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INNOVATIVE MODELS FOR CREDIT PORTFOLIO QUALITY MANAGEMENT FROM THE PERSPECTIVE OF MICROFINANCE ENTITIES

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Abstract: *The financial performance of credit portfolios is directly linked to decision processes based on time series forecast accuracy, as a foundation for operations strategy. This paper is focusing on the quality management of client portfolios, based on the analysis of time series forecasting, encompassing trend and seasonal variations within regression analysis. Our analysis provides a view of the client management processes from the perspective of a microfinance institution (MFI) in the case of clients generating profits in their activity but with little or no access to banks and/or other non-banking institutions. More precisely on focus are clients such as small businesses and agricultural producers.*

Keywords: *Portfolio management, microfinance institution, applied forecasting methods, operation management*

THE MICROFINANCE INDUSTRY: CONCEPTION AND EVOLUTION

The Microfinance Industry has been conceived to alleviate the poverty and to give solutions to financial exclusion of the population disregarded by mainstream banking institutions. In time, a drift in the mission of these entities took place in such a way that poverty alleviation principles and results have been displaced by the commercial principles and metrics that bring near the MFIs to the mainstream banking institutions. The evolution of the Microfinance Industry is an illustration of how techniques, metrics, values and principles borrowed from other fields and applied in a new entrepreneurial one to serve as vocabulary, logic for legitimating the activities or effective performance, lead to the displacement of entrepreneurs' initial aim and goals.

At the beginning, the fundamental goal of microfinance was to make cheap credits to persons leaving in poverty, unable to offer collateral in order to set-up productive firms with a high impact to poverty reduction. The successes of the MFIs in some less developed countries from Africa lead to the development and the mainstreaming of that industry supported by different UN initiatives.

LITERATURE REVIEW

In refining the financial mechanism of MFIs, the main goal of poverty alleviation has been accompanied by two others that initially seemed to complement each other but soon proved to be the base of the mission drift. The complementary goals were the sustainability – the goal to permanently maintain sufficient flow of revenues to cover the operating expenses over time as key factor to impact the poverty on long horizon of time and outreach – the goal of serving an increasing number of clients, as a key factor for ensuring the inclusive banking purpose (Derin Kent, 2013).

The explosion of the business in the Microfinance Industry has been accompanied by the criticism oriented to the very basic grounds of this field of activity: on the one hand, the methods of poverty lending became very sophisticated and the repayment rates to the MFIs exceeded those of the majority of commercial banking, and on the other hand, the aggressive lending practices determined an escalating level of debt for the borrowers.

All those arguments were accompanied by metrics showing that the microfinance industry missed to produce evidences about socio-economic development: in the commercial banking logic, the MFIs proved to prefer clients easy to be assessed, they preferred urban to rural clients, rapid growing businesses to farming ones. In this way, the MFIs diverted from their social mission and competed more and more for the clients of the traditional commercial banks (Derin Kent, 2013).

Using cross country and panel data, some researches highlighted that a country with high per capita gross loan portfolio granted by MFIs tends to have lower levels of poverty indices, and thus the microfinance significantly reduces poverty at macroeconomic level (Imai Katsushi, 2012).

The mainstream research offers insights on the evolution of MFIs before and after the 2008-09 financial crisis (Bald, 2000). The conclusion of the research is that microfinance has become vulnerable to financial turmoil, as reflected in the credit growth pattern. The results suggest some important correlations useful for our research too, such as:

- The MFIs that used more aggressively the domestic and international capital markets in the pre-crisis period recorded larger decline in the credit growth during the crisis period than the corresponding entities which accessed the capital market in a more moderate way.
- Medium size MFIs recorded a significantly larger decline in credit growth than small and large microfinance institutions.
- The operations of the MFIs are less affected during the financial crisis in the countries with moderate economic slowdown, avoiding high inflation, with reduced dependency on remittances and more opened to the international trade and capital flows.
- Over the last 20 years as MFIs become more integrated to the mainstream financial system, their vulnerability to the financial crisis increased (Wagner Charlotte, 2013).

