIALS' SOCIAL MEDIA USE

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**Abstract:** *This paper provides a dialectical overview of the adaptive and maladaptive outcomes of Millennials' social media use, and links these outcomes to characteristics associated with Millennials, namely: (1) a need for uniqueness or specialness, and attention-seeking; (2) a sense of entitlement. The rise of new types of jobs on social media platforms (e.g., vlogging, live streaming) has potentially been fueled by, and fulfills a need for uniqueness or specialness, and attention-seeking. In contrast, the expression and dissemination of job-related discontent has generally been attributed to a sense of entitlement. I theorize about how the dissemination of job-related discontent may potentially be misconstrued as entitlement, due to the increased visibility and quantifiability of social media information.*

**Keywords:** *entitlement; job outcomes; Millennials; social media; specialness; uniqueness*

**JEL Codes:** *M12; M54; O15*

### THE GENERATION Y DEBATE

A markedly pervasive generational shift that has been highlighted by researchers, business outlets, social commentators, and the media in general alike, consists in the heightened sense of entitlement displayed by younger people (e.g., Twenge and Campbell 2001, Twenge *et al.* 2004, Twenge *et al.* 2008, Twenge and Campbell 2009, Twenge 2014). Specifically, younger generations are more entitled, self-focused, and narcissistic, and the generation that arguably embodies the ideal model of entitlement has been identified as Generation Y (Millennials, or what is dubbed as the 'Me Me Me Generation'; Stein 2013). Millennials have been loosely defined by characteristics such as entitlement and narcissism, and an extremely wide range of measurements have been devised to assess entitlement and narcissism in subclinical populations: the Psychological Entitlement Scale (PES; Exline *et al.* 2004), the Narcissistic Entitlement Scale (e.g., Exline *et al.* 2004, Reidy *et al.* 2008), the Narcissistic Personality Inventory (NPI; Raskin and Terry 1988), the Narcissistic Personality Inventory-13 and the Narcissistic Personality Inventory-16 (Gentile *et al.* 2013), the Five-Factor Narcissism Inventory (Miller *et al.* 2013a, Miller *et al.* 2013b), the Hypersensitive Narcissism Scale (HSNS; Hendin and Cheek 1997), the Crime and Analogous Behavior Scale (CAB; Miller and Lynam 2003), the Narcissistic Grandiosity Scale (NGS; e.g., Miller *et al.* 2013c) etc. Overall, the emphasis on entitlement and narcissism placed by practitioners and the mainstream media alike, in conjunction with discourse associating these concepts to Millennials, have led to the portrayal of this generation as a bleak one, distinctly defined by inflated egos, grandiose sense of the self, attention-seeking, risk-taking, impulsivity, recklessness, aggression, and callousness (e.g., DeWall *et al.* 2011, Gentile *et al.* 2013).

Psychological entitlement, or the stable belief that one deserves superior treatment or special privileges compared to other people (see for example Campbell *et al.* 2004a), has been shown to lead to a slew of negative behaviors and attitudes, including actual and potential counterproductive work behaviors (e.g., Fisk 2010). More specifically, people who rate high on psychological entitlement are on average more likely to demand higher pay, make competitive choices, exert more aggression following negative feedback, and even express more anger toward spiritual higher powers (e.g., Campbell *et al.* 2004a, Exline *et al.* 2004, Grubbs *et al.* 2013). Narcissistic entitlement, a subscale of narcissism associated with psychological entitlement, has been found to predict a series of maladaptive behaviors. Examples include feeling wronged by other people more often (e.g., McCullough *et al.* 2003), a lower likelihood to show forgiveness and a higher determination to seek retribution following offenses

(Exline et al. 2004), and even aggression in the form of applying electric shocks to a person (Reidy et al. 2008).

Apart from entitlement, narcissism also involves a sense of uniqueness, specialness, and superiority (Raskin and Terry 1988). Researchers have suggested that such feelings may be instilled by parents at an early age, out of a desire to help children develop self-worth and self-esteem, characteristics that become exacerbated in adulthood (Stein 2013, see Twenge 2014). Feeling unique or special and acting in such a manner can be an adaptive strategy in organizational contexts. Specifically, a sense of uniqueness or of possessing unique or rare qualities is important, as scarce resources are seen by others as more valuable or of higher quality (Lynn 1991, Cialdini 1995). Examples abound in this respect. For instance, displaying unique names by using middle initials, which are uncommon in everyday contexts, but common in formal ones, leads to heightened perceptions of status and intellectual capacities (Van Tilburg and Igou 2014b). Authors whose names contain middle initials even appear on average earlier in the authorship order of academic psychology articles (Igou and Van Tilburg 2015). Artists who perform unique eccentric acts are deemed as possessing higher artistic capacities (Van Tilburg and Igou 2014a), and a need for uniqueness explains why entitled individuals come up with more creative solutions (Zitek and Vincent 2015). Although a sense of specialness or uniqueness can prove beneficial in organizations, since creativity is associated with novel, unique, and rare ideas (e.g., Kasof 1995), heightened expressions of uniqueness may not always lead to positive outcomes. For example, recent research has found that when individuals perceive creativity as being rare, they are more likely to engage in unethical behaviors, as mediated by heightened entitlement beliefs (Vincent and Kouchaki 2016).

The overarching concept of narcissism is generally represented by the enduring belief that one is deserving of special treatment, by an inflated and grandiose view of the self, by vanity and a sense of uniqueness (see Morf and Rhodewalt 2001, Campbell et al. 2011). At a subclinical level, narcissism has been associated with attention-seeking and self-promotion (e.g., DeWall et al. 2011), sensation-seeking (e.g., Miller et al. 2009), risk-taking (e.g., Campbell et al. 2004b, Lakey et al. 2008), impulsivity (e.g., Vazire and Funder 2006), and aggression following social rejection (e.g., Twenge and Campbell 2003) and ego-threat (e.g., Bushman and Baumeister 1998, Campbell and Campbell 2009). Narcissists also display acquisitiveness (Campbell et al. 2005), focus more prominently on rewards (Campbell et al. 2005, Lakey et al. 2008) and make competitive choices in social dilemmas (Campbell and Campbell 2009). In addition, narcissism predicts over-confidence and expectations to perform better than others (e.g., Campbell et al. 2004b).

In an organizational context, there are many adaptive strategies that narcissistic personalities follow, which is why this type of personality is often found in organizations' upper echelons (e.g., Chatterjee and Hambrick 2007). For example, narcissists display a higher desire to lead (Brunell et al. 2008) or engage in helping behaviors, at least in part due to impression management (Campbell et al. 2011).

However, many of the characteristics associated with narcissism are likely to be maladaptive and counterproductive in an organizational context (Campbell et al. 2011). It has been theorized that narcissists' beliefs of deserving superior treatment may render them likely to experience heightened perceptions of inequity and organizational injustice (Campbell et al. 2011), and empirical evidence suggests that narcissistic personalities do see themselves as being victimized more often (McCullough et al. 2003). This becomes problematic when perceived offenses are not met by commensurate retributions, thus causing excessive retaliatory behaviors (Exline et al. 2004). Insights from the narcissism literature have pointed out that Millennials may be prone to exhibiting disappointment and anxiety in the current unstable job market (e.g., Twenge 2014), and the mechanism theorized as underlying such responses lies in the assumption that the market is one that does not accurately recognize younger people's specialness (Twenge 2014).

Although social commentators and the media in general have widely lamented a society of entitled employed or unemployed youth, recent research contradicts the view that entitlement has increased across generations (Trzesniewski et al. 2008, Trzesniewski and Donnellan 2009, Trzesniewski and Donnellan 2010, Costanza et al. 2012). For example, a meta-analysis by Costanza and colleagues (2012) reveals no generational differences with respect to job satisfaction or turnover intentions. Trzesniewski and colleagues (Trzesniewski and Donnellan 2009, Trzesniewski and Donnellan 2010) raise important methodological issues related to population-level inferences drawn from cross-temporal meta-analyses that used restricted convenience samples in prior work (Twenge and

Campbell 2001, Twenge *et al.* 2008). Despite the fact that the debate is still ongoing, the widespread media portrayal of Millennials as entitled and self-absorbed remains taken-for-granted and widely accepted by the general public, employers, and managerial and practitioner communities (Stein 2013).

### **SOCIAL MEDIA USE**

Different definitions have been proposed concerning the exact make-up of Generation Y, but as a generally accepted time frame, Millennials include those individuals born between the early 1980s and the early 2000s (Stein 2013). This period also coincides with major information and communication advancements, as well as with the development and spread of social media and social networking platforms. As they were experiencing adolescence or coming of age, Millennials could utilize Facebook, YouTube, and Twitter, and later on Instagram, Snapchat, or Pinterest. This also meant that as the Great Recession struck in 2007, Millennials of working age were free to air their grievances and/or describe their job market experiences on these platforms. The increased visibility and transparency of social media information, in the context of recessionary times, may have exacerbated the portrayal of Millennials as entitled, unhappy (un)employed individuals whose special qualities were not commensurately appreciated by the labor market (Stein 2013, Twenge 2014).

Although the use of social media platforms varies according to different goals, and is much more nuanced than previously assumed (American Press Institute 2017), Millennials represent the bulk consumers of these digital platforms (Pew Research Center 2017). In 2016 in the U.S., Millennials officially outnumbered Baby Boomers as the largest generational group in the U.S. (Pew Research Center 2016), and this is important because the Boomer generation is quickly retiring (Kawa 2017). Reaching out to the Gen Y segment through social media platforms has become of paramount importance for companies and marketers (Memon 2017), as Millennials have built a market of their own: "(...) social media marketing has created hundreds of new job titles: brand champions, multi-media communications specialists, social media analysts and social media monitors. These are all roles created by the millennial generation for the millennial generation (...)" (Memon 2017).

### **ADAPTIVE MARKET OUTCOMES**

By using widespread social media platforms, Millennials wittingly or inadvertently contributed to the legitimacy of new forms of jobs to be performed on these platforms. Although the way in which entrepreneurial endeavors or new market categories can gain legitimacy has been addressed by prior work (Navis and Glynn 2010, Navis and Glynn 2011), theoretically or empirically little is known about whether the sheer prevalence of social media platforms provided legitimacy to social media entrepreneurial endeavors or new forms of social media jobs (Singh *et al.* 1986). In the present paper, I do not seek to render any claims regarding the dynamics or causality of the emergence of new forms of social media jobs. I merely provide anecdotal evidence or quantitative information, as to illustrate how Millennials may have used social media platforms in adaptive ways, by creating, or capitalizing on new forms of jobs or job opportunities. I then also address maladaptive job outcomes associated with the use of social media platforms by Millennials.

The website Twitch, acquired in 2014 by Amazon for \$970 million (Luckerson 2014), offers live streaming, or video on demand of video gaming activities (Twitch.tv 2017). On this platform, video gamers can engage in 24-hour gaming marathons, where they interact live with their audience, and where audience members can donate various amounts of money for the gamers to continue streaming (Twitch.tv 2017). This represents a lucrative arrangement for gamers, who raise their professional profiles by having a strong online presence, and who also receive payments through subscriptions to their channels as well as through ads shown on their channels (Twitch.tv 2017). The website is also well-known for its charitable donations – through biannual so-called "Games Done Quick." In seven days alone in January 2017, during an edition of "Games Done Quick," gamers managed to raise over \$2.2 million in charitable donations, by live streaming themselves 'speedrunning' games (Gach 2017). The majority of viewers on this website fall within the 18-35 age bracket, hence most of them theoretically pertain to the Millennial category (Webb 2012).

YouTube is probably the most prevalent platform that facilitated the creation of new forms of social media jobs. For example, professionals of any kind or whoever can showcase a talent or ability (Johansson 2016) can

create their own YouTube channels. In turn, viewers subscribe to those channels, and revenue is generated through the ads shown in the respective channels' videos (Johansson 2016). PewDiePie, a 27-year-old comedian from Sweden and the highest-paid YouTube star, has raked in \$15 million in 2016 alone (Berg 2016). Make-up artists, hair stylists, or simple clothes or accessories shoppers can offer reviews about certain brands or products. In turn, companies pay to have their products reviewed or endorsed (YouTube 2017) by those with a large following and the appropriate audience (Johansson 2016). Thus, revenue can be generated through product review, placement or endorsement (Johansson 2016, YouTube 2017).

One important question of this market-based phenomenon refers to the causal relationship between Millennials' social media use and these new forms of social media jobs (e.g., vlogging). Did Millennials, driven by attention-seeking (DeWall *et al.* 2011), self-expression (Inglehart and Oyserman 2004), and a desire to feel unique and special (Lynn and Harris 1997, Brewer and Roccas 2001, Morf and Rhodewalt 2001, Lynn and Snyder 2002, Campbell *et al.* 2004a, Campbell *et al.* 2011), initiate such lucrative processes? Did they simply start by engaging with these platforms, describing their lives or products used, and then uncovered new ways of generating revenue? For example, as some YouTube stars themselves confessed, they started posting videos on YouTube way before they could draw revenue from it (Berg 2016). Or instead, did companies see an opportunity to market themselves at a more granular, specific level, and in ways other than the typical internet ads, giving rise to new forms of social media jobs?

Regardless of the genesis or causality of these processes, it is not unreasonable to assume that these interactions fulfill basic psychological needs of feeling unique, special, or different than others (Snyder and Fromkin 1980, Brewer and Roccas 2001, Lynn and Snyder 2002), and also fulfill attention-seeking needs (DeWall *et al.* 2011) for both providers and consumers alike. Providers of these services can discuss their lives, their preferences, their opinions, the products that they use, the brands that they like, their preferred destinations etc. Similarly, the consumers can directly interact with the providers and other consumers alike, in the 'Comments' sections, by expressing their opinions, by giving feedback, by seeking personalized advice, or by sharing their own experiences. Future research is necessary to uncover the prevalent psychological traits of the providers and consumers involved in these processes.

By simply having a device connected to the internet, one can engage in a slew of new forms of jobs online, rather than in the traditional non-remote types of jobs. Millennials may have initiated, spurred, responded to, or engaged in creative ways with a social media system that burgeoned at the height of unemployment in the context of the Great Recession, which coincided with the emergence of new forms of social media jobs.

### **MALADAPTIVE JOB OUTCOMES**

There are countless examples of 'entitled' Millennials, as depicted by the media, who took to social media to express their job dissatisfaction, oblivious to the fact that their friend lists contained their direct superiors or colleagues, or that their post settings were set on 'public' in the case of Facebook (Bean 2014). Anecdotal evidence in this respect abounds. Examples include taking a sick day and spending it on Facebook, or leaving work for a family emergency but then attending a party the same day (Bean 2014). Talia Jane, a 25-year-old writer, was fired from her job at Yelp after she wrote an open letter to the CEO detailing how the wage she earned there did not constitute a living wage (Smith 2016). The media coverage of her situation was positioned within an 'entitled' Millennial discourse, with Jane being described as yet another narcissistic and entitled Millennial (for a discussion, see Cammeron 2016).

These responses have generally been construed by the media as representative of Millennials' unreasonable expectations (Stein 2013). However, many alternative explanations could account for pronounced and vocal responses of Millennials in the context of an unfavorable economic and job climate. One possibility is that, simply being more accustomed to express themselves on social media platforms (Pew Research Center 2017), Millennials also express their job-related discontent on these platforms, just as they would express their job-related satisfaction. Recent transformations in the nature of work (the automation of work, the proliferation of alternative forms of work such as temporary, part-time, or non-collocated work arrangements, to downright high unemployment rates) would likely trigger similar negative responses in individuals of varying ages, including Baby

Boomers and Generation Xers. The difference lies in the fact that Boomers and Gen Xers are in different stages of their careers (please see the third explanation below).

A second potential explanation is that, with advances in technology and communication, the increased visibility and quantifiability of social media information has made it easier for social media activities to be scrutinized. Negative job-related reactions can be more easily tracked, monitored, and reported in the media, thus increasing the public opinion's salience of Millennials' job market experience and reaction to it (e.g., Tversky and Kahneman 1973). Thirty years ago, Baby Boomers could likely express their discontent with the same frequency or outrage as well, but to their family and friends, and in the privacy of their homes. It is impossible to empirically test how Boomers would have reacted to job-related discontent in the 1980s had they had access to social media platforms. Millennials are thus more salient in people's minds because there is no other comparison cohort e.g., one cannot even track people's expression of job-related (dis)satisfaction in prerecessionary times, since social media platforms were not widespread pre-2004.