Using a large data set of multi-country MFIs for a horizon of time of 11 years, some researchers tried to clarify whether MFIs have been confronted with the mission drift or not (Merslad Roy, 2010). The main conclusion is that the results are not indicating a mission drift. Starting from the Bank Profit Framework method, the research hypothesizes that the profit per credit client is correlated with the average loan amount. The results indicate also that the more cost effective a MFI is, the smaller the average loan and the prediction that the future efforts to reduce costs will allow the microfinance institution to reach even poorer segments while the profitability stays at the same level. The efforts to reduce costs per client and a better management might provide the MFIs good economic grounds to stay in the poorer customer segment (Merslad Roy, 2010).

A 2015 research (Widiarto Indra, 2015) compared the Islamic MFIs with the conventional ones assessing the comparative performance with regard to two objectives: social and financial efficiency respectively. Some of its conclusions are important for our research, such as: a) there are MFIs that succeeded to follow the two basic objectives simultaneously; b) in the regions with early adoption of microfinance, the longer time for calibration of the scale and strategy, the deeper the penetration in the poorest borrowers and, as a result, the higher the mean social efficiency, in contrast with the situation where the operations of the corresponding institutions are at the beginning of the learning curve regarding how to increase and enlarge the attainment of the targeted poor clients; c) MFIs that have smaller loan portfolio have higher social efficiency, and MFIs with larger loan portfolio have higher financial efficiency; and d) it may be debatable and worth further investigation the proper assessment of the existence of mission drift only from total loan portfolio since, a large loan portfolio may consist of many small loans.

According to the findings presented in the recent literature numerous mathematical tools and algorithms have been used with success for credit scoring in traditional banking entities. However the design and validation of dedicated tools for the credit rating and scoring in microfinance industry is a relatively new demarche given the double basic objectives in the process of fund allocation (Cubiles-De-La Vega Maria Dolores, 2013). Thus all the proposed instruments must fit the goals and management criteria of the MFIs, meaning less business component and higher social component, different from those used by the mainstream banking institutions.

The current paper proposes a modeling tool aiming to increase the efficiency of the MFIs by assessing the credit applicants in groups in such a way to get reduction in cost of credit analysis, improve the cash flow, speed up the decision process, realize a closer monitoring of existing accounts and prioritize the collection.

BUILDING PORTFOLIO MANAGEMENT PROCESS

Credit portfolio management process is part of building a sustainable financial institutions business model. The efficiency of the process is reflected directly on the financial performance, and in the same time has an amplified positive impact of the credit granting activities, by insuring positive payment history.

Microfinance segment of clients is "prone to the credit risk due to their nature of service and need proactive credit risk management techniques for their long-term sustainability. If the microfinance institution does not manage its credit risks well, it will likely fail to meet its social and financial objectives" (Asuri Venkata Madhavi, 2014).

"Global financial institutions and banking regulators have emphasized risk management as an essential element of long-term success. Managing risk is a complex task for any financial organization, and increasingly important in a world where economic events and financial systems are linked" (Bald, 2000).

Credit portfolios management of microfinance has distinct characteristics in emerging markets: "Administering a bank's risk assets portfolio, could be far more daunting than in building the portfolio. However, this depends on the quality of the risk assets and portfolio. Where the lending portfolio comprises a large stock of nonperforming loans, or a bank operates in an environment where default rate is high, credit admin becomes even more excruciating" (Onyiriuba, 2016).

In the decisional process of building operational management system for MFIs there are characteristic factors with high impact on the sustainability of the MFIs business model: client's financial education level, social impact in local comities – correlated with managing relations with small communities reflected in payment behavior, and loan officers in the decision-making subjective judgment.

Client's low level of financial education creates the necessity of building sustainable systems for managing the associated risk (Vinita Kalra, 2010). In the same time "MFIs consider the social impact of their loans, [but] they do not incorporate formal systems to estimate this social impact [...] The reputational risk is considered one of the main threats to microfinance institutions" (C. Serrano-Cinca, 2013).

Another specific characteristic for microfinance methodology is the high level of empowerment for loan officers in the decision. "To make correct decision in relationship lending approach, credit committee can rely on subjective judgment of experienced loan officers mainly when the latter judged the creditworthiness of frequent borrowers. As soft information is not easily and accurately transferable, MFIs have more interest to retain their experienced loan officers than their borrowers" (Baklouti, n.d.).

This type of characteristics for MFIs with high impact on financial performance and weak measurements tools increases the role of the timely and relevant information in the process of portfolio management operations, building capabilities to predict future performance based on previous years evolution.