A third explanation is that the unfavorable economic environment has exacerbated such negative responses. It is plausible to consider that the consequences of the Great Recession have been more acutely felt by Millennials, since the recession occurred, by and large, at the outset of this generation's careers. Last, a fourth explanation is that indeed Millennials have developed heightened expectations regarding their job experiences, due to entitlement beliefs, and respond in negative ways when their expectations are not met (McCullough *et al.* 2003, Twenge and Campbell 2003, Campbell *et al.* 2004a, Exline *et al.* 2004).

## CONCLUSIONS

The present paper provided a brief dialectical overview of the adaptive and maladaptive ways in which Millennials might engage with social media from a work-related perspective. Characteristics associated with Millennials, such as a need for uniqueness or specialness, and attention-seeking, may have contributed to the development of new forms of social media jobs. On the other hand, characteristics linked to Millennials, such as entitlement, could have contributed to negative job outcomes for this segment of the workforce.

In conclusion, the ways in which Millennials utilize social media platforms, and the psychological characteristics that have been linked to this population segment, provide a much more nuanced perspective than the one proposed by mainstream media. More research is necessary to disentangle these contemporaneous processes with contradictory outcomes. Further work could also focus on human resource interventions meant to appropriately identify and motivate entitled personalities, those who possess a high need for uniqueness/specialness, or the subclinical narcissistic personalities who also possess the demonstrated ability to engage in adaptive organizational behaviors.

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## FINTECH – ALREADY NEW FASHION IN FINANCE, BUT WHAT ABOUT THE FUTURE ?

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**Abstract:** *Bitcoin, blockchain, fintech – what are we talking about ? It is well known the truth that among the main disciplines of the business education, there are several about soft skills and others about hard skills. Finance were always among the later, because they are technical, they are not very easy, very accessible, being based on accounting and rules, principles, as well as on math models and algorithms, technical analysis and so.*

**Keywords:** *Bitcoin, Blockchain, Fintech, Finance*

**JEL Codes:** *E42, E58, O33*

### INTRODUCTION

Among my EMBA students for almost 25 years, those who have been performed clearly above average and part of them were the best so far, have had engineering background. Simple as that, again because of the technicality specs. So, it shouldn't be a surprise at all, the link between finance and technology for years, not just recently, as it could appear theoretically. On the other side, we have IT overall that boosted as we all know for the last 20-30 years, and I refer here to both IT sphere, hardware and software. I like this similarity between hard and soft approach in both IT field of business and business education disciplines!

The hardware in IT created in the recent history of business and life, exceptionally powerful search engines in the Internet era, and social media, and much more important, very high capacity servers and more recently cloud computing storage possibilities. Maybe even more other things – I'm not at all specialist in it – but I do need to keep pace with the new developments, as most of us, and even encourage the technological progress in my finance field. Anyway, if in the hardware probably it's easier to mention about the main progresses, in software, the new applications developed in virtually all parts of our lives, not just in business, rather than in science, in sport, in culture, etc... are infinite and they are still at the beginning stages.

So, the natural movement came easily in economics for years, but also specifically in finance and banking in the last period of couple of years.

### NEW DEVELOPMENTS

Economics has already reached technical expertise in business by various management applications designed to enrich business productivity and efficiency, and we all heard about CRM or ERP, famous business integrated systems as such. There were created in time specific optimizing modules for HR – payroll, for logistics, for sales active instant reporting, not speaking about production/manufacturing management or inventory management.

Finance, but mainly accounting were blessed by accounting software and data analysis and reporting, also for longer than 20-25 years by now. Then what's fintech ?

Not easy to define, but not so complicated too, finally fintech it's a fortunate combination between finance & banking and the new technology, technology mostly familiar to the new generations (Y and millennial), that generates new ways of banking and finance activities. It refers to remote working due to digitalization era, to use all kind of technical devices (cellular, tablets, laptops) and thus becoming much more dynamic, fully connected anytime, and more efficient, without too much human intervention anymore.

I was just writing down few years ago about the new generations and new technology<sup>1</sup>, where I was warning

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<sup>1</sup> Ovidiu Dimbean-Creta, The new generations and new technology – the driving forces for the future business models, Proceedings, Supplement of Quality Access to Success magazine, October 2013

about the changes and challenges that new generations that grew with tech, will come and generate new and smart applications everywhere. So, we're already there, it's coming... More recently, in 2016, I just wrote down about important changes in finance<sup>2</sup>, that are happening and I was referring to the virtual currencies and to the obsolete model of risk assessment in the CAPM model, in the context of inflationary growth of all kind of risks worldwide.

Virtual currencies are already a reality that nobody can ignore anymore, even though there are probably too many and too early, and probably they didn't improve too much with their status of money functions, as I did amend them before, rather than becoming much more present in the World and specifically as a mean of payment and of exchange on more and more types of products and services.

Anyway, further developments of virtual currencies may change the set-up of commercial and financial transactions and the overall financial markets, but it will not be that easy and will not happen overnight, as I said before.

### THE MAIN ACTORS OF CHANGING

Let's see what do we already have now: first of all, financial technology is mainly linked to financial services, services provided first by banks, but not just. In the broader finance world there are besides banking, insurance companies, pension funds, mutual funds, non-banking financial institutions making short-term and personal loans, and all of these are highly qualifying to fintech modeling. But the FinTech ecosystem has been developed fast through many startups that break the finance world technology domination, as shown in an interesting PwC study from April 2016<sup>3</sup>. They are sharing the new fintech ecosystem in 4 types of actors:

- **Big banks and financial institutions** such as Bank of America, Chase, Wells Fargo, Citi, the so called "incumbents";
- **Big tech companies** like Apple, Google, Facebook or Twitter, that are active in the financial services area, among other services and these ones are not the core;
- **Companies providing infrastructure or technology that facilitates financial transactions**, such as MasterCard, Visa, Fiserv, NASDAQ;
- **Disruptors, fast moving startups mainly**, focused on particular innovative technology or process like mobile payments, automated investing, peer-to-peer lending, insurance, retail banking.

All of these actors are not static, they all move in various directions, generally to each other, coming in the other's area of addressing their customers. Actually there is a general front and action from the tech companies, specialized infrastructure support ones and the disruptors to replace banking in services like lending, credit underwriting, digital cash, treasury functions, deposits, bill payments.

So, the PwC experts admit a developmental transfer from the initial phase of B2C, as they are calling it "FinTech 1.0", to a second phase of B2B, so called "FinTech 2.0".

What in response the banks are doing ? They need to defend and offend in the same time...Clearly they cannot stay as such anymore, they need to be more flexible and agile, to create their own innovative actions and/or cooperate with disruptors, with new tech drivers, in order to change their services faster and update to the new world that evolve in front of us.

Besides banking – as I already said earlier – the financial service industry is much larger and well developed in the developed countries and the technology it will help boosting furthermore this industry. There are so many perspectives and possibilities, that influence more and more MBA graduates to start-up their own businesses instead of being hired by even big and reputable giants.<sup>4</sup>

### FINTECH AND THE FINANCE FUNCTION

However, when thinking at fintech I also personally tend to think at the dramatically change of **the finance function**, a deep transformation of it. Is that so ? And I'm referring to the corporations, not just at financial services

<sup>2</sup> Ovidiu Dimbean-Creta, Challenges over Economics and Monetary Fundamentals ?, Proceedings, Supplement of Quality Access to Success magazine, October 2016

<sup>3</sup> PwC FinTech Q & A, April 2016, from PwC Financial Services Practice

<sup>4</sup> Fintech lures MBAs away from banking and consulting, The Financial Times Limited 2017, 24 April 2017, by Jonathan Moules

performed by financial specialized companies.

Hard to say prominently, because if we go inside most of the companies what do we find ? Not too much change, behind some specific and already used to find out software for accounting, finance analysis and reporting, sometimes integrated solutions within a successful ERP, and on-line banking activities mainly for current payments, offered by many banks. Do we expect a similar level of automation with banking and other main actors that evolved sharply in various points of life, but especially in business ? Yes !

So, most probably the **technologizing** of the finance function in companies requires first or filling partially the gap between IT function and the rest of the management team. I did observe in many local companies a misunderstanding gap in between, coming from both sides:

a) many IT managers, although not at all of them for sure, are not yet familiar with the basic management concepts, and thus they cannot pass the common understanding language test in front of the others. They cannot make them understandable toward their management peers, even though sometimes they could bring interesting ideas on the table. Because of the same reasoning more often they don't even get access to the relevant management;

b) most of the managers in many companies are not IT skilled and even they're running out of those techs from IT, refusing to listen. And even though listening, they don't understand too much, because of lack of basic knowledge about.

In order to cope with this fact there is a need for making effort both ways, enabling IT people to come together at the same table and speak the same business language with the rest of the management team. This way companies, even those "incumbent" in various businesses can come up with new ideas, new optimizations in everybody's benefits. And it's not just a matter of electronic payments or sales reporting and instant cash management and other financial analysis. It's a matter of faster and higher quality manufacturing, less expensive, faster and higher quality delivery, cheaper sales and more convenience for broader clients.

Staying at fintech, let's recognize that finance function was always under advantage versus other functions, simply because in many cases, in many companies finance subordinates IT, there are many examples where there are executives with the position of Finance and IT Director. These guys already had the possibility to **technologize** their function much more than others, and this is the reason why this Finance function is usually in charge with the implementation of the ERP systems, even though we call it project management.

So, if we dig into more details, analyzing the finance function, we learned about the two clear directions of working, **treasury and controlling** (financial reporting and accounting respectively). In the treasury we might have cash and credit management, capital expenditures and financial planning and budgeting, whereas in controlling we can find chief accountant, taxes, cost accounting, data processing and financial reporting.

The progress stages are as following: cash and credit management and credit control are pretty well updated electronically, first due to banking software introduced many years ago, and secondly, also companies created in house specialized soft applications for this job, or they simply bought one from specialized providers, if not having an ERP solution yet.

Financial reporting, planning and budgeting developed itself as a versatile tool of the business plan exercise over all, tool started usually from accounting software, and then improved step by step toward more complex managerial instrument.

There are various applications for cost accounting and cost control, tax management and data processing, thus enabling to finance managers and finance directors, CFOs to get instant information about more and more processes and assets they are taking care of, but this is already history for some advanced company's top management, especially multinational companies, private and listed companies and so forth.

But finally what's the role of Fintech in the financial management of companies ? What can be further done ? Introduce Block chain as a new technological algorithm to speed up the decision making process, based on finance and accounting relevant information ? Absolutely yes! And much more...block chain is a distributed ledger, a chain of blocks, it is "a database of assets or transactions that is shared with a network so that all parties have their own identical copy of the ledger. When a change is made to the ledger, every copy of the ledger across the

network is updated almost simultaneously.”<sup>5</sup>

“In the case of blockchain, each transaction, or database entry, is recorded as a ‘block’ of data, and each new block has an encrypted copy of the previous block within it, so connecting the two together. Blocks are then linked together using cryptographic signatures, creating a ‘chain’ of activity or transactions that are time stamped, distributed according to their nature and tamper-proof.

In short, blockchain creates an incorruptible ledger of blocks of information, and the information it stores can be potentially anything, from the ownership of works of art, to copyright information and financial transactions. Distributed ledgers can be public or private. Bitcoin was based on a public model, so anyone could own a copy of the ledger and update it (Rae 2016)” \*)

As a source of future innovation, blockchain has four main strengths:

1. It is an open book – free to access by anyone who agreed to join the database, and can see who has done what;
2. It is distributed – everyone get one copy of millions, generated by the system and can see updates of all transactions processed without the approval of a central authority;
3. It is secure – updating blockchain is based on complex algorithm and changes made to the ledger are individually immutable;
4. It is cheap – being distributed over a network and without control by a single authority.

This complex algorithm can become the digital infrastructure for everything, and as I said at the beginning of this paper, not just for various financial services, but even for transforming the finance function in the companies.

But in order to do that, the new tech algorithms should be guided by accounting and finance professionals on one side, and these people need to engage into digitization trend and promote it sharply, on the other side.

## CONCLUSIONS

Fintech became already a well know term in the business world, but especially in **financial & banking services**, where we’ve seen a lot of new tech applications for e-payments, e-deposits, personal & consumer loans, insurance, various trade transactions encouraged by e-commerce and others.

The future is in front of us, and will show further developments after the invention of block chain technology and the occurrence of the crypto currencies, that can dramatically change in the near future the whole money market and financial market transactions, rules, procedures, etc.

But fintech didn’t change too much yet the **finance function in corporations**, even though this essential managerial direction of any serious company already took the IT benefits for years, and thus used various electronic applications that eased this job. Or on the contrary, because of it.

Anyway, in order to really be able to speak about fintech in the corporations, I see the need of introducing block chain technology at work, so as learning accounting and reporting, data & financial analysis, treasury and asset management, investments, so that reducing the financial and accounting staff, and boosting working efficiency.

In other words, if the banking and financial services is already more advanced with introducing new tech for increasing productivity and reducing operational costs, faster delivery of modern financial products and services toward their external clients, the same way the finance function in the companies can become more efficient and faster toward their internal clients, to be used in the decision making process.

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## ONLINE PLATFORMS: EMERGING TRENDS IN THE OPEN INNOVATION FOR SMES

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**Abstract:** *Small and medium-sized enterprises (SMEs) face challenges consisting in limited financial and human resources dedicated to research and development processes, while being under great pressures to increase market competitiveness. Open innovation may support the efforts deployed by SMEs to enhance their creativity, the generation of new ideas and the development of new solutions to meet the increased expectations of customers. The goal of this paper is to explore the emerging trends in the field of online platforms that provide SMEs with the opportunity to access open innovation. The utility of this exploratory approach is based on the fact that SMEs represent an important share of the number of enterprises in the Member States of the European Union. At the same time, even if numerous open innovation platforms exist worldwide, few are actually online platforms designed for SMEs as solution seekers. The paper focuses on the online platforms that were set up in the European Union for the inbound open innovation processes of the SMEs. The main contribution of the paper to the studied field consists in tracking the present signs that may indicate potential future directions of evolution, as well as in underlining the specific implications for researchers and practitioners.*

**Keywords:** *small and medium-sized enterprises, open innovation, online platforms, competitiveness, solution seekers, inbound processes*

**JEL Codes:** *M30, M31, O30, O31*

### INTRODUCTION

The small and medium-sized enterprises (SMEs) are the structural backbone of the economy. However, many of them are not capable of ensuring sustainable development and enter insolvency and bankruptcy. Most of them lack internal abilities and resources to innovate and become competitive on the challenging national, regional and international markets. Thus, open innovation may be a solution to find creative ideas with the external support of the crowds of customers or to identify solutions with the support of few outstanding experts in their domains. Lately, in the field of open innovation, a new category of market players emerged, respectively the innovation "intermediaries". Some of them fulfill this function based on online innovation platforms that are a bridge between the solution seekers and the solution providers.

The goal of this paper is to explore the emerging trends in the field of online platforms that provide SMEs with the opportunity to access open innovation. The research is exploratory. The type of research was selected due to the relative absence of studies on the topic of emerging trends. The data collection method was the analysis of information sources existing on the web. The contribution of this paper to the field of study has a practical nature and consists in tracking the present signs that may indicate potential future directions of evolution of the online open innovation platforms, as well as in underlining specific implications for researchers and practitioners.

### 1. SMES IN THE EUROPEAN UNION

The SMEs capture to an ever-greater extent, the attention of the public authorities, practitioners and researchers. This is also the case of the European Union (EU) and of the Member States.

The Eurostat classifies the micro, small and medium-sized enterprises according to the following major criteria: number of persons employed, turnover and balance sheet total. The reference values for these indicators are presented in the table below:

**Table 1 – Criteria for the definition of the micro, small and medium-sized enterprises**

Enterprise category	Number of employees (persons)	Turnover (million EUR)	Balance sheet total (million EUR)
Micro	< 10	≤ 2	≤ 2
Small	< 50	≤ 10	≤ 10
Medium	< 250	≤ 50	≤ 43

Source: Eurostat, 2015.

In 2012, the total number of enterprises existing in the European Union reached 22,3 million. SMEs represented the quasi-totality (99.8%).

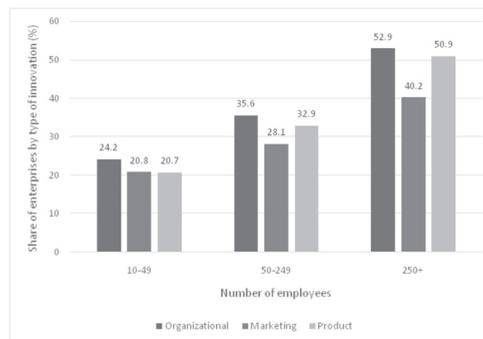
**Table 2 – Share held by SMEs in the number of enterprises, the number of persons employed and the gross value added in the EU 28\*, in 2012**

Indicator	Measuring unit	Value of the indicator
Number of enterprises	Enterprises	22,346,729
- out of which SMEs	%	99.8
Full time employees (FTE)	Persons	133,767,348
- out of which SMEs	%	67.0
Gross value added (GVA)	Million EUR	6,184,825
- out of which SMEs	%	57.5

Source: Eurostat, 2016.