Portfolio management process, as part of the risk system, has to create adapted operations for delinquent clients and financial products designed to support the clients that are experiencing financial difficulties. Considering client's low level of financial education and managerial capabilities to develop business and to adapt to significant changes, microfinance portfolios need strong monitoring tools. Microcredit institutions risk management policies focuses collection processes on early delinquent buckets 1-30 days past due, considering limited payment capacity.

"Microcredit tends to have lower rates of arrears [delinquent clients], but higher administrative costs than conventional loan products. Its higher operating costs are compensated for by higher interest yields" (Berger, 2000).

STRATEGIC IMPORTANCE OF FORECASTING

The portfolio management process, from a MFI point of view, consists of several steps to be followed with full understanding and dedication of management and employees to achieve the stated objectives of improvement:

- Customer relationship management, oriented on improving business relationships with customers;
- Debt collection management, with the goal to optimize debt recovery, managing client relationship based on trust and oriented to customers' financial education;

- Credit restructuring process, which refers to practices, strategies and technologies that companies use to manage past-due loans, adjusting payment plans to customers' payment capacity;
- Client segmentation based on defining groups that can be targeted, enabling the MFI to define specific risk and operational strategies adapted to clients' needs;
- Forecast future trend of credit portfolio quality, with the goal to adapt strategies to the credit portfolio life cycles.

As we can see, forecasting plays an important role because, as an integrated part of the portfolio management process, it provides valuable information that helps identify the most effective and efficient collection strategies. It is crucial to carefully analyze the past-due portfolio especially when the MFI experiences an increase in delinquency.

The financial performance of credit portfolios is directly linked to decision processes based on time series forecast accuracy, as a foundation for operational strategy.

This paper is focusing on improving the quality management of client portfolios, based on the analysis of seasonal time series forecasting, encompassing trend and seasonal variations within simple and multiple regression analysis.

Our analysis provides a view of the client management processes from the perspective of a MFI, focused on clients such as small businesses and agricultural producers. We want to explain how forecast drive decision process. On short term we are exploring the use of forecasting behavior on account-level over a period of time, such as delinquency in the next 3-6 month. On medium and long term forecast we are focusing on portfolio forecasting based on regression analysis.

RESEARCH METHODOLOGY

We use a quantitative forecasting method namely time series forecasting with the trend generated by linear regression, to draw conclusions about the portfolio quality through a specific indicator for microfinance: Portfolio at Risk (which we will refer to as PAR30), representing loans overdue by 30 days or more. When the time series exhibits seasonality, multiple linear regression with dummy categorical variables will be introduced.

PAR30 – Time series forecasting with linear regression equations

The mathematical model of multiple regression is developed to predict a dependent variable (Y) by two or more independent variables. The multiple linear regression models are:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + \varepsilon$$

Here, $\beta_1, \beta_2, \dots, \beta_k$ are the coefficients of the independent variables X_1, X_2, \dots, X_k (similar to the slope), β_0 is the intercept, and ε is the error term.

We use multiple linear regression to reflect seasonal factors, integrating dummy categorical variables for the monthly components (Evans, 2012). For monthly seasonal component, the multiple linear regression models are

$$Y = \beta_0 + \alpha T + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_{11} X_{11} + \varepsilon$$

where Y is the monthly portfolio value, T is the time variable and codes the months, X_1 is the dummy variable for January, X_2 for February, and so on. December is the reference month with no dummy; and ε is the error term. The regression coefficients $\beta_0, \alpha, \beta_1, \beta_2, \dots, \beta_{11}$ will be estimated by the least squares method.

PROCESSING THE SAMPLE DATA AND RESULTS

We will apply the up-mentioned models using three years' time series Portfolio at Risk 30 days past due (PAR30), from a microfinance portfolio of an Eastern Europe nonbanking financial institution, a MFI, extracting two client segments: small businesses and agricultural producers (small vegetable farming). PAR30 trend for the portfolios considered is better than market benchmarks. For the time frame analyzed, 2012-2014, the approval process frame maintained stable (based on loan officers evaluation and centralized control filter), with a relative

stable credit portfolio average annual growth. Collection process was reengineered in 2010, building a debt collection specialized department. Collection strategy is centered on the client, adapting collection processes to the clients' low financial education level, through a very close collaboration frame collection-sales, combining client relationship management with collection.