Note: \* The European Union with 28 Member States.

The SMEs are an important force of the economy. Their contribution to the gross value added was 57.5% in the EU, in 2012. However, the SMEs rank lower than the large enterprises in terms of productivity expressed as gross value added per full time employee. This situation may be generated, among other factors, by the lower level of innovativeness. The figure 1 displays the disparities between the small, medium and large enterprises, as regards the main types of innovation. Data about process innovation are not provided by Eurostat, being confidential.



*Figure 1 – Share of innovative enterprises per type of innovation (organizational, marketing and product innovation) by enterprise size class, in the EU 28, in 2014*

Source: Based on Eurostat, 2017

The ranking of enterprises by size is relatively similar to the ranking by innovation. Small enterprises lag behind the medium and large enterprises. Only between 20.7% and 24.2% of the small enterprises are innovative from the perspective of organizational, marketing and product innovation. In the case of medium enterprises, the shares range between 28.1% and 35.6%, while in the case of large enterprises shares vary between 40.2% and 52.9%.

The data presented in figure 1 trigger the alarm and raise awareness of the critical situation of the SMEs and especially of the small enterprises in promoting innovation. The short and long-term goals of the SMEs should focus on enhancing their competitiveness on national and global scale. SMEs need to drastically change their strategic approach to innovation and to implement more actively the different types of innovation related to organization, marketing, products and processes. These goals must become a priority, even if SMEs face various adverse factors such as limited financial and human resources dedicated to innovation, as well as the volatile, uncertain, complex and ambiguous environment.

## 2. OPEN INNOVATION

For the first time, the concept of open innovation was used by Chesbrough, in relation to technology, in his book published at Harvard Business Press in 2003. The new paradigm was defined in the book co-authored by Chesbrough with Vanhaverbeke and West in 2006. According to their definition, open innovation implies inflows of knowledge to intensify innovation within own organization and outflows of knowledge to enhance innovation for other market players.

Large companies such as General Electric, IBM, Lego, Philips, Procter & Gamble and Samsung have already turned into value the benefits of open innovation. Initially, research on open innovation topics focused on the practice of large companies, as underlined by van de Vrande et al. (2009), as well as by Bianchi et al. (2010). Gradually, during the period 2010-2016, researchers studied the open innovation from the perspective of SMEs (Kim and Park, 2010; Lee, et al., 2010; Grimaldi, Suh and Kim, 2012; Quinto and Rippa, P., 2013; Oakey, 2013; van Hemert, Nijkamp and Masurel, 2013; Colombo, Piva and Rossi-Lamastra, 2014; Brunswicker and Vanhaverbeke, 2015; Verbano, Crema and Venturini, 2015; Bigliardi and Galati, 2016).

According to the literature review made by Hossain and Kauranen (2016), on the topic of open innovation in SMEs, most of the research studies were done by European scholars. The same review underlined that researchers from Korea and China also contributed, while few scholars from North America showed interest in the topic.

The open innovation may provide substantial benefits to SMEs. Firstly, SMEs can obtain solutions to their innovation problems and new creative ideas without internal innovation skills and organizational departments. Secondly, SMEs may accelerate the innovation process by means of an open approach, due to the time savings achieved when involving external sources of knowledge and ideas. Thirdly, another benefit is the increased efficiency of the investment in innovation, based on a lower amount of funds invested, on a discontinuous innovation effort concentrated within the time interval when the specific need appears and on higher quality solutions and more creative ideas.

The research on open innovation in SMEs was rather limited until present. Consequently, the domain remains open to research approaches of exploratory, descriptive and causal type.

## 3. METHODOLOGICAL APPROACH

The goal of this paper consists in exploring the emerging trends in the field of online platforms that provide SMEs with the opportunity to access open innovation. The research had an exploratory nature. At the same time, the research did not start from a highly structured framework. The study was not based on a list of predefined and rigid list of objectives and data to be gathered. Such an unstructured approach was considered necessary in order to allow the discovery of new trends related to the online open innovation platforms for SMEs.

The information that allowed the identification of the present trends was collected from sources existing on the web. The search on the Internet was based on a range of key terms related to open innovation, SMEs, online platforms, European projects in the field etc. The data collection process included the following subsequent stages:

- **Stage 1: Preparing a preliminary list of online open innovation platforms for SMEs.** In the initial stage, the research aimed to create a list of the platforms dedicated to open innovation for SMEs in the European Union. Only external online platforms were considered, not the internal platforms that have the goal to organize and intensify internal innovation within companies.

- **Stage 2: Filtering the preliminary list.** The narrowing down of the preliminary list was critical, due to at least two main reasons. Firstly, the analysis of the information obtained during the first stage revealed that some existing initiatives that were declared “open innovation platforms for SMEs” did not actually include an online platform. In fact, they were communities of organizations that were set-up to facilitate the communication and the exchange of innovative ideas between members, without relying on an online open innovation platform. Secondly, another reason for the information filtering was the fact that the terms “for SMEs” were used in an ambiguous way. “For SMEs” referred not only to the online open innovation platforms that are dedicated to the SMEs that aim to accelerate the internal innovation process through inbound flows from external sources of knowledge, but also to the platforms that invite SMEs to be sources of knowledge for large companies. This situation led to the filtering of the preliminary list, in order to keep only the relevant cases and to exclude the other examples from the preliminary list.
- **Stage 3: Exploration of the online open innovation platforms from the filtered list.** This stage started with the output of the second stage, which consisted in the list of online open innovation platforms for the inbound knowledge flows of the SMEs interested in finding innovative ideas to increase their own competitiveness. The list comprised only such online platforms that were developed in the European Union. The study continued with the investigation of each identified online platform.

The analysis of the data gathered led to the identification of several trends that emerged lately in the field of online open innovation platforms for SMEs in the European Union.

#### 4. EMERGING TRENDS

The present section presents the emerging trends in the field of online platforms that provide SMEs with the opportunity to access open innovation. They resulted from the exploratory research carried out on the web.

The emerging trends that were identified in relation to the online open innovation platforms for SMEs are the following:

##### a) Development of several types of online open innovation platforms

At present, there are several major types of platforms that facilitate the open innovation based on sources of ideas and knowledge which are external to companies (see table 3). In practice, there are also platforms that have a “mixed profile”. They cannot be included in one of the major types because they share the features of two or more types.

The major types of platforms are described in the following table:

**Table 3 – Major types of online open innovation platforms**

Types of platforms	External sources of innovation	Role of the platforms	Implementation approach
Idea platform based on crowdsourcing	Crowd of individuals (i.e. consumers, freelancers etc.)	To attract and involve the “crowd” in the generation of new and creative ideas	The idea seeker organizes a contest on the online open innovation platform, posts a challenge and motivates potential participants by means of a specific prize
Solution search platform based on an online marketplace (database of registered experts)	Experts that registered themselves in the database of the platform	To facilitate the search for specialized knowledge	The solution seeker that applies to such a platform formulates a challenge and the platform communicate it to those experts from the database that best match in terms of knowledge and skills

Solution search platform based on the best relevant expertise	Renowned experts that are rather few and highly specialized in their field of research	To facilitate the identification of the best qualified experts that are able to generate a solution for the specific problem of the seeker	Use of data mining techniques in databases which comprise articles and scientific papers published by recognized experts in the specific field of interest for the solution seeker
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This trend consisting in the development of major types of online platforms is visible in relation not only to SMEs, but also to large companies that are involved in open innovation. However, the number of online open innovation platforms dedicated to SMEs is rather few.

**b) Setting-up of new online open innovation platforms for SMEs, by consortia with the financial support of the EU**

During the present decade, several projects based on EU funding were developed to stimulate the open innovation among SMEs. Examples of such projects are the following:

- **OpenAlps.** This project was accomplished within the framework of the EU's Alpine Space Programme. The interregional cooperation area targeted by this programme includes Austria, Liechtenstein, Slovenia and Switzerland, as well as parts of Germany, Italy and France. The goal of the Open Alps project was to provide the SMEs with the necessary support for implementing open innovation. The three-year project started in July 2011, with a total budget of 2.9 million Euro (OpenAlps, 2012a) from the funding ensured by the European Regional Development Fund and the participating countries. One of the work-packages of the project consisted in the development of a Web-based multilingual platform for open innovation. This platform is of the online marketplace type. The project partners were: the Chamber of Industry and Commerce Black Forest - Baar – Heuberg – the lead partner (Germany); Department of Management and Production Engineering of the Politecnico di Torino (Italy); CSP - research body in the field of Information and Communications Technology (Italy); Fondazione Lombardia per l'Ambiente (Italy); Verona Innovazione – Special Agency of the Chamber of Commerce of Verona (Italy); MFG Baden-Württemberg - Public Innovation Agency for ICT and Media (Germany); ARDI Rhône-Alpes (France); MRA Development Agency (Slovenia); Innovation & Technology Transfer Salzburg (Austria); Association ManuFuture (Switzerland) (OpenAlps, 2012b).
- **OPENiSME.** The goal of the project is to improve the competitiveness of the SMEs by connecting them with researchers from public and private laboratories. The three-year project benefits from the co-funding of the European Union within the Competitiveness and Innovation Framework Programme 2007-2013. The total budget of the project is 3.8 million Euro, out of which 1.8 million Euro from the EU (OPENiSME, 2015). The project partners originate in seven countries and they are the following: University College London – the project coordinator (UK); Laval Mayenne Technopole (France); Idexlab sas (France); Institut Josef Stefan (Slovenia); t<sup>2</sup>i – trasferimento tecnologico e innovazione s.c.a r.l. (Italy); Virce – Kompetenzzentrum Virtuellerrealitat und Kooperatives Engineering w.V. (Germany); Vision 2020 Network (UK); Academy of Entrepreneurship Astikietaira (Greece) and TAGES (Turkey) (OPENiSME, 2017a). The project activities included the development of a platform able to connect SMEs with experts/researchers. The platform allows the identification and ranking of experts based on their “web footprints”. Through this platform, the SMEs that search for an innovative solution may access databases with more than 100 million published papers, patent databases and social media (OPENiSME, 2017b). The platform is of the solution search type based on best relevant expertise. This platform stands out from the range of open innovation projects through the use of big data and data mining techniques.
- **NIR-VANA.** The three-year project started in 2016. It is based on the funding from the European Union's Horizon 2020 research and innovation programme. The project includes an online collaboration platform and

specific ICT tools (Nir-vana, 2017a). The consortium is made of the following organizations: Jena University (Germany); Blue Room Innovation (Spain); Fraunhofer Moez (Germany); Impulse.Brussels (Belgium); Swerea IVF (Sweden); Veneto Innovazione spa (Italy); Istanbul Chemicals and Chemical Products Exporter's Association (Turkey); Innova Institute (Spain) (Nir-vana, 2017b). This project includes an open innovation platform that entered the pilot phase in 2017 (Nir-vana, 2017c). However, on the website of the project, the consortium refers to a "software platform" and does not provide enough information about the functionalities of this platform. The type of platform is not clearly stated.

These projects reflect the new trend consisting in the preoccupation of public and private organizations to enhance the connectivity between SMEs and the potential solution providers by means of open innovation platforms. Nevertheless, the data about the platforms and their functionalities are rather scarce. One project differs in a positive way from all the others. This is OPENiSME, that gives free access to detailed videos describing the technical aspects and the functioning of the platform.

**c) Forming of partnerships by associations of SMEs and companies with the aim to create online open innovation platforms**

Such an example is the platform created by Landesverband der Handwerker (LVH) and Hyve. LVH is the association of the South-Tyrolean Craftsmen, the biggest [...] trade association in South-Tyrol. Hyve is a recognized leading innovation company from Germany.

Hyve supported LVH in designing and implementing the platform *Open Innovation South Tyrol*. This is a multi-contest platform dedicated to the SMEs from the South Tyrol region.

The exploratory research supporting this paper showed that this example resembles to the type of idea platform based on crowdsourcing. However, there are at least two differentiating features in comparison to the common crowdsourcing platforms. Firstly, the "crowd" is represented by the other SMEs that are registered on the *Open Innovation South Tyrol*. Secondly, the mission of the platform expands beyond the generation of ideas, to concepts, prototypes, designs and marketing strategies. Thus, the platform extends into the generation of solutions for SMEs.

**d) Online open innovation platforms that were formerly dedicated to large companies became available to SMEs**

An example is the strategic partnership between Hypios CrowdInnovation and WikiPME. This partnership was established in October 2016 (Hypios CrowdInnovation, 2016a). Both organizations originate in France.

Hypios was set up in 2008, as the first problem solving innovation platform for advanced technologies in Europe. In 2015, the name changed into Hypios CrowdInnovation (Hypios CrowdInnovation, 2016b). Hy.OpenInnovation is the online open innovation platform developed by this company. The platform allows solution seekers to identify and select the best specialists from a network of 950,000 experts in 150 countries (Hypios CrowdInnovation, 2017). This case resembles to the type of platform that ensures the solution search based on the best relevant expertise. The platform is able to fulfill its mission to promote open innovation in Europe due to the Hy.Proximity software for the semantic analysis of each problem, as well as due to an open innovation algorithm / competency discovery technology (Hypios CrowdInnovation, 2017). The online platform was firstly available especially to large companies interested in innovative solutions.

WikiPME is an online platform dedicated to the SMEs from France. It was created by a small group of entrepreneurs in 2014, as the first solidarity social network for SMEs, and reached a community of more than 50,000 SMEs. Until present, the platform attracted 168,348 subscribers to the newsletter. Overall, it facilitated 81,500 commercial exchanges (WikiPME, 2017). The platform includes several distinct areas: *La place de marché* - the geo-targeted marketplace that provides transaction opportunities; *Wikithèque* - the area that provides articles from partners and site specialists; *Forum* - the area of the site where members may raise questions and give answers, area that is accessible to both members and users; the *Wikiblog* - the blog associated to the site, by means of which entrepreneurs can communicate and be heard.

The strategic partnership between Hypios CrowdInnovation and WikiPME may accelerate the open innovation in the SMEs from France.

**e) Assessment of the need for open innovation platforms for SMEs, to be created and operated by**

**the national public authorities**

In 2016, the results of such a study were published in Germany. The need for an open innovation platform was evaluated from a perspective which is broader than that of SMEs, and included the viewpoints of the independent innovators, universities and research organizations (Technopolis Group, 2016).

The results of this study revealed no compelling demand for the setting up and operation of an open innovation platform by the State at the Federal level, in Germany. However, only the technology transfer offices of universities and the organizations close to the independent inventors would support the idea of an open innovation platform financed by the State.

The findings of the study show that the image of open innovation platforms for SMEs is associated with the private initiative rather than with the support of the public authorities.

**f) Creation of companies with the mission to facilitate the open innovation through online platforms and communities**

Such an example is Desall set-up in Italy, in 2012, with the tagline “A new way of thinking the product”. Desall defines itself as “an open innovation and crowdsourcing platform that, through design contests, connects companies and private clients with a worldwide community of creative talents” (Desall, 2017a). The community includes 13,000 registered creatives from various countries (OpenAlps, 2013).

The online platform of Desall targets companies, including SMEs, as well as individuals interested in design-on-demand services. These clients look for innovative ideas and solutions in the industrial, craft and interior design domains, related to product conception and development.

From the client (idea/solution seeker) perspective, the open innovation process intermediated by Desall.com consists in the following stages: signing up, launching the contest, monitoring the proposals, getting community feedback and selecting the idea/solution (Desall, 2017b). An interesting feature of this open innovation process is the fact that the members of the community of creatives have not only the opportunity to submit proposals consisting in ideas and solutions, but also to give their feedback relative to each of the proposals submitted in response to a specific contest launched by a client of the platform. The votes of the members are considered a proxy for the market feedback.

The online platform allows clients to autonomously launch single-phase contests that refer to one of the following activities of the new product development process: new-idea, product design, naming, packaging and craft design. Desall also provides clients with the alternative to launch sequential phases contests (respectively including two or more phases within up to four industrial design packages), but only in the offline mode, being assisted by the staff of Desall.com.

The contests may have a narrow or a broad target. The former alternative consists in inviting to the contest the 50 best creatives of the Desall community. This approach will lead to 10-15 submitted projects. The latter option is addressed globally, to the entire community. The result of this alternative is a number of projects between 50 and 300 (Desall, 2017c).