The multiple linear regression equation for the estimated Small Business Portfolio PAR30 (Eur), Y(SB) is:

$$Y(SB) = 2,128,295.38 + 29,222.54 * t + 617,981.13 * Jan + 579,800.74 * Feb + 303,471.01 * Mar + 567,230.49 * Apr + 785,576.87 * May + 393,108.62 * Jun + 580,996.2 * Jul + 766,034.99 * Aug + 301,183.72 * Sep + 633,452.11 * Oct + 466,101.18 * Nov$$

The computer output of the regression is shown in Figure 1, and a graph of the actual and forecast monthly values is provided in Figure 2. At 5% significance level, the F value is almost zero, thus proving that the model is significant overall. Our model is sufficiently accurate, as shown by the R squared adjusted: 83.4% of the variability of Y has been accounted for by predictors. All the p-values are much less than 0.05 (almost zero). The regression coefficients are all positive, proving a constant increase of the portfolio value against the reference month of December. The mean absolute percentage error (MAPE) for this forecasting model is 2.6%. The clients' behavior is different from month to month. However, based on this model, it was possible to make a monthly forecast for the values of credit portfolio in 2015.

Considering the high potential of the regression equation to predict the future evolution, we can build the decisional process focused on how to identify the potential improvements, exploring the factors that lead to performance. From the forecast equation, we can identify the constant part, $\beta_0 = 2,128,295.38$ Euro, the components for the PAR30 trend, a monthly increase related with portfolio growth (29,222.54 Euro in December), and different seasonal components for each specific month for the last three years analyzed. Comparing PAR30 at the end of the quarter with the first two months of the quarter, there are different patterns of payment behavior. According with studies above mentioned (page 5), one of the main risks identified specifically for microfinance portfolios is the level of financial education and managerial capabilities of the clients. In order to redesign internal processes, the assumption has been validated with qualitative information from collection and sales teams. From the perspective of an operational management process, the potential improvements for PAR30 indicator can be generated focusing on changing behavioral patterns. We will analyze the portfolio trend five months after the operational management decisions were implemented. Using the regression forecast equation on what customers are likely to behave, we can measure the efficiency of the decision implemented, comparing the calculated results with actual data.

So, we were able to predict the values for the portfolio PAR30 for small businesses in the first five months of 2015. After implementing the managerial changes, we collected data on the actual values of the same portfolio and compared the forecast vs. actual along these five months. The MAPE for these 5 months was 9%. As all the forecast values were higher than the actual, we interpret this as an improvement after the managerial changes were made.

The linear regression equation for the estimated Agricultural Produces (vegetable small farms) Portfolio PAR30 (Eur), Y(AP)

The monthly time series for Agricultural Produces needs a different approach, since, surprisingly, the seasonality analysis proved not to be an appropriate option. Another type of linear regression model was built, based on the high correlation coefficient between the data in PAR30 and the time period (0.91). The portfolio value definitely depends on time. Running the regression we got the following result:

$$Y(AP) = 249,914.1 + 13,296.24 * T$$

where Y(AP) is the estimated monthly portfolio value, and T is the time variable and codes the 36 months.

The computer output of the regression is shown in Figure 3, and a graph of the actual and forecast monthly values is provided in Figure 4. Since the autocorrelation coefficient of order 1 is positive (0.89), one can identify a tendency for the system to remain in the same state from one observation to the next. The intercept, 249,914.1

Euro, is statistically significant, so it can be interpreted as a starting point for the time series, the value of the portfolio one month before our analysis started. There is a significant monthly average increase of 13,296.24 Euro. At 5% level the F value is almost zero, thus confirming that the model is significant overall. Our model is sufficiently accurate, as shown by the R squared adjusted: 82.3% of the variability of Y has been accounted for by the time variable. The p-values for both coefficients are essentially zero (less than 0.05). The MAPE is around 10%. Based on this model, it was possible to make a monthly forecast for the values of credit portfolio for the portfolio of vegetable agricultural produces in 2015.

The results also show that the agricultural produces (small vegetable farms) portfolio had an increase of delinquency between August and October and a lower delinquency levels in December. The reduction in delinquency in December shows that beside the specific characteristics of vegetable agricultural cycles, there is a payment behavior component which should be taken into account. Exploring the factors effecting on small vegetable farm clients, we have identified similar factors with small business portfolio in modeling the client's payment behavior: financial education (mainly business decapitalization, related with managing personal consumption levels) and production sales decisions. In the next section we will analyze the efficiency of decisions by their results reflected on actual data, as compared with the results provided by the regression equation built on the last three years.