The winners of the contests are entitled to one of the following types of rewards granted by the client who launched the contest: a prespecified amount, royalties or a combination of these (Desall, 2017d). The amount of the award is decided by the client, not by Desall.

The exploratory research shows that the online open innovation platform provided by Desall combines the characteristics of idea crowdsourcing platforms and solution search platforms based on a marketplace (database of registered experts). Desall is a relevant example of the role that entrepreneurs may play in facilitating open innovation by means of online platforms. However, Desall.com is open to all types of companies, not only to SMEs.

**g) Extension of the value proposition provided to the SMEs by the online platforms**

The online open innovation platforms are part of a “multi-service package” provided to SMEs, in order to enhance the innovation abilities. Examples are provided by all the project which benefitted from EU funding.

For instance, the OpenAlps project provided to SMEs and to the R&D centers the following services (OpenAlps, 2012b; OpenAlps, 2012c) besides the use of the dedicated platform:

- support for research and networking through the local open innovation support centers;

- support to find elaborate solutions for the innovation problems of the SMEs and R&D centers, through six local innovation labs each being specialized in a specific topic (cross-industry innovation; wood, energy and environmental efficiency of heating equipment; e-health care; wood & furniture, marble, fashion industry; ICT, technology transfer in the ICT sector; creative industries);
- training programs in the field of open innovation management, targeting the cluster managers, as well as the management of the SMEs and business development agencies.

The OPENiSME project provides on its website an innovation self-check tool (OPENiSME, 2017c). This tool allows companies to evaluate their own innovation potential. The tool has a double effect. On one side, it helps SMEs to identify the area for further improvement in terms of innovation. On the other side, the tool supports the marketing and sales efforts of the consortium that developed and implemented the project.

The platform *Open Innovation South Tyrol* has an integrated marketplace for the exchange of services and products. In addition, LVH and Hyve provide offline support consisting in workshops, lab-sessions, conferences, innovation tours, and training programs (Kuenz, 2017). Thus, *Open Innovation South Tyrol* is a good example of platform that provides additional value to the SMEs, consisting in support during the entire development cycle, from idea to product launch.

The association of the open innovation platform with various additional services for SMEs may have a positive impact on the effective adoption of the platforms by SMEs and on the generation of creative ideas and solutions.

#### **h) Moderate adoption of the online open innovation platforms by SMEs**

The public data available on the OpenAlps project that was funded by the EU, show a moderate adoption. In September 2014, after a period of three years, the project OpenAlps declared the following results: 162 activated accounts, out of which 99 innovation seekers and 63 innovation solvers (Open Alps, 2014).

These numbers show an emerging interest of the SMEs in the open innovation. Compared to the number of SMEs existing in the Alpine Space, the potential is far from being reached. However, besides the quantitative dimensions of the results in terms of activated accounts, the qualitative aspects matter as well, respectively the utility of the online open innovation platform for the participants.

In the case of the platform *Open Innovation South Tyrol*, the public data indicate that the 10 (ten) contests launched by LVH attracted 850,000 visitors. A number of 1,500 active members submitted more than 1,000 ideas, 2,000 comments and more than 7,000 evaluations (Kuenz, 2017). This platform is more active than others that are dedicated to SMEs.

The practice related to open innovation platforms shows that rapid adoption by a large number of SMEs is not warranted.

## **5. CONCLUSIONS AND IMPLICATIONS**

The emerging trends were identified based on the exploratory research achieved on the Web. The study had several distinct features:

- Clearly-set scope.** Firstly, the research was centered on the SMEs. Secondly, it referred to the emerging trends only, not to the overall open innovation phenomenon among the SMEs. Thirdly, the perspective focused on online open innovation platforms, not on all initiatives presented as “open innovation platforms”. Ultimately, the study referred to the platforms that are external to SMEs, not to the intranet platforms aiming to intensify internal innovation within companies.
- Qualitative, not quantitative aspects.** The research did not aim to quantify the magnitude and intensity of the open innovation activities accomplished by SMEs through the online platforms. Qualitative aspects were considered only.
- Pre-defined territorial coverage.** The study focused on the online platforms developed in the European Union. Nevertheless, relatively similar online platforms exist in other parts of the world, such as South Korea, China, Canada and the United States.
- Inbound, not outbound flows.** The aim of the study was clearly defined in relation to the inbound flows from external sources of knowledge. The outbound flows from SMEs to large companies did not represent the object of this study.

The exploratory study identified the following emerging trends relative to the online open innovation platforms: (i) development of several types of online open innovation platforms; (ii) setting-up of new online open innovation platforms for SMEs, by consortia with the financial support of the EU; (iii) forming of partnerships by associations of SMEs and companies with the aim to create online open innovation platforms; (iv) online open innovation platforms that were formerly dedicated to large companies became available to SMEs; (v) assessment of the need for open innovation platforms for SMEs, to be created and operated by the national public authorities; (vi) creation of companies with the mission to facilitate the open innovation through online platforms and communities; (vii) extension of the value proposition provided to the SMEs by the online platforms; (viii) variable rates of adoption of the online open innovation platforms by SMEs.

The results of the study have direct implications for the research on the online open innovation platforms. Three categories of informational input are necessary. Firstly, the organizations (companies, associations etc.) that set up and operate online open innovation platforms would benefit from data that allow them to enhance the use of the existing platforms and to increase their effectiveness in generating creative ideas and solutions to the situations and problems faced by SMEs. Consequently, potential directions for further research in Europe could be the following:

- a) measurement of the awareness and determination of the image of online open innovation platforms among the SMEs from Europe;
- b) assessment of the degree of satisfaction of the SMEs relative to the online open innovation platform(s) they actually used;
- c) profiling the SMEs in relation to their behavior of using online open innovation platforms;
- d) identification of the type of online open innovation platform that each major profile of SMEs would prefer to use;
- e) study of the additional platform functionalities expected by the SMEs;
- f) investigation of the factors that influence the effectiveness of the online open innovation platforms for SMEs from the viewpoint of the creators and operators of those platforms.

Secondly, the SMEs that are potential users of the online open innovation platforms could benefit from data that facilitate their choice and the use of such platforms. From this perspective, potential research directions could be:

- a) mapping the types of existing online open innovation platforms based on criteria such as functionalities provided and specialized fields of innovation;
- b) comparative analysis of the functionalities provided by the existing online open innovation platforms;
- c) ranking of the platforms according to their results;
- d) exploratory study of illustrative cases of SMEs that applied to such platforms;
- e) investigation of the factors that influence the effectiveness and efficiency of the online open innovation platforms from the viewpoint of the SMEs.

Ultimately, the experts and researchers that are involved in the innovation process on commercial bases would benefit from information that enable them to provide better ideas/solutions to SMEs. Potential directions for research could be:

- a) identification of the specific types of criteria used by SMEs for the selection of the alternative ideas and solutions provided by the online open innovation platforms;
- b) exploratory and descriptive investigation of the challenges faced by SMEs to increase their competitiveness;
- c) study of the types of challenges/contests posted by SMEs on the online open innovation platforms.

The results of the exploratory research have implications for practitioners also. Entrepreneurs and SMEs could consider the following recommendations:

- a) to include open innovation as integral part of their strategy for sustainable development;
- b) to become active members of communities that set up partnerships with online open innovation platforms dedicated to SMEs or addressed to other types of companies;
- c) to keep abreast with the most recent information about platforms and their functionalities;
- d) to progressively develop internal skills to use online open innovation platforms in order to increase their

competitiveness.

Online open innovation platforms for SMEs are in a preliminary stage of evolution relative to the adoption by the SMEs. The emerging trends that were identified reveal an ascending interest in these platforms. Several questions still remain to be answered in the near future. Will the use of these platforms become a common practice of the SMEs? How will stakeholders collaborate to transform this phenomenon into a tool for the increased competitiveness of the SMEs?

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## FROM INNOVATIVE PERCEPTION MAPPING TO BRAND ARCHETYPE PORTRAIT (BAPOR) AND BRAND ARCHETYPE POWER (BAPOW)

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**Abstract:** *If some person thinks that he or she is relevant, the person gets his/her portrait painted. Sometimes friends, colleagues, relatives, followers, and peers order the portrait of their distinguished partner, leader, founder, or ancestor. Painters sometimes visit the most interesting persons to paint their portrait. This happens even in the period of well-developed photography. Why cannot brands use this method? They surely can. To establish the portraits of brands we need meaningful symbols. These symbols can be archetypes of Jung. As we know from Jung, archetypes are defined as “forms or images of a collective nature which occur practically all over the earth as constituents of myths and at the same time as individual products of unconscious origin” (Jung, 1980). The unconscious was at the center of Jung’s interests. The unconscious has big influence in decision making too. Archetypes make easy Brand Knowledge – “This brand knowledge affects how consumers respond to products, prices, communications, channels and other marketing activity – increasing or decreasing brand value in the process” (Keller, 2003). To brand archetype portrait idea, we went through marketing research done at Kennesaw State University, Coles College of Business. Purpose of the study was to find how fast-food brands are positioned in the mind of students. Students guess and position different attributes of fast-food brands through the Piloting Brand Perception (PBPS) Scenario developed specifically for this marketing study. We believe that implementing Brand Archetype Portrait as a new approach of marketing will be a necessary stage during branding and rebranding, in the process of brand building and strategic brand development.*

**Keywords:** *archetypes of Jung, Branding, Strategic Marketing, Strategic Brand Management, Archetype development, Brand personality*

**JEL Codes:** M31

### INTRODUCTION

The aim of this article is to establish new tools for Strategic Brand Management. We decided to calculate Brand Archetype Power “BAPOW” and establish Brand Archetype Portrait “BAPOR”. We know that “all that happens is a symbol, and as it represents itself perfectly, it points to all the rest.” (Goethe, 1818). As we know from Jung, Archetypes are defined as “forms or images of a collective nature which occur practically all over the earth as constituents of myths and at the same time as individual products of unconscious origin.” (Jung, 1980).

The Brand Archetype Portrait (BAPOR) of a product/service/brand is a set of associations of customers towards them in the form of Archetype Symbols of Carl Gustav Jung, found either in conscious or unconscious of research sample. The Brand Archetype Power (BAPOW) can be the sum of the scores of winning/desired brand archetypes on the basis of econometric or simple calculation.

But to establish either Brand Archetype Power or Brand Archetype Portrait we need Perception Mapping Accelerators (PMA) and desired perception attributes (DPA), turned into archetype attributes of Brand (AAB). The logical flow of this route can be the following.

By the Piloting Brand Perception (PBPRS) Research Scenario we used experimental research design to understand final customers through key researchers: either centennial or youngest millennial students. Therefore, we did not avoid some little subjectivity of our business school students. We even encouraged them to bring more of their ideas and analysis on the stake of marketing study, because subjective ideas constitute more and more Perception Mapping Accelerators (PMA-s).

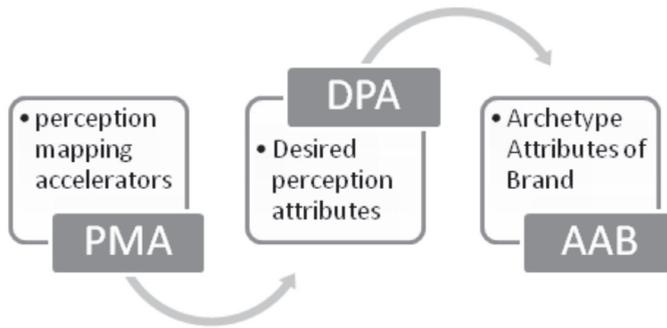


Figure 1: PMA – DPA – AAB (Source: author)

### HOW TO FIND PERCEPTION MAPPING ACCELERATORS (PMA)?

Some rules of our research - To understand human perception and find Perception Mapping Accelerators (PMA), you should go to the customer. You should make yourself hungry. If research is about fast-food, you have to make yourself hungry and busy at the same time. If perception should be viewed from the students' point of view, additionally I suggest you to have less money with you. This will be an excellent beginning of the experiment about finding the perception mapping accelerators.

What are the Perception Mapping Accelerators? We divide perception into two types according to the timespan:

- a) Long lasting and sustainable perception, for example the fact that “the game Lego is good for child creativity”.
- b) Short lasting perception appearing in the case of need, demand or want and disappearing after. The short lasting perception is based on Perception Mapping Accelerators or some immediate drivers, making us to engage in consumption.

The Perception Mapping Accelerators (PMA) are consumer drive oriented activities, feelings, attitudes, making person to choose one Want Creating Impulse (WCI) among thousands of others and is based on the immediate associations of:

- a) Sensor Based Stimuli like a taste/smell/quality, shape, design, soft touch;
- b) Economic Stimuli - cost/time, believed economic benefit;
- c) Cognitive stimuli – meaning;

In our experiment we encouraged our student researchers to write dairies. What one student wrote can be an example of this experiment - “Just I’m sitting together with my peers; I’m too busy with my examination. Today I started my classes at eight o’clock early morning; I had no time to feed myself. I’m too hungry. I have no time to do my lunch myself. This is first aspect of my thoughts about food. Usually I’m not best in Food Preparation. The next aspect of my thoughts about food is that I want some colorful food. More greens. I guess that I want little more vitamins. My body wants them. I’m hungry means that my brain works too fast”(Student’s diary).

### WHAT ARE DESIRED PERCEPTION ATTRIBUTES? HOW TO FIND THEM?

If you are hungry, busy and not a hedonist, you have two options:

1. Be more utilizer, routinize your wants, until next, happier time and go to fast-food, but which? Here starts the phenomenon of your Perception Mapping Accelerators (PMA):

- A) choice A- You want some taste of beef. This food makes you more energetic today, after classes you will sleep well, but you don’t want fat-rich hamburger. You want real meat. You are hungry and the smell of Chick fil-A blinds you. You are denied beef. “Okay let it be Chic fil-A, it will be great, big.” What one student wrote in her project diary was an excellent example of PMA - “I will eat well and go to sleep until next day, forget about everything.” In this example PMA is identified as: Fullness, taste of grilled chicken. This can be described by the motto- “forget anything, just eat”.

From this PMA we can identify DPA: fast, taste of big meat, to feel fullness, something like fast grilling, you energize yourself, after that you are okay, just go and eat.

- B) Choice B: Be less utilizer, less routinize, give little chances to your dreams, you want something colorful, like traveling and watching different cultures. Now about your PMA: You want to eat, many things together, you have passion for beans, onions, olive, many different vegetables, you want many types of cheese, you just need to make your stomach to rest from dry food and you understand importance of vitamins. So you decide to select either a burrito or salad. You guess that this is twice as expensive but sometimes it is important to make your life sustainable, eating natural things, but fast, very fast.

From PMA we identify DPA: too fast, taste of plenty of vegetables mixed with, beef, chicken or something like this, like different taste, but this amazing green and red, yellow, vegetables with some mixed rise make you to feel, comfortable fullness, something like good menu, you make yourself healthier, after that you are okay. Not only you enjoy the food, but your body is also okay.

### **THE PERCEPTION MAPPING ACCELERATORS OF TACO BELL**

In our research project we specially examined Taco Bell, the American fast food chain. From marketing research diary of our student Mr. Parker Miller we gathered this information – “Taco Bell is a very interesting company to me, but I almost never eat there. I made sure to drive around the building to see the signage on the outside, and I spent a long time examining the menu. From looking at the menu, I was able to draw some conclusions about which market Taco Bell seems to be segmenting and targeting. Other large fast food restaurants like McDonald’s, Wendy’s and Burger King all have one thing in common on their menu. They like to place emphasis on combo meals. Combo meals usually include a main item, a side, and a drink all for a price around the 5-7 dollar range. This makes for a good all-around meal for a reasonable price. From this, you can assume that these fast food chains are looking for their customers to experience a nice, pleasant meal without any craziness. Taco Bell is different, though. At the Taco Bell I visited, combo meals were an afterthought. With the combo meals pushed off to the side of the menu, it’s clear that Taco Bell is targeting a different customer. Instead of the combo meals, Taco Bell spends most of the menu space featuring a wide variety of cheap items. Taco Bell features single items for 1-2 dollars each, which is far different than the combo meal for 5-7 dollars each. It is clear that Taco Bell tries to encourage customers to buy more than one item, and gives customers the option to try out many different items in one meal. My conclusion is that Taco Bell’s menu encourages customers to be adventurous and unique, but other fast food chains want customers to have a safe, pleasant experience with the combo meal. The cheaper prices for food items and the greater emphasis on single items instead of combo meals makes me think Taco Bell is targeting the younger-millennial market. The younger millennial market is adventurous, seeks to have a fun time, and would rather have the control to piece together items for a low cost rather than being forced to buy a combo meal.