We made a forecast of the of the portfolio values PAR30 for vegetable farms in the first five months of 2015. After implementing the managerial changes we collected data on the actual values of the same portfolio and compared the forecast vs. actual data along these five months. The MAPE for these 5 months was 29.6%. As all the forecast values were higher than the actual, we interpret this as a consistent improvement after the managerial changes were made.

Regression equation in both portfolios proves to become (i) a tool to improve control over the future evolution, by comparing actual results with trends, (ii) a tool to build decisions in resources allocation, and (iii) a starting point to model client's payment behavior.

IMPROVING PROCESSES

In our case, we analyze the effects of innovating through a continuous improvement strategy, over two types of microfinance portfolios. We are looking at the decisional process of building collection process for the MFI. We are focusing on decisions oriented to objectives of efficiency, effectiveness and flexibility of the process. The two portfolios of the MFI analyzed are built based on client relationship management focus, which is reflected in: (i) identifying amicable solutions in the collection process, (ii) improving client relations level focused on payment education, and (iii) developing a microfinance institution-client partnership. At the same time, the collection process integrated high accuracy prediction procedures, based on regression analysis, payment behavior and qualitative information from collection team.

Considering administrative costs restrictions and characteristic factors with high impact on the sustainability of the MFIs business model (client's low financial education level, high social impact in local comities, and loan officers subjectivity in the decision-making), the managerial strategy adopted was to innovate through continuous improvement, and small steps for stimulating employee's innovation and monitoring future trends. Innovating processes on an ongoing basis, using small steps, has advantages in motivating employees through involving them in innovation process, thus reducing investments funds for research. At the same time, the capability for future evolution forecast strengthened the decision process.

The efficiency improvement for the collection process was identified to be linked with further developing the strategy centered on client. Decisions on main three areas focused on payment behavior change were implemented:

1. Process control strengthen on delinquency buckets implementing matrix organizational structure correlated with payment behavior, and seasonal variations (allocating specialized resources correlated with client segment);
2. Investing in client relation, focusing on early delinquency bucket – proactively identifying delinquency symptoms, further coaching clients to improve their managerial decisions;

3. Driving priorities in contacting the clients based on payment behavior on account level, correlating seasonal intervals with higher delinquency.

This phase of reengineering the process has been designed and implemented during the fourth quarter of 2014, analyzed in the regression equations. The actual values of the two portfolios in the next five months from the implementation of decisions (January-May 2015) were compared with the predicted values (calculated with a known accuracy). For Small Business Portfolio the actual values of PAR30 are 10% lower than the predicted values (Figure 5); for Agricultural Produces portfolio the actual values of PAR30 are 29.6% lower than the predicted values (Figure 6). We interpret these differences as a successful implementation of our improvement strategy.

Building client oriented debt collection operations contributes to the payment education programs. Starting from credit evaluation process, they are important in establishing a real partnership considering client's business administration abilities level and financial products understanding.

CONCLUSIONS

In credit portfolio management it is very important to understand the life cycles and to create specific key performance indicators. Key competitive advantage can be built on (i) developing a culture of detailed measurement metrics, (ii) implementing forecasting tools to predict future trends and developing optimization analytics, creating tools to decide over reengineering processes. A better understanding of what drives the portfolio performance will enhance the ability to identify and implement adapted solutions, continuous innovating processes, resulting, finally, in improving profitability.

Detailed analytics tools increase predictability of future profits, visibility for management and investors. In our case we built regression equations to forecast portfolio quality for two different client segments with seasonal payment behavior patterns, also used in the client's behavior management process. The results in influencing clients behavior at 30 days past due for two different client segments, compared with forecast trend based on three years data, shows the high predictive power of the regression models and their utility in reengineering operational strategy decisions.

Our proposal for the next steps of the innovation process considers the success of previous decisions for redesigning the process, confirming the importance of building the process on a customer oriented strategy. Payment behavior analysis has been used to set priorities in the collection process. As a further innovation step we are considering payment behavior scoring implementation as an efficiency improvement tool, strengthening the ability to adapt processes to the client's behavior and needs.

The feedback from portfolio management can be used in building dedicated tools for the credit rating and scoring for the approval process with a high return in the ability to finance at lower costs and in the same time a higher market penetration.