Taco Bell is a different story. They are pushing their new taco, the “Naked Chicken Chalupa”. The taco shell is made of fried chicken. They also sell Airheads flavored slushies, and for a while have sold Fritos flavored tacos”(Student diary).

PMA in this case can be - The attitude of the customer is adventurous, unique, and rebellious. They want to go eat with their friends and have fun ordering crazy items. They don’t want to be told what to order (combo meals are very restrictive). Instead, they would rather piece together their own meal by buying lots of cheap items together.

DPA can be found in this way: a) rebellious food, b) positive good taste, c) colorfulness, d) eating – travelling, c) for less cost. As Taco Bell’s menu was made for money-savers, Taco Bell’s menu gives you many options to order cheaply but have a great time anyway.

### **HOW TO TURN PMA AND DPA INTO ARCHETYPE ATTRIBUTES OF BRAND**

A brand is “the intangible sum of a product’s attributes: its name, packaging, and price, its history, its reputation, and the way it’s advertised”. A brand can have four important characteristics, such as attributes benefits, values and personality (Kapferer 1992; Keller 1993). Brand choice is linked with brand associations. How to manage

Brand personality? How to save brand and make it not to be high-jacked by someone in the wrong direction? Our Hypothesis is that Strategic Brand Management on Human-Receiver level can be done by special tools, using Jung's Archetypes.

If some person thinks that he or she is relevant, the person gets his/her portrait painted. Sometimes friends, colleagues, relatives, followers, and peers order the portrait of their distinguished partner, leader, founder, or ancestor. Painters sometimes visit the most interesting persons to paint their portrait. This happens even in the period of well-developed photography. Why cannot brands use this method? They surely can.

To establish the portraits of brands we need meaningful symbols. These symbols can be archetypes of Jung. As we know from Jung, archetypes are defined as "forms or images of a collective nature which occur practically all over the earth as constituents of myths and at the same time as individual products of unconscious origin"(Jung,1980). The unconscious was at the center of Jung's interests. The unconscious has big influence in decision making too. Archetypes make easy Brand Knowledge – "This brand knowledge affects how consumers respond to products, prices, communications, channels and other marketing activity – increasing or decreasing brand value in the process." (Keller, 2003).

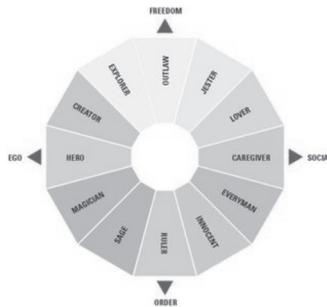


Figure 2: The archetypes of Carl Gustav Jung

(source: Golden, [http://www.soulcraft.co/essays/the\\_12\\_common\\_archetypes.html](http://www.soulcraft.co/essays/the_12_common_archetypes.html))

Archetypes either help brands in desired positioning or help customers to understand the character of these brands. What is the reason for organizations, products and services to appeal to their customers by the desired positioning? It can be their competitive advantage or "unique selling proposition"(Ries and Trout 1979). Now the paper will examine the use of branding strategies together with Archetype modeling. How can we do this?

Carl Gustav Jung identified four Cardinal Orientations of Archetypes:

- Freedom
- Social
- Order
- Ego

All these four Cardinal orientations have their three closest Archetypes. See table one.

Table 1 – archetypes and their cardinal orientations (Source: author)

Cardinal Orientations	Archetypes	Given Scores	Main Talent	Described Shortly
Freedom	Outlaw	100	Radical thinking	The rebel
Freedom	Jester	50	Joy	The fool/ joker
Freedom	Explorer	50	Ambition	The seeker
Social	Caregiver	100	Compassion	The saint
Social	Lover	50	Passion	Partner
Social	Everyman	50	Realism	Silent majority
Order	Ruler	100	responsibility, leadership	The boss
Order	Innocent	50	Faith	Dreamer
Order	Sage	50	wisdom, intelligence	The expert
Ego	Hero	100	Courage	Warrior
Ego	Creator	50	Creativity	The artist
Ego	Magician	50	finding win-win solutions	The visionary

To turn PMA and DPA into Archetype Attributes of Brand we need following actions:

A) Through focus group marketing research to realize what Cardinal Orientations we see in the studied brands. In our research we tried to understand cardinal orientation of the following fast food brands: Taco Bell, McDonalds and Subway.

B) According the concept of cardinal orientation, we should take into consideration the fact that not all archetypes can be assessed with the same scores, because for example Ego cardinal orientation is fully represented only by Hero archetype. We gave higher scores to Hero archetype than to Creator and Magician because Hero archetype is the classical example of Ego.

C) Classical archetypes fully representing the cardinal orientations are assessed in our matrix by 100 degrees; other archetypes have 50 degrees.

D) Gathering focus groups, marketers should ask their respondents about:

- What cardinal orientation do they see in the target brand?
- What kind of classical archetypes represent these cardinal orientations?
- What are the percentages of different archetypes in Brand Archetype Portrait of studied brands?

c) According to the percentage of BAPOR from brand portrait we can calculate Brand Archetype Power BAPOW.

**THE MODELING THE BAPOR AND CALCULATE THE BAPOW OF DIFFERENT FAST-FOOD BRAND – MCDONALDS, TACO BELL AND SUBWAY**

McDonalds – Cardinal Orientation to order. The main archetype here is – Ruler. Main archetype represented by 66% according focus group members, who were mostly the students of business school. The rest 34% is given to five archetypes: 6% - innocent, 7% - sage, 6% - magician, jester – 7%.

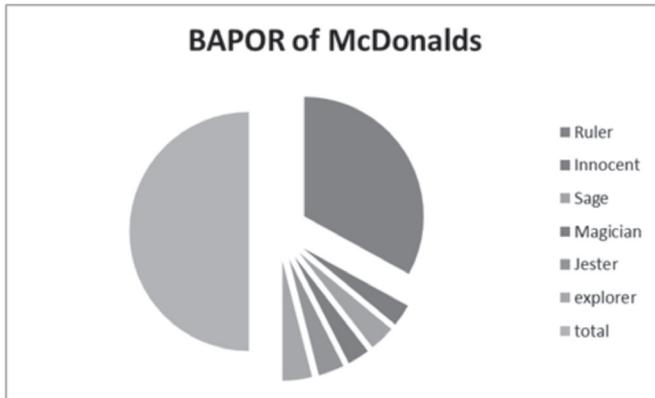


Figure 3: Brand Archetype Portrait of McDonalds (Source: author)

Table 2 – BAPOR and BAPOW of McDonalds (source: author)

Table 2: BAPOW calculation (Source: author)	McDonalds	BAPOR of McDonalds in %	Scores	BAPOW
Main Archetype	Ruler	66	100	66
Supporting	Innocent	6	50	3
Supporting	Sage	7	50	3.5
Supporting	Magician	6	50	3
Supporting	Jester	7	50	3.5
Supporting	Explorer	8	50	4
	total	100		83
Total BAPOW				83

BAPOR of Taco Bell is Social. Main or classical archetype here should be “Caregiver”. The other archetypes are “Lover” and “Everyman”. According the results of our research main archetype- the “Caregiver” represented by 46%. The rest 54% is given to the archetypes: 10% - lover, 20% - everyone, Jester – 14%, explorer – 10%.



Figure 4: Brand Archetype Portrait of Taco Bell (Source: author)

Table 3 – BAPOW calculation of Taco Bell (Source: author)

Brand	its arcetypes	TACO BELL,s BAPOR (%)	BAPOW	scores of arcetypes
TACO BELL	caregiver	36	36	100
	lover	10	5	50
	everyone	30	15	50
	jester	14	7	50
	explorer	10	5	50
BAPOW			68	

BAPOR of “Subway” is oriented to cardinal orientation of - Ego. Customer thinks not primarily about eating fast but about feed his/her body with some vitamins. This is typical – EGO. The Ego cardinal direction has classical archetype – Hero. It has 77%. The other archetypes have the following logical development.

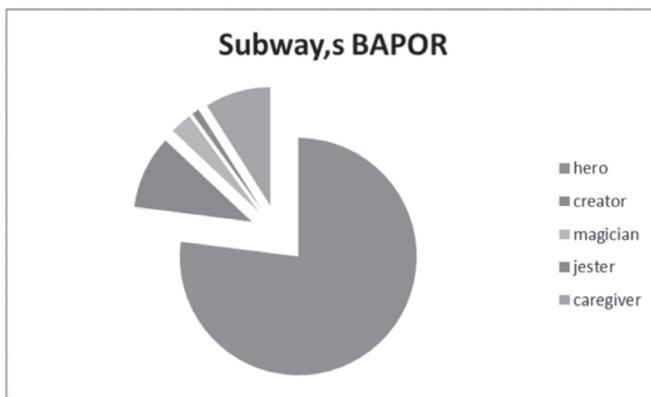


Figure 5: Brand Archetype Portrait of Subway (Source: author)

**Table 4 –BAPOW calculation of Subway**

Brand	its arcetypes	Subway,s BAPOR (%)	BAPOW	scores of arcetypes
SUBWAY	hero	77	77	100
	creator	10	5	50
	magician	3	1.5	50
	jester	1	0.5	50
	caregiver	9	4.5	50
BAPOW			88.5	

BAPOR of Subway can be the following:

#### WHAT DO BAPOR AND BAPOW OFFER TO BRAND MANAGERS?

We should know that Brand Archetype Portrait (BAPOR) and Brand Archetype Power (BAPOW) touch unconscious but also conscious attributes of some brands. Using BAPOR, we can understand many unknown things about products, services, companies, and brands. The archetypes of Carl Gustav Jung can be brilliant material for developing new successful brands as well.

In our assessment of McDonalds, Taco Bell and Subway, in the example of Kennesaw Community of students from Coles College of Business, we understand the following things:

**Table 5 – comparison of Brand by BAPOR and BAPOW (Source: author)**

BAPOR BAPOW comparission	Brand 1	Brand 2	Brand 3
SUBWAY	McDonalds	Taco Bell	Subway
	ruler 66%	caregiver 36%	Hero 77%
	innocent 6%	lover 10%	creator 5%
	sage 1%	everyone 30%	magician 3%
	magician 6%	jester 14%	jester 1%
	jester 7%	explorer 10%	caregiver 9%
BAPOR content	explorer 8%		
BAPOW	83	68	88.5

a) Different brands have their distinct cardinal orientations. In this orientation they must be the strongest. McDonalds has cardinal orientation – order. We see that this brand has high 66% dominance in the archetype “Ruler”, but it has low share in the archetype of “Innocent”, “Magician” and “Sage”. If McDonalds increases its dominance in other archetypes like a “jester” and “Magician”, “Sage” or any other archetype, its overall Brand Archetype Power can increase from 83 to higher level.

b) Taco Bell’s cardinal orientation is “social”. The main archetype of Social orientation represented by Jung’s archetype of “Caregiver” is crucial for long term success of Taco Bell. That’s why we can say that Taco Bell is still weak in “Caregiver” archetype, but it is strong in Everyone’s archetype. So Taco Bell must add power to Caregiver archetype and improve its image. BAPOW of Taco Bell is only - 68.

c) The Subway brand has brilliant place in Hero archetype, which represents its cardinal orientation in the “Ego” oriented archetypes. This is the best because Subway itself has “Ego” cardinal orientation. Subway can also improve its other archetypes and add others. In this case it can become more powerful. Brand archetype power of Subway is 88.5, which is very high.

#### CONCLUSIONS

Marketing pilot research project started at Kennesaw State University, together with the students of Coles

College of Business - successfully establishes new model of strategic brand management –which we called the Brand Archetype Portrait (BAPOR).

Through BAPOR we hope to measure success of all meaningful brands and calculate their Brand Archetype Power (BAPOW). This will be very interesting continuation of our study of unconscious oriented brand building blocks.

Through BAPOR studies, brands can find their strong sides in their Cardinal orientations, discovering what they truly represent.

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## BLOCKCHAIN TECHNOLOGY: PROMISES AND REALITIES OF THE YEAR 2017

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**Abstract:** *While the Internet is passing through a second era of development, companies and business environment are challenged by a disruptive technology: blockchain (BC), the platform underlying Bitcoin virtual currency. Considered a digital revolution, but in the same time a natural consequence of the Internet development, BC technology has deep implications for many companies. By now, BC-enabled projects crossed through multiple industries and services: banking, supply chain operations, real estate, insurance, healthcare, electronic health records, copyright, music, renewable energy, to name just a few. New BC-enabled projects are initiated mostly by leading IT and banking companies. The potential growth of the Internet of Things makes the BC technology come even closer and faster. In this paper we present the pros and cons for adopting BC technology and show some aspects of the current state in Romania.*

**Keywords:** *Bitcoin, Blockchain, Distributed Ledger Technology*

**JEL Codes:** *E42, E58, O33*

### INTRODUCTION

A huge wave of change comes on business environment: blockchain (BC) technology. "BC is an enormously powerful shared global infrastructure that can move value around" is the allegation on the site of Ethereum – a decentralized platform running smart contracts that powers a cryptocurrency, one of over 700 existing cryptocurrencies, different from Bitcoin [20]. The new technology has very encouraging perspectives in financial service industry and in all business sectors. In an interview, Vitali Buterin<sup>1</sup> (23), the creator of Ethereum project said: "In combination with 'smart contracts', the potential for BC becomes endless. According to the World Economic Forum, 10% of global gross domestic product will be stored on BC technology by 2025".

In the banking sector and insurance, despite its immaturity, BC technology promises a high impact on: decentralization, seamless evidence of transactions, automation of internal and external processes, elimination of intermediaries (clearing houses, brokers, payment networks). For the next five years the savings achievable by BC are estimated to be tens or hundreds of billions of dollars. Moreover, governments and central banks are considering the possibilities to implement the BC technologies in public affairs as tax collection, creating reliable, more transparent and irreversible records for property, healthcare records. Even if they still ignore or are reluctant to adopt the BC, the change is inevitable.

The introduction of BC technology is characterized by a fast pace, and it is expected to reduce costs, processing time, risks and create a transparent ecosystem.

### BC AS A DISTRIBUTED LEDGER

It is not enough a simple phrase to define BC, because it has many crucial capabilities: technological, business related, legal, and all are worth mentioning in a definition. Essentially, a BC is a time-stamped, digital cryptographic ledger, a constantly growing list of transactions (or "blocks"), added in chronological order and sequentially connected. This way the BC becomes a database of blocks. Each block has a link with a previous block on the list and once accepted, it cannot be removed. BC is a distributed database, since everyone having

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<sup>1</sup> Vitali Buterin is the code writer and the developer of smart contracts (computer algorithms which executes themselves), in collaboration with other developers.

access to the BC or every member of the market where transactions are performed possesses an integral version of it. Moreover, distributed database means that no single party controls the entire system, and each party can control the records of its transaction parties without an intermediary [2].

A distributed ledger is a data base usually spread among multiple sites, institutions and countries, and is typically public. The records are not stored into blocks, but in historical order. They can be added only when participants reach a quorum. The distributed ledger technology (DLT) requires more trust in validators, since not all the participants necessarily validate the records, thus ensuring faster operations than in the case of Bitcoin BC.

A BC is a distributed ledger system, but not all distributed ledgers are BC.

Born in 2009, as a platform underlying the digital currency Bitcoin, BC is considered today a disruptive technology, capable to shake up our lives in various fields wherever a reliable, immutable record of information is needed: financial transactions, smart contracts, insurance industry, supply chain operations, real estate, electronic health records, and so on. It is known so far that this technology has the immense potential to facilitate valuable features in any business: cheaper, less risky, faster services, allowing the database to be updated continuously.

The need creates the organ. The current financial system based on both paper and digital transactions faced several years ago the threat of Bitcoin – the digital currency – and, compared with faster, cheaper transactions in the virtual world, seems now inefficient, centralized and exclusionary. It is inefficient because it operates by a mix of more or less old technologies, paper-based and internet-based procedures; it is centralized and therefore more vulnerable to errors and attacks; it is exclusionary because billions of people have not access to the system. BC technology is designed to overcome some of these drawbacks – or at least this is the promise in the financial field [3].

### **LITERATURE (SELECTED)**

Most papers and books are from the area of computer science, they focus on the technological solutions or features of the Bitcoin network. Recognizing the existence of more concepts and protocols, Wattenhofer [1] presents the basic techniques when building fault-tolerant distributed systems. In more general terms, Swan [5] analyses BC as a “paradigm for the discovery, valuation, and transfer of all quanta (discrete units) of anything, and potentially for the coordination of all human activity at a much larger scale than has been possible before”. Even at a broader scale, contemplating the future, Tappscot & Tappscot [2] show that we entered the second era of the Internet, when any kind of asset, from money to music, can be stored, moved, transacted and managed, creating an “Internet of value”, and BC technology sets the basis of this new world. In his book, Mougayar [4] observes that BC being an Internet-based technology, “will be amplified by the four segments: web users, cellular phone users, website owners and any ‘thing’ that gets benefit from being connected and becoming a ‘smart thing’.”