Client's behavior management for microfinance segment is complex, developing expertise in this area is essential for portfolio management quality.

Figure 1. Summary Regression Output for Small Business Portfolio PAR30

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.96					
R Square	0.92					
Adjusted R Square	0.88					
Standard Error	128,576.92					
Observations	36					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	12	4.35587E+12	3.63E+11	21.95674	8.99654E-10	
Residual	23	3.80237E+11	1.65E+10			
Total	35	4.73611E+12				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	2,128,295.38	90,917.61	23.41	0.00	1,940,217.97	2,316,372.78
Period	29,222.54	2,187.14	13.36	0.00	24,698.10	33,746.98
Jan	617,981.13	107,704.04	5.74	0.00	395,178.34	840,783.92
Feb	579,800.74	107,236.68	5.41	0.00	357,964.76	801,636.72
Mar	303,471.01	106,812.07	2.84	0.01	82,513.41	524,428.61
Apr	567,230.49	106,430.72	5.33	0.00	347,061.78	787,399.20
May	785,576.87	106,093.09	7.40	0.00	566,106.59	1,005,047.15
Jun	393,108.61	105,799.61	3.72	0.00	174,245.45	611,971.78
Jul	580,996.20	105,550.64	5.50	0.00	362,648.06	799,344.34
Aug	766,034.99	105,346.50	7.27	0.00	548,109.14	983,960.83
Sep	301,183.72	105,187.46	2.86	0.01	83,586.89	518,780.55
Oct	633,452.11	105,073.70	6.03	0.00	416,090.59	850,813.62
Nov	466,101.17	105,005.39	4.44	0.00	248,880.97	683,321.38

Note: some values in the table were rounded to 2 decimal digits.

Figure 2. PAR30 Small Business: Forecast vs Actual

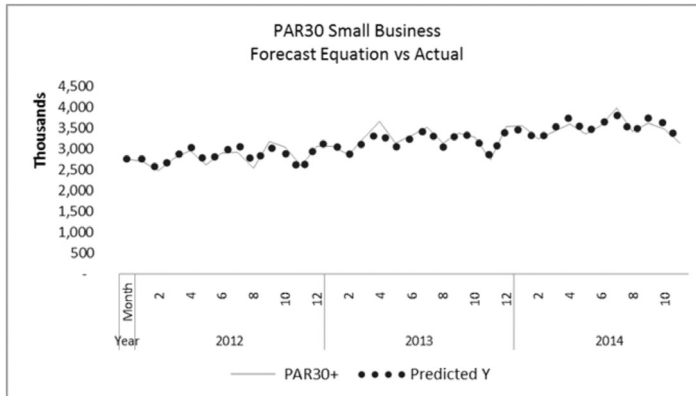


Figure 3: Summary Regression Output for Agricultural Producers Portfolio PAR30

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.91					
R Square	0.83					
Adjusted R Square	0.82					
Standard Error	64,657.36					
Observations	36					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	6.868E+11	6.87E+11	164.2906	1.42034E-14	
Residual	34	1.421E+11	4.18E+09			
Total	35	8.29E+11				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	249,914.11	22,009.45	11.35	0.00	205,185.53	294,642.69
Period	13,296.24	1,037.34	12.82	0.00	11,188.11	15,404.38

Note: some values in the table were rounded to 2 decimal digits.

Figure 4. PAR30 Agricultural Producers: Forecast vs Actual

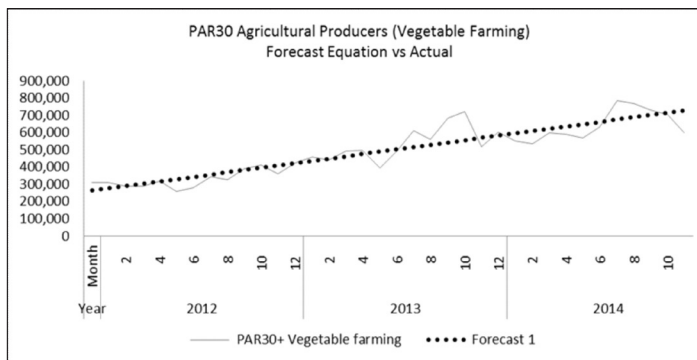


Figure 5. Small Business Portfolio PAR30 (Euro) trend actual vs. forecast regression equation 5 month (Jan-May 2015)