Studies and reports have been developed for governments and companies, as a way to communicate and make understandable the features and the new situations that BC technology could create.

At the end of year 2016, the IBM Institute for Business Value with the support of the Economist Intelligence Unit surveyed 200 banks in 16 countries on their experience and expectations with BCs, aiming at differentiating the early adopters of BC and what can we learn from them [21]. The result was surprising:

- The early adopters are not small start-ups or fintech as many expect to enter first in the game, but a big number of medium sized banks, and have the chances to be large institutions;
- 15% of those surveyed are early adopters, expect to have a BC solution in commercial production and at scale during the year 2017 and, for sure, they are setting the pace. Mass adopters, 51% of banks surveyed, will introduce the BC until 2020. 34% are followers and will introduce the BC after 2020.

A report issued by UK Government Chief Scientific adviser in December 2015 [7], in collaboration with a senior group of experts from business, government and academia tried to answer the questions: “what are the applications of the DLT? For what purpose? Applied in what way and with what safeguards?” The report addressed especially to policy makers and intended to help them understand the technology and make informed decisions. “In summary, distributed ledger technology provides the framework for government to reduce fraud, corruption, error and the cost of paper-intensive processes. It has the potential to redefine the relationship between government and the citizen in terms of data sharing, transparency and trust. It has similar possibilities for

the private sector.” The report also explained what Digital 5 (D5) group of countries is: Estonia, UK, Israel, New Zealand, and South Korea, considered the most evolved in BC technology at that time.

Some researchers and famous IT bloggers are skeptical about the introduction of BC technology and expect many troubles once it will be implemented. For example, Jonathan Vaux, Executive Director of Innovation Partnerships, Visa Europe considers that BC has a paradoxical development from the human point of view, since the current use of the BC technology especially in the public and financial space does not fit anymore the initial intent of its creators: anonymity and decentralization.

“How can a system that actively prevents one party from knowing the other party’s personal details thrive in the financial space?” [10].

In 2017 Harvard Business Review (HBR) issued a series of articles that try to explain what BC is, which are the benefits of introducing the platform in different areas of business, and what are the consequences. Massachusetts Institute of Technology – Media Lab organized in April 2017 an event „Business of Blockchain” for training and information in the university campus<sup>2</sup>. Following this model, academic and research institutions from all over the world are organizing acknowledgment or training events around BC and its applications.

### BITCOIN EXPERIENCE

Bitcoin was first created as a response to the 2008 financial crisis. Considered an expression of libertarianism (non-intervention of state in private affairs, freedom of choice, individual judgment, self-ownership etc.) and antiestablishment opinions, it created a new community of users, miners, and developers, each having his/her precise role in the network [14]. Bitcoin is one of the first and simplest BC-based applications and an “unpermissioned” model. It is simple because it conveys no property or private data. It is “unpermissioned” because it cannot be owned and allows anyone to contribute or add blocks to the ledger and everyone in possession of the ledger to have identical copies, provided that he/she be accepted in the network. Bitcoin is extremely volatile, but at the end of June 2017 the price of a Bitcoin was stabilized at approx. \$2,600, triple what it was at the beginning of 2017. Ethereum trades at about \$260 with a market capitalization of about \$36 bill<sup>3</sup>. China is the country with the most users in Bitcoin, according to data from CoinDesk [15]. Nowadays, there are several millionaires in Bitcoin, but their true number cannot be detected. The researchers in Cambridge University in 2017, consider there are 2.9 to 5.8 million unique users using a cryptocurrency wallet, most of them with bitcoin [8].

Bitcoin is an example of how a decentralized, automated financial system can work, successfully, but not always legally or ethically. Some observers say that as Bitcoin value rises, so does the criminal activity.

The experience is twofold: on the one hand it is considered a success in terms of decentralization, independence of a third party in peer-to-peer transactions, on the other hand a threat to the current financial system that needs to be monitored, since Bitcoin networks, besides the usual currency transactions, have facilitated illegal or criminal transactions on the black market (weapons, drugs etc.) difficult to be discovered especially because the generation of bitcoins could not be located in a certain country or region, so local legislation and settlements cannot be applied. As a consequence, the adoption of Bitcoin as a currency is disputable, but this fact did not prevent smaller or larger companies in all over the world from accepting bitcoins as payment: WorldPress.com – an online company that allows users to create free blogs, Microsoft – to buy content on Xbox and Windows store, Dell – the American privately owned multinational computer technology company, several food and tourist companies, Wikipedia, Bloomberg, MIT Coop store, LOT Polish airlines, Mexico’s Universidad de las Americas Puebla – an university in Mexico, Rakutan – a Japanese e-commerce giant, RE/MAX London – UK franchisee of the global real-estate network, etc. In 2015, the number of merchants accepting bitcoin exceeded 100,000.

How can a borderless technology be denied? How could Internet be denied or ignored? Once started, only decapitalization can stop the development or, market capitalization of Bitcoin boosted in the last years: from approx. \$11 bill in January 2014 to \$41 bill at the end of June 2017 as the site coindesk.com shows [15], so there

<sup>2</sup> <http://events.technologyreview.com/presents/business-of-blockchain/2017/>

<sup>3</sup> After we wrote this paper, Ethereum, which is the second capitalized virtual currency after Bitcoin, lost \$22 bill in two months (July 17, 2017), proving once again the volatility of the virtual currencies.

is no chance to be overlooked. The resources needed for current transactions with the cryptocurrencies can be provided at any time and place: Internet protocols (bandwidth), computing power and electric power (may be too much).

The mistrust in Bitcoin of several central banks and authorities were strengthened by the collapse of the largest Bitcoin exchange in March 2014, Tokyo-based MtGox, which at that time came to public attention: the company declared that it was hacked and double spending was allowed for a while [5]. After years, the things remained unclear: was MtGox affaire an external attack or an internal embezzlement? The founder of the company denies it was embezzlement and still fights in the court to demonstrate that. Silk Road, a digital black market, was discovered to have transactions related to terrorism and money laundering. These are only two examples of unclear or criminal uses of Bitcoin, but there are more, known or unknown. The issue is still present on other cryptocurrencies' markets<sup>4</sup>.

The mistrust in BC of some authorities and companies could reflect the suspicions on Bitcoin.

### **PROS AND CONS**

There are several interesting features that support the potential development of BC technology but, in the same time, create concerns regarding its functionality:

1. No central authority or single source needed – the BC transactions are peer-to-peer. The decentralized system is similar to the market economy: the system does not function via a central plan, usually headed by government, but works through local, free interactions on the market. Similarly, every node in the network has autonomy and its own copy of the BC, and when new blocks are added, they must be proofed by the existing nodes. This job requires trust and general consensus to ensure the integrity of the system. In other words, the whole technology is based on consensus, not on the approval of a central body.

The lack of a central authority creates a challenge for the incumbent financial system and has the potential to disrupt the operations. Bypassing the regulatory power of a central authority is risky. The risks are augmented by the fact that the necessary regulations have to be taken not only at national, but world level. The lack of central authority facilitates misleading information of BC evolution (as, for example, inflating the trading volume of exchanges on Bitcoin markets).

2. No third party needed, no human intervention, except parties in the transaction, thus enabling cheaper, faster transactions. A secure private key replaces the intervention of a middleman by the network of computers, which verify blocks of transactions with algorithms. Even if they are not very well understood, algorithms convey trust (and fear) to the general public. This way, BC uses mass collaboration, computer codes, and algorithms to establish confidence in order to move value between peers.

The trouble here is the limitation of the blocks to 1 megabyte in size, which creates delays in processing the transactions. Thus, the speed and volume of BC operations is much lower than the current volume of transactions with VISA, for example (7 transactions per second in the Bitcoin network compared with typical 2,000 transactions per second and 10,000 in peak in case of VISA network). Other similar metrics show typically 5,000 (15,000 transactions per second in peak demand) in twitter network and over 100,000 transactions per second in advertising networks. Scalability challenge needs to be overcome [5], since the data of BC cannot be compressed, or the compression algorithms are not yet satisfactory. So, at this time, especially public BCs are not exactly cheap to operate: they need power, space, and energy; the miners need to be rewarded, to fulfill their job.

3. Several BC-based financial models occurred, including Bitcoin. Most are customized banking or insurance solutions, difficult to replicate in another environment than that they have been created in. This approach is a potential challenge in generating a holistic digital ecosystem. Without standardization and interoperability the technology will be impossible to scale up, to reach the promised automation level. In the financial sector, banks and other financial services will need to collaborate intensely, agree on protocols and maybe on the same BC models as the Berger report observes [16].

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<sup>4</sup> At the beginning of July, 2017, one of the largest Bitcoin exchanges, Bithumb, South Korea, was hacked, \$1 billion equivalent in Bitcoin was stolen, and 30,000 customers' data has been compromised. The robbery was announced at the Police after one day.

4. BC has the potential to lower costs, as the IBM study found by surveying 200 banks [21]. But before taking benefits from the implementation, significant changes must be made to the technological structure of the companies. Are they able or willing to sustain the investments needed to implement the new technology? To sustain the power consumption of a network? The process of mining Bitcoin is energy intensive and the power increases proportionally to miners that add to the network. "It has been estimated that the energy requirements to run Bitcoin are in excess of 1GW and may be comparable to the electricity usage of Ireland" [7]. Do the benefits justify the investments? Do the companies have enough resources?

5. Because BC is a database, the promised revolution brought by it can be viewed as a deep change in every aspect of business, life and even civilization in those aspects which depend of data [13]. Data in BC are a digital asset and therefore inherits all the characteristics of a digital asset: it exists in digital format and comes along with the right to be used. BC can be stored on digital appliances or platforms (computers, laptops, cloud) and has an existence *per se*, no matters the physical device is located on. Faulty reference data may cause losses.

Who uses which data? To what purposes? These are the questions arising once the BC technology will develop to reach commercial use. Having in view the Bitcoin experience, in the U.K. the regulators have concerns over BC's lack of control over AML (Anti Money Laundering), ATF (Alcohol, Tobacco, Firearms and Explosives), etc. [6]

### SEVERAL RECENT BLOCKCHAIN SUCCESSES

Many BC-enabled applications have been developed especially starting with 2014. Since then, the BC and the DLT was implemented in different public affairs not only in the D5 countries, but all over the world [7].

The IT and financial sector are the most prepared fields to receive BC benefits. Here are several significant facts:

R3 (R3 CEV LLC) is a company founded in 2014 that initiated in 2015 a consortium of most prominent financial institutions (now over 80: banks, clearing houses, exchanges, market infrastructure providers, asset managers, central banks, conduct regulators, etc.) with the aim to develop groundbreaking commercial applications of BC and DLT for the financial services industry [30]. On May 23, 2017, R3 announced that it secured the largest ever investment for DLT from over 40 institutions from 15 countries globally [29].

In October, 2016, Commonwealth Bank of Australia, Wells Fargo and Brighann Cotton "have undertaken the first global trade transaction between two independent banks combining the emerging disruptive technologies of BC, smart contracts and Internet of Things. The transaction involved a shipment of cotton from Texas, USA to Qingdao, China, using the efficiencies of a distributed ledger – Skuchain's Brackets system – for all parties", announced a press release [24].

In May 15, 2017 Microsoft Office, through its Stampery application, made steps forward offering the ability to check documents through Bitcoin and Ethereum blocks. At this time, the on-line certification of documents involves storing digital signatures through a centralized entity. The introduction of BC technology could help in validating documents. The option will be accessible for checking emails without users leaving the Outlook application itself and will improve the confidentiality and secureness of data [30].

Hyperledger project, an umbrella project, started in December 2015, hosted by the Linux foundation, the nonprofit organization enabling mass innovation through open source includes leaders in finance, banking, Internet of Things, supply chain, manufacturing and technology. The project is meant to support collaborative development of BC-based distributed ledgers, to advance cross-industry BC technologies. IBM provides BC solutions and services leveraging Hyperledger technologies (Hyperledger Fabric and Hyperledger Composer) [25].

In 2016, central banks in the UK and Canada joined the similar institution in Singapore announcing that they were studying a possible use of BC technology, but refused for the moment the replacement of their currencies.

Other business applications of BC are initiated:

In July, 2016, the Industrial and Commercial Bank of China supported a BC platform of Xinyuan Real Estate, a real estate developer and property manager. The platform will include a network of institutions to, among other things, register, assess and finance property [21].

April, 2017. The retail giant Walmart Store Inc. starts BC-enabled projects with IBM to strengthen food safety and inventory management “by tracking meats and crops from farm to table”. The pilot project was updated to track mangoes and pork in China, as the products move through the supply chain. Data about the food farm origination, batch numbers, expiration date, factory data, shipping details were entered in the BC network at each step of movement [26].

April 7, 2017. Apart of financial, other applications of BC are initiated by the giant IBM. One of them develops a BC technology in partnership with ASCAP (American Society for Composers, Authors, and Publishers) and PRS for music (Performing Right Society for Music), to unlock value for music creators worldwide, by introducing a transparent, permanent ledger system to storing data on copyright, attracting payments to content creators [23].

In Russia, the applications of BC technology in the country include the tracking of goods, building identity as well as ownership rights protection systems, as an official declared at The World Economic Forum held in St. Petersburg, Russia, in early June 2017. The technology enjoys encouragement at presidential level [28].

June 29, 2017. The Japan government will apply BC technology for on-line administrative services, both for citizens and for companies, aiming to improve security and reduce costs as the Agency EFE relates. In spring 2017, Japan legalized bitcoins as a form of payment [18]. “The Ministry of Internal Affairs and Communications will begin testing a data processing system based on this protocol and is expected to use it on a larger scale for services, including the online administrative and financial management”, as Japanese daily Nikkei reported [27].

EU Parliament is concerned about the social impact of the BC technology. In a document prepared for and addressed to the Members and staff of the European Parliament and issued on May, 2017, the authors from the European Parliament’s Research Unit ask themselves if BC has the potential to change social European values and how? [11]. “The most profound impact of BC development could be through its contribution to subtle changes in broad social values and structures. Just because technologies can be used for both ‘good’ and ‘bad’ actions, does not mean that they are neutral. On the contrary, all technologies have values and politics, usually representing the interests of their creators.” The authors also provide an informed point of view in future BC technological development in Europe, showing that the impact is fast, disruptive and irreversible.

Some researchers show rather a prudent optimism. They are saying that BC is, in some situations, just a buzzword, and the applications are only formal. “Unfortunately, the exuberance of fintech investors is ahead of the development of the technology. We’re often seeing so called BCs that are not really innovative, but instead are merely databases, which have existed for decades, calling themselves BCs to jump in the buzzword bandwagon.” [14]

### **PROGRESS OF BC TECHNOLOGY IN ROMANIA**

In Romania there are over 11 million Internet users and over 18.5 million IP’s. The penetration rate for Internet users is 58%. However, Romanians made payments in 2016 in bitcoin equivalent to 300,000 Euro only, according to data released in March 2017 by Netopia mobilPay. The average payment was EUR 400. The Central Bank of Romania (BNR) does not encourage the payments with Bitcoin, as Ruxandra Avram, Head of the Regulatory and Monitoring Systems for Payment and Settlement Systems, an official of BNR declared. In an approximating English translation, Avram said: “We, as a Central Bank, do not believe much in Bitcoin, because it is not tangible. Personally, I see a superposition between BC and the virtual currency itself. We do not digest very well the BC technology. Others say that it is good to take and use the technology – to what? The European Central Bank is also reserved and suggests pushing BC technology to the AML authorities or combating financing terrorism. Let Central Banks to adopt the models they are familiar with and control” [19], [9].

A 2-year pilot project of 500,000 Euro started in April, 2017 in Romania, among other countries, initiated by the European Commission. The aim of the project is educational and informational, but in the same time the Commission is planning to develop a common BC platform and find out what are the implications. The project will help the European Commission to understand what role the public European authorities are expected to play, if case, to encourage the development of the technologies BC and DLT, and what are the recommended connected policies [12].

A survey administered in June 2017 to EMBA students from the Institute for Business Administration in Bucharest was rather disappointing from the point of view of awareness of BC and DLT. The survey intended

to test the level of awareness of several terms and technologies among students: bitcoin, BC, DLT. As a conclusion, we can say that only 2 are fully informed about these notions out of 39 students; 33 or 85% are generally informed about bitcoin (searched once for the Bitcoin notion on the Internet), one makes transactions; there are two involved in the Bitcoin network as miners or investors or activists. But almost 70% of students never heard about BC technology, 15% barely know what BC is. Regarding DLT, 87% never heard about it, and only 2 students know about DLT.

## CONCLUSIONS

The interest of authorities and companies for BC is growing, especially private companies, fintech and IT giants. Tens of projects based on BC technology are developing in all over the world. However, there are some technological, business and legal questions that have not yet satisfactory answers in the current development of BC: decentralization that brings risks, high level of computer power and energy consumption, lack of anonymity of transactions, slowness of unpermissioned distributed ledgers, lack of standardization and other interoperability issues, lack of rules and regulations at the government level regarding the allocation of rights to use a network without affecting the privacy of people, etc.

Authorities and governments, including EU officials are still waiting for solutions to create common platforms to apply BC-enabled projects at a large scale. Some EU countries are more evolved in adopting BC solutions (Estonia, Sweden, France), for collecting taxes or initiating public ledgers in various fields, but Romania is not one of them. In the Romanian business environment it seems that the BC technology and DLT are pretty unknown or considered a matter of study for IT experts. Business schools need to have in view the fast, disturbing pace of development of BC and DLT, and at a minimum, to inform students and create a positive perception of the new technologies, despite the skepticism displayed of the National Bank of Romania. We consider that the technological innovation is so radical, that not all the banks and businesses will survive the introduction of BC, if they fail or are unable to respond.

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## BREXIT NEGOTIATIONS AND THE IMPACT ON BUSINESS ENVIRONMENT

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**Abstract:** *For 44 years, UK was full member of the European Union. Step by step, UK moved from a custom union to an economic union with all the advantages of a large regional integrated area. The decision to exit EU was taken under a referendum, without analyzing before all the economic consequences on the UK and the regional business environment. his article will present some of the major issues of this decision and different scenarios of the negotiations with the EU and some of their impact on the local, regional and global level.*

**Keywords:** *Brexit, referendum, customs union, single market, the four freedoms, EEC, WTO.*

It is well known that foreign trade is an engine of economic growth. After the 2WW (World War), the rate of growth of international trade was higher than the GDP worldwide and the consequence was the deepening of interdependencies among countries. This was the result of the liberalization of trade under the multilateral trade negotiations based on the most favored nations (MFN) clause of the WTO (World Trade Organization). In parallel, as a "second best option" and as an exception of the MFN clause the liberalization of trade occurred at the regional level under different forms of integration. The most advanced of these is EU with 27 full members and a market of more than 500 million people.

It is interesting that one of the main important reasons for the EU integration, 60 years ago, was a political one, mainly to avoid after war conflicts among European countries. It seems that this reason was not so important for the new comers with the extension of EEC (European Economic Community) from 6 to 28 (with UK), the economic aspects being more important. Perhaps this is explaining some of the differences in the perceptions about the EU integration between the original founding members that signed the treaty of Roma in 1957 and the other members that come at different stages of integration in the EU.

### THE BREXIT PROCESS

On the 23<sup>rd</sup> of June 2016 the UK electorate voted to leave the EU with a majority of just less than 52% in a referendum. As a consequence, UK, the fifth largest economy in the world, is forced to reconsider its relationship with the EU with all the implications that this decision has for the country's international relations as well as for domestic politics and business environment.

"What the referendum outcome probably demonstrated most clearly was how far public opinion was out of step with the government's cost-benefit argument for EU membership".<sup>1</sup> Or 44 years ago membership has been evaluated in terms of costs and benefits, trade creation and trade diversion and not as an emotional commitment.

The UK government initiated Brexit by invoking Article 50 of the Treaty of The European Union. It stipulates that the EU and UK have two years in which to negotiate a withdrawal agreement and the UK's future relationships with the EU.

Any agreement to be accepted by the EU has to be approved by 72% of the member states, representing at least 65% of the population of the EU.

At present, the European council will have to decide by unanimity whether sufficient progress has been made on 3 key issues of citizens' rights, the financial settlement and the Irish border, in order to start negotiations over the future of trade. This is important as the Irish border is intrinsically linked to whatever future customs arrangement is struck with the EU.

<sup>1</sup> A. Glencross, Why the UK voted for Brexit, Palgrave studies in European Union Politics, 10.10.57/978-1-137-59001-5-1

From the economic point of view, the EU is based on the idea of a single market, characterized by four freedoms: the free movement of goods, services, capital and people. For the UK to have access to the single market requires acceptance of all four EU freedoms, including freedom of movement.<sup>2</sup> This is important because roughly half of the immigrants from UK come from the EU and over 50% of those who support Brexit consider immigration their biggest concern, which means that the correlation between hostility to immigration and support for Brexit is high.

Another major issue refers to the UK contribution to the EU budget. UK is one of the 11 net contributors to the EU budget with a yearly net contribution of roughly 10 billion GBP according to CNN data.

Other issues refer to the onerous regulations imposed by the EU to the free movement of people or the financial services.

In conclusion, from the EU perspective, if UK wants to have access to the single market, it will be required to respect the four freedoms, to pay dues and to keep continuing most of the EU regulations.

### **STRATEGIES TO EXIT**

There are many ways to leave the EU and all of them with great impact on business environment. It is not possible to leave the single market but retain all its benefits, nor to quit the customs union, but keep the free market.

The EU's approach to Brexit is to insist that future relations must follow a number of different options.<sup>3</sup>

The first option is membership of the European Economic Area (EEA), which links Norway, Iceland and Lichtenstein to the EU. EEA members are fully integrated into the EU's single market for most goods and services, but not for agriculture and fisheries. They are not in a customs union with the EU that means that their exports are subject to rules of origin inspection, but they can have free trade deals with third countries. The single market rules require them to accept the free movement of goods, services, capital and, crucially, people.

EEA countries have an "emergency brake" to block the free movement of people, though it has never been used. Lichtenstein is allowed to set quotas for EU migrants. They also have to observe laws which are enforced by the European Court of Justice (ECJ). And they make contributions to the EU budget almost as large as Britain's, on a personal basis.

In other words, using the Norway model would mean the UK would accept roughly the same conditions as those prior to Brexit, but with an additional cost: losing a vote in the EU.

The Norway model does allow a bit of wiggle room to opt-out of certain EU politics. The question would be how much wiggle room the UK would be allowed.

The third option is a Swiss one. Along with Norway, Iceland and Lichtenstein, Switzerland is a member of European Free Trade Association (EFTA), but is not in the EEA. Switzerland, instead of negotiating a treaty with the EU, has negotiated separated relationships with each member state (using over 100 bilateral treaties dealt together over decades). It has also two sets of complex bilateral deals with the EU that give privileged access to the single market for goods, though not for agriculture. But it is outside the market for most services, including financial services. It is also outside the customs union. It too has to observe most single market laws. And it makes a big contribution to the EU budget. If UK insists on taking back control of borders, laws and money, it means that UK ruled out both of these options.

The Swiss are not, but they may be allowed to ensure that most jobs are offered first to Swiss citizens. As for budget payments, they are smaller than for full members and are mostly dressed up as research funds or aid to Eastern Europe.

Britain could struggle to get a deal like that of Switzerland. The EU dislikes the complexity of the arrangement and would be unlikely to replicate it for the bigger British economy. But British negotiations could look to this option carefully as they may find precedents that allow them to legitimize some of the concessions they need.

The fourth option might be called Turkish. Like San Marino and Andorra, Turkey is not in the EEA, EFTA or the single market, but it has formed a customs Union with the EU for non-agriculture goods trade. This means that

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<sup>2</sup> Deepack Malhotra, *A Definitive Guide to the Brexit Negotiations*, HBR, august 05, 2016

<sup>3</sup> *The Economist*, July 22-28, 2017, p. 25-27

Turkey gave up with the trade policy independence and is forced to apply the common external tariffs of the EU, but has the advantage that there are no barriers or rules of origin checks on exports of goods to the EU. Being only in the customs union and not in the single market, Turkey is excepted from the EU's four freedoms, budget contributions and the European Court of Justice (ECJ). It would also prevent the return to customs control at the Irish border.

The main disadvantage of customs union is that it precludes free-trade deals for goods with third countries. But the free trade barriers with the EU is worth more than any number of hypothetical future free-trade deals with third countries. From the UK perspective it "exports more to Ireland than it does to China, almost twice as much to Belgium as it does to India and nearly three times as much to Sweden as it does to Brazil". (Mrs. May speaking in April 2016).

The fifth option that UK favors is a deep and comprehensive free trade deal, like the association agreement with Ukraine or the trade deals with Canada and Japan, the latter not yet concluded. This will preserve tariff free access for most goods and could even cover some services (thought not usually financial services). It would mean no free movement, no automatic adaption of EU regulations and probably not ECJ, though some dispute resolution mechanism would be needed. The disadvantage would be the customs controls and rules of origin checks, many services will not be covered and there would be non-tariffs barriers thanks to differential regulations.

A sixth option would come into force if no agreement is reached within two years and the EU treaties expire. It means to revert to trading with the EU under World Trade Organization (WTO) rules. This is not totally straightforward, because although Britain is a WTO member, its tariffs and import schedule of its own would require dividing up the EU's import quotas for things like New Zealand butter.

Trading on WTO terms implies small tariffs on goods such as cars and pharmaceuticals and larger ones on farm products. It does not cover services and non-tariff barriers would remain. And there is the WTO most favored nation (MFN) clause that means if Britain and the EU agreed to avoid mutual 10% tariffs on cars, they would have to offer the same deal to other countries. Under the WTO terms, trade barriers, such as tariffs would emerge where none existed before, hurting all sides, but especially the UK.

### **BREXIT EFFECTS ON BRITAIN**

The Center of Economic Performance at the UK London School of Economics (LSE) concludes that the hardest form of Brexit, a reversion to WTO terms, would cut trade by 40% over ten years and reduce annual income per person by 2,6%. A softer version like the Norwegian model would cut trade by 20-25% and reduce annual incomes by 1,3%. And these are just static effects of trade diversion. There would also be dynamic negative effects from lower investments and slower productivity growth.<sup>4</sup>

Similar data is coming from a think tank of the National Institute of Economic and Social Research. They calculated that downgrading from single market membership to a free trade deal with the EU would reduce British trade by about a fifth, whereas free trade deals with the four BRIC countries plus America, Canada, Australia, New Zealand, Indonesia and South Africa combined would boost it just 5%.

In conclusion, if they want to minimize losses from Brexit, they must cede some sovereignty to the EU, while to maximize freedom from Brussels, they must accept a larger drop of incomes.

Another issue is that Britain has to find a way to replicate the 35 free trade agreements that it currently has via the EU with 53 countries, which would be hard with tough negotiations like South Korea and Mexico. Several big countries, including America, China and India, are negotiating new deals with the EU, from which a post Brexit Britain would be excluded. Some 44% of British exports go to EU, 16% to countries with which the EU already has a free trade deal and about 20% to America.

Third countries need to know the terms of Britain's trade with the EU before making bilateral deals.

Some 35 EU regulatory bodies govern such things as medicine, aviation safety, environmental rules, financial services and phytosanitary standards. All come under the ECJ, so Britain must set up a new set of regulations of its own. These would largely have to replicate the EU's rules to maintain the regulatory equivalence. Most companies prefer to stick with the system they know and many fear setting up British regulations would not only

<sup>4</sup> Ibid p. 27

take time and money but also force them to obey lots of rules, not one.

Hundreds of treaties on matters like air transportation and data sharing must be renegotiated with third countries. Ways must be found to cooperate in scientific research, foreign policy, defense, security, counter-terrorism and intelligence. All of these raise yet again the issue of the ECJ, which has jurisdiction over data-sharing and various justice and home affairs measures, including the European Arrest Warrant.

One conclusion is that all this cannot possibly be dealt with by March 2019. To give the European Parliament time to ratify the Art. 50, its terms must be agreed by around October 2018. Business that have to plan ahead, such as airlines, need certainty long before that. Without a deal allowing them to fly after Brexit, airlines might have to stop selling advance tickets. The same is for banks and others that want to know the rules before. The conclusion is that it must be a transition period after March 30<sup>th</sup> 2019.

Business lobbies and treasury are pushing to stay in both the single market and the customs union during the transition, to minimize disruption. The simplest idea would be to prolong the status-quo for three or four years. An alternative might be temporary EEA membership, but Brexiters might fear that the temporary arrangement would become permanent.

Transition will be key to making Brexit less disruptive. This is especially true of the trade deal that Britain would have to negotiate with the EU - that might take up to ten years after the government suggestions.<sup>5</sup> There are also a lot of uncertainties that can distort, exaggerate or make up their own facts.

One assertion is that 3 mil jobs in Britain depend on trade with the EU. In fact, because of those close links among European economies the true figure could be higher. Others will say that it is impossible that all trade with EU would cease. Anyway, job creation depends more on demand, wage levels and labor laws than on memberships to a trade block.

Another concern is the British contributions to the EU budget - an unfairly large amount of almost 20 billion GBP (28 billion \$) a year to Brussels, or 55 mil GBP a day. In fact, this is the gross amount before deducting both the rebate won by Margaret Thatcher in 1984 and the money the EU spends in Britain. Adjusting for these and for some foreign aid spending via Brussels, the net payment is less than one-third, as big as 17 mil GBP a day and Britain is only the eight largest contributor per head.

Competing claims are also about trade patterns. One issue here is which source to use: Europe's statistical office, the British government and the IMF, all have different figures. Another is whether to cover just goods or add services. Based on some statistics, EU takes 45-50% of British exports, whereas Britain accounts for a tenth or less of the EU's, around 8% using the IMF figures.<sup>6</sup>

But the biggest question is whether to count the EU as a block, discounting all intra-EU exports. Doing that puts the share of EU exports going to Britain at almost 16%. But in trade negotiations, individual countries, not the EU as a whole, decide what to accept. (John Springford, Center of European Reform)

It is true that German cars makers would want to sell to the British market. But several other countries run bilateral deficits with Britain or barely trade with it at all, a deal would not interest them.

But other countries trade negotiators might find the British market of 65 mil consumers less attractive than the EU's 500 mil.

The impact of leaving the EU on Britain's economy is difficult to assess as there is no counterfactual. Nobody can be sure what access Britain will have to the single market, what its regulatory regime and migration rules will be, or how long any of these may take to negotiate.

The conclusion of six the most comprehensive studies demonstrated how uncertain the outcome is.

Losses arising from lower trade are by far the biggest. A study on Brexit from Groningen University in the Netherlands concludes that because of trade creation Britain's trade with the EU has been 55% greater than it would have been without membership - and that there have been no detectable losses from trade diverted from the third countries towards the EU.

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<sup>5</sup> The Economist, June 2016, "In, out find a job to shout", p. 3

<sup>6</sup> The Economist, IMF Direction of Trade Statistics, June 2016, p. 3

*Finger in the air<sup>7</sup>**Forecasts of Brexit's impact on Britain economy*

Organization	Date made	Effect on GDP %
Center for Economic Policy Research	2103	-1,24 to -1,77
Institute of Economic Affairs	2104	+1,10 to - 2,60
OPEN Europe	2015	+1,55 to - 2,20
Center for Economic Performance, LSE	2016	-1,30 to - 2,60
PWC	2016	-3,00 to -5,50 in 2020
Oxford Economics	2016	-0,10 to -3,90

Losses could come also from lower foreign investment as the evidence is that a large part of foreign investment, especially in financial services and cars, has come because of Britain's EU memberships.

There were no gains from a fewer onerous rules, as British labor and product markets are already among the least regulated of all its members based on a OECD analysis.

In terms of migration the economic growth would depend on attracting from elsewhere the skills its economy needs. Yet it is politically unrealistic to believe that Britons who have just voted to leave EU party to curb uncontrolled migration from Eastern Europe will want to welcome many more migrants from places like India and Africa.

There are now about 3 mil EU migrants in Britain.<sup>8</sup> Yet over half of net immigrations come from outside the EU.

A post Brexit Britain might not be able to stop EU immigration anyway. If it wants to retain full access to the EU single market, it will probably be required to accept the free movement of people, as Norway and Switzerland are both having proportionately more EU migrants than Britain.

Most Brexiters insist on tougher controls. They say heavy EU migration burdens taxpayers, drives up welfare spending, strains public services like health and education and aggravate the housing crisis. Some argue that migration steals jobs and reduces wages, especially for lower paid.

In reality, several studies have found that EU immigrants, unlike non-EU ones, are net fiscal contributors. Britain's employment rate is at new high, so there is little sign of migrants taking natives' jobs.

Rich countries need migration to thrive, not least to sustain their public services. A growing population can create problems, but a shrinking one is worse.

Considering Romania, there are currently over 230 000 Romanians in Britain, making up the third largest group of EU citizens after the Irish and Poles, according to the Bloomberg data. This is a good reason for Romania to negotiate that the future agreement between the EU and UK to protect the rights of all EU citizens to access to the UK labor market, particularly those already living and working in Britain.

According to the Russell Group<sup>9</sup>, UK Universities could lose talented EU staff unless they receive greater clarity from the government on the post-Brexit rights of EU nationals. One solution proposed by the UK is to require EU nationals continuously residency in the UK for at least five years and to apply for "settled status" which would effectively guarantee them indefinitely to remain in the country once Britain lifts the block. This has to be negotiated as the EU warned that UK would give EU citizens fewer rights than their British counterparts.

### **BREXIT EFFECTS ON EUROPEAN UNION**

Most of the Brexit debate has been about its effects on Britain. But British departure would also have a profound impact on the European Union. The euro crisis is not over, the GDP growth is slow, youth unemployment is high and Greece again in difficulties. The EU would lose much prestige from the exit of one of its biggest

<sup>7</sup> The Economist, The Economic Consequences, April 9th 2016

<sup>8</sup> The Economist. "Let them not come", April 2nd 2016

<sup>9</sup> The Russell Group is composed of 24 universities including the Oxford, Cambridge, Glasgow and Cardiff, which are often subscribed at undergraduate level and heavily focused on research

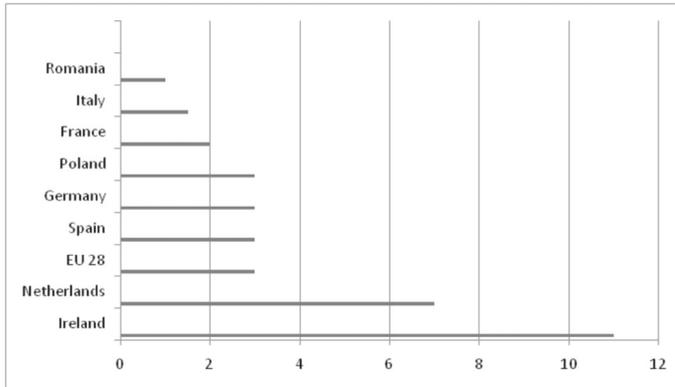
members. Britain is one of the few EU countries with real diplomatic and military power. Brexit is bad for transatlantic relations in which Britain is a key intermediary.

All these mean that other EU countries are seeing Brexit as a hostile act meriting firm response to avoid encouraging others to leave.

In terms of trade, the bargaining power of the EU is far stronger. For Britain, exports to the EU make up 12,6 of GDP, whereas for the EU, exports to Britain are only 3,1%. And for many countries, all of which will have to ratify a new trade deal, this ratio is smaller (see chart).

*Not a lot of leverage*

*Exports to Britain, 2014, % of GDP*



Source: ONS, Eurostat H.M. Treasury

*The Economist*, "How others see it". April 30<sup>th</sup> 2016

In the case of Romania, its exports to Britain are worth only 1,5% of GDP, and it may also be asked to accept curbs on migration if Britain leaves EU. But Romania can have a voice in the negotiations as it was happening when it threatened to veto an EU-Canada trade deal because of the Canadian visa restrictions.

The financial services industry could be one of the biggest losers from Brexit. If today London is more obviously the financial center of both the the EU and the eurozone, after Brexit "London could no longer be the financial capital of Europe" (Jose Manuel Barroso, a former European Commission president).

Almost 2,2 mil people work in financial and related services such as accounting and the law, two thirds of them outside London. They produce nearly 12% of GDP, 11% of the country's tax take and a net trade surplus of 72 billion GBP (\$104 billion). Financial services have taken a third of foreign direct investment in Britain since 2007, most of it coming from the EU. Some 250 foreign banks operate in London and over 200 foreign law firms have offices across Britain.

A Brexit study by PwC, an accounting firm, concludes that gross value added in financial services would fall by 5,7%-9,5% by 2020 and employment by 70 000-100 000. The sector would grow slowly and some firms would relocate to other EU financial hubs.

On the other side, Brexiters argue that Europe cannot replicate city: the real competitors are New York, Singapore and Hong Kong, not Paris or Frankfurt. But the most current practitioners want to remain in EU. The risk is that part of the industry would migrate. Dublin and Luxembourg are strong in fund management. The most immediate threat is the clearing and settlement of euro trades, which the European Central Bank (ECB) has already tried to relocate into the euro zone. Were Britain to lose EU, it will lose this judicial protection. The profits from clearing and settlement are crucially important to financial services.

Because of this uncertain future, some in the city reckon that sterling could fall by another 20-30% post-Brexit – the betting on which may explain why few hedge funds back the idea.

## CHALLENGES FOR BUSINESS PEOPLE

Brexit created uncertainty for the UK, EU and global economics. A systematic shock cutting across industries

and borders poses significant strategic challenges for business leaders<sup>10</sup> in terms of magnitude, duration and differential of the impact.

From the political point of view, UK faces dissolution pressure if Scotland seeks to salvage its EU membership, while the EU has every incentive to make Brexit a painful experience to deter other defectors, making the outcome of negotiations difficult to predict.

From the financial point of view, one indicator could be the strong correction of the pound (-11% versus dollar) and the equities (-13,6 FTSE 250) that were recorded in the first two sessions after the vote.

From the trade point of view, EU as we have seen represents 47% of UK exports, facilitates an additional 13% through non-EU trade deals and currently negotiates with countries an additional 21% of UK exports. While UK needs only eight bilateral trade agreements to cover 80% of its current exports, there is a long tail of 18 additional countries that worth more than \$1 billion in UK exports and an additional 132 countries to cover all exiting exports. Both internal and external forces drive uncertainty about duration and outcome of the reconstruction challenge.

The fact is that there are also practical problems. Because Britain has been in the EU for 44 years, it has little experience of bilateral trade negotiations. The rules for exit say trade deal with the EU should be done in two years, yet this is optimistic – the Canada deal took seven years.

Another aspect difficult to evaluate is the partners' willingness to engage with Britain in a constructively and timely manner.

From the real economy point of view, the uncertainty derives from the delayed or canceled investment decisions on the anticipatory redeployment of employment as production assets. Here too the directional impact has been analyzed credibly with estimates ranging from 3%-9% of GDP loss. Here it is the speed, depth and duration of these effects – on demand, consumption and employment across industries that drive uncertainty.

One of the UK's biggest business lobby groups has urged the cabinet to bridge the "Brexit Gap" between leaving the EU and setting up new trading arrangements. This could minimize the growing level of confusion and uncertainty in this area. Because of this, there is a large amount of business investment that is being postponed until business can see more clearly what the likely outcome of this discussions is. (Cancellor of the Exchequer - Phillip Hammond). Or business people all over the world need to have stability, transparency and predictability in taking their decisions.

In conclusion, the decision for Brexit would have to be a cost benefit analysis negotiated on longer term and not an emotional decision worked out before analyzing the macro and the micro effects of this decision.

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## CRISIS AS CHANCE, THE STATE AND THE BUSINESS ENVIRONMENT

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**Abstract:** Romania is in that period of its history characterized by rapid transformation at all levels. From a historical perspective, the State is the institution serving a nation. What has happened to the State that a lot of things go wrong and the nation is more or less dissatisfied and how much longer will the past influence us, so that the nation can benefit from Romania's resources? The answers to these questions should evolve from a strong public-private dialogue. Based on this dialogue a new and efficient economic strategy for the development of the nation should arise. In this regard, the private business environment might provide a successful idea, "the competitive advantage" concept, as the pivot for a new strategy; the last economic crisis might provide the starting point for the implementation of the new economic strategy in our country, and not only.

**Keywords:** economic development, economics, economic crisis, competitive advantage, macroeconomic policy, macroeconomic policy design, policy, planning policy, applied macroeconomics, strategy, change, developing countries, transformation.

**JEL Codes:** A11, E61, M200, O210

### INTRODUCTION

This analysis proposes an idea for a new national strategy for economic development approach that will allow Romanians to better benefit for the country's resources. The hypothesis is that the State will improve its public-private dialogue and the fight against corruption will continue with success for the social well-being and societal security.

After the last economic crisis, a new chance we have to create and implement a new economic strategy for Romania. This is a necessity because Romania has to adapt to the actual globalization process that has a new profile. "What will ultimately decide the fate of any country is how well it adapts to the new nature of globalized networks." [1].

"The near future main battlefield won't be the air or the ground, but the economies interconnected infrastructures" [2]. Romania's economic infrastructure is poor and it should be reshaped, due to its actual lack of a coherent strategy that leads to tremendous wastes.

### THE CONCEPTUAL BASE OF THE APPROACH

A new chance we have and I might dare to say that the whole world has it with the global economic crisis and its economic forecasts as hypothesis. The following basic ideas, come from a selection of three major public and private sector economic forecasts:

**The first selection of forecasts emphasizing two major economic ideas are coming from the private sector, as follows:**

- I. It seems that a lot of future clients will not be able to spend money on many things than the common living goods.
- II. It seems that world should give more attention and spend more money on social related measures than up to now.

**The second group of four public sector forecasts comes from the following analysis of the "Business Insider" about the "Global Trends 2030: Alternative Worlds", a publication of the National Intelligence Council of the US Government, the Report on Mega-Trends [3]:**

### 1. Individual empowerment

“Over the next 15-20 years, the government expects that the majority of the world’s population will no longer be impoverished — a world first — thereby granting people newfound empowerment and autonomy in their lives”.

### 2. Diffusion of power

“If current economic and demographic trends hold, North America and Europe will lose status and influence as developing countries in Asia become more prominent world powers”.

### 3. Demographic patterns

A combination of aging populations, fewer children, migration, and urbanization will lead to a dramatically different world in 2030. “Aging countries will face an uphill battle in maintaining their living standards”.

### 4. Growing demand for food, water, and energy

“With more empowered individuals and a growing global middle class, the government’s research says the demand for food, water, and energy will rise by approximately 35, 40, and 50% respectively”.

**The third public sector guidance regarding “How should countries respond to the challenges of globalisation” comes from the EBRD:**

“The EBRD’s new transition concept argues that to be successful and modern an economy should be more than just competitive; it should also be inclusive, well-governed, green, resilient and integrated” [4].

That’s why, the proposal for a future economic strategy development is that small and medium size countries, like Romania, and not only, should take advantage of crisis time to reorient their economies and base the development strategies on their *competitive advantages*, because they will no more afford wasting any kind of resources. This policy should be encouraged from the political level and then distributed through media level, for having citizens’ feedback, in the process of private – public dialogue that should be compulsory.

A “cook book” on this topic might be written by first beginning with an in-depth analysis of the country’s economic strategy policy, on one hand and on the other hand with an analysis of its main resources, corroborated with “the pollution situation, knowing that emissions and economic growth trends are often coupled” as expressed by EEA (European Environment Agency), in the ‘Industrial pollution - country profiles 2016 – Romania’ [5].

## EXAMPLES OF ROMANIA’S COMPETITIVE ADVANTAGES

Speaking about resources, Romania has over 10 million hectares of agricultural land, diverse energy sources (coal, oil, natural gas, hydro, nuclear and wind), and opportunities for expanded development in tourism on the Black Sea, Danube Delta and also in the mountains. In this regard, the author could give three major examples for some of Romania’s most important resource that are *competitive advantages* in front of most of European countries:

**Young people with high IT qualifications.** “Romania’s main competitive advantage in software development consists of its highly qualified, cost-effective human resources. In terms of IT outsourcing services, Romania is ranked in the third place worldwide after China and successfully challenging India. Romania is the leader in Europe, and the sixth in the world, in terms of the number of certified IT specialists, with density rates per 1,000 inhabitants greater than in the US or Russia” according to A.T. Kearney’s Service Location Index quoted by TELUS [6].

Romania has also international Olympics winners in chemistry, physics and mathematics, with results in gold, silver and bronze medals for each of its participants, each year and in 2017, too. [7]. In the same time, the “brain drain” is the worst phenomenon that we are confronted with and which will have serious long-term and long-lasting repercussions. “Since Romania joined the European Union (EU) some 10 years ago, over one million Romanians have emigrated in search of better work opportunities and lives. As many people looked West for better prospects, to countries such as Germany, Italy, Spain and the UK, Romania has suffered from the phenomenon that is often described as ‘brain drain’” Forbes, 2017 [8].

**Oil and natural gas.** As mentioned in the “Brief History of Romanian Oil Industry”: “With 10 refineries and an overall refining capacity of approximately 504,000 bpd, Romania has the largest refining industry in the region.

Romania's refining capacity far exceeds domestic demand for refined petroleum products, allowing the country to export a wide range of oil products and petrochemicals, -- such as lubricants, bitumen, and fertilizers -- throughout the region" [9]. Romania is also among the few countries in the world that have sulfur-free petrol that can be better used in the pharmaceutical industry than for fuels. Unfortunately, Romania has privatized this sector, and the royalties negotiated are some of the smallest in the world, fact that requires a review of contracts from another position.

**Agricultural land.** If we take the case of agriculture, "between 2006 and 2009, the irrigation decreased by 10 times, a large part of the vineyards and orchards were destroyed, the amount of fertilizers was reduced to 1/3 compared to the 1986-1989 period. In terms of performance, the Romanian agriculture became extensive during the market economy, but there are relatively few differences in the results expressed by the yield level" [13]. It is quite relevant for Romania's strategic future that until 2013, the interest of the citizens for investments in agriculture amounts to over 17 billion euros from European non-reimbursable funds, the demand reaching 175% compared to the allocation of 10 billion euros, according to PARDF [10]. Since 1989, Romania didn't lack projects to develop the economy including agriculture. Unfortunately, as we see today, the impact was poor, but Romanians still hope and one prove is that in the last day of the "Start Up Nation" program, for example, the rate for projects registration to AIPPIIMM was one project per second. However, this is a program dedicated to increase the number of jobs for all the economy, not only in agriculture, having allocated for 2017 a budget of about 380 mil. Euro for maximum 10.000 SMEs [11].

It seems that we no longer want to be the "European grain", as we have been characterized after exporting more than 3 million tons of wheat in 1938. At that time, the yield per hectare was about a quarter of today's average. But it is true that, as at that time, the price of the grain in Europe was settled in the Braila Commodities Exchange, from Romania.

#### **ROMANIA'S COMPETITIVE ADVANTAGES DEVELOPMENT STAGE**

Today, in Romania and not only, some industrial products and related activities are inefficient and represent an important source of pollution (water, air, land), waste generation and remarkable energy consumption, such as: chemical solvents, paints, paper, industrial by-products (secondary products) and waste from mining and quarrying.

"One of the aims of environmental policy is to decouple economic growth from emissions and drive down emissions trends, while allowing economies to continue to grow", as mentioned in the "Industrial pollution country profiles 2016 – Romania" [4]. What we see now in the Romanian economy, a quarter of century after the Revolution, is that none of the *competitive advantages* mentioned above have been stimulated for growth to the highest level possible, nor the decoupling of hazardous industries. More than that, "the arable land decreased year by year, decreasing in 2012 by over 7315 hectares and perennial plantings decreased by over 8314 hectares compared to 1997 (year in which the reduction of arable and perennial land began)" [12]. "The irrigation systems in 1989 was largely destroyed" and "were restored only to an extent of 30-35%, but only about 250,000 hectares were put into service, i.e. 8% of the area designated for that purpose before 1989" [13]. In infrastructure sector, Romania was unable to build at least a single modern highway to cross the country to improve tourism and again nothing has been done by several governments about the young intellectual "brain drain" situation, and other examples in this regard could continue.

Unfortunately, the growth enjoyed by Romania and the other economies in transition of Europe and CIS region, suddenly disappeared when the economic crisis appeared. The real perception for this situation is that this phenomenon was due to the lack of a healthy strategy for the development of these economies. Truth is that their economies were "guided" by trends, such as, the foreign investors' interest for certain fields and sectors of economy (real estate, banking, resources for energy, etc.) instead of a strategy based on their *competitive advantages*.

Obviously, the State should guide the creation of a competitive economic strategy, based on an in-depth analysis, that have never been finalized for Romania in a quarter of century.

## CONCLUSIONS

“ . . . the idea of the future being different from the present is so repugnant to our conventional modes of thought and behaviour that we, most of us, offer a great resistance to acting on it in practice.” John Maynard Keynes, 1937.

No doubts, even if the Romanian economy will not take the chance to be reshaped on solid grounds this time, future will prove that only a strategy focusing *competitive advantages* in the area of human, land and underground resources could be the viable solution for a healthy and successful economic development in the actual world globalization environment.

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