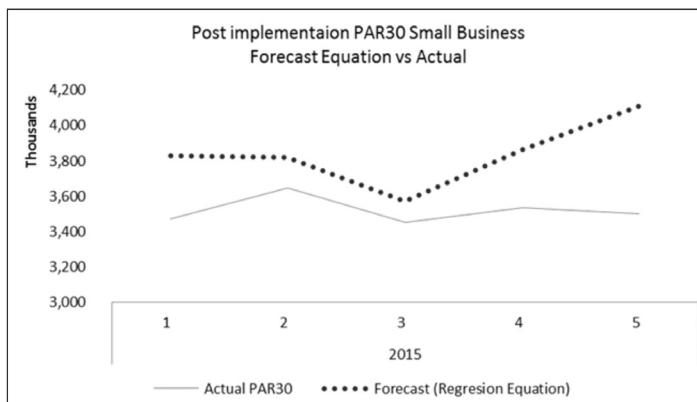
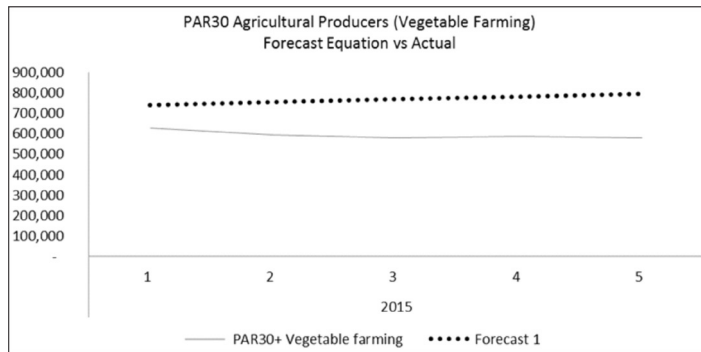


Figure 6. Agricultural Produces Portfolio (vegetable small farms) trend actual vs. forecast regression equation 5 month (Jan-May 2015)



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BUILDING TRANSFORMATIONAL LEADERSHIP COMPETENCIES IN THE PUBLIC SECTOR TO SECURE QUALITY SERVICE

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Abstract: *The paper researches in the area of building the transformational leadership competency profile that people from the public administration sector need to activate in order to deliver a quality service to the public. The paper continues the author's research on transformational leadership competency profile for people involved in operations and service delivery. The focus switches from operations managers activating on the Romanian market in various private businesses and industries to civil servants in central public administration organizations.*

Keywords: *Transformational and Transactional Leadership; Public Administration; Public Service; Training and Development; Competency*

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

*Motto: Living is the art of loving. Loving is the art of caring. Caring is the art of sharing.
Sharing is the art of living. If you want to lift yourself up, lift up someone else.
Booker T. Washington*

MANAGING SERVICES IN PUBLIC ADMINISTRATION

Customers, clients, citizens, subjects... While the first two are very much employed in business, with the firm dedication to deliver service to them, the last two are relevantly applicable to the public sector, public administration specifically. We all have rights as citizens but also obligations as subjects – subjects of our governments. Mintzberg asserts that as customers and citizens we enter a two-way relationship with government. The government's customers, while they are the citizens, receive services e.g. from the public infrastructure: social infrastructure (museums, theaters, schools and universities), physical (hospitals, roads, ports), economic (monetary policy, other regulations), mediation instances (civil courts), international footfall (embassies and consular services), support infrastructure (organizing elections) etc. (Mintzberg; 1996) Government can learn from business no less than business learn from government. People in the public sector cope with their problems: multiple stakeholders, intense political pressure, conflicting objectives, complex problem solving, need for substantiated decision making, effects of influence and reputation of their organizations to the entire public. Kanter asserts that private companies at their turn need to view community needs and collaboration with public administration bodies as corporate social opportunities to develop ideas, serve new markets, and solve complex business problems. (Kanter; 1999)

The operations managers in business units 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) Ostroff says 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 four stumbling blocks: (Ostroff; 2006)

- leaders of governmental bodies are not ordinarily chosen because of their commitment to make reform pervasive or because they have an outstanding track record in leading change efforts – rather they are appointed on the basis of their command of policy, technical expertise or political connections;
- while leaders are appointed for a limited amount of time to see a change effort paying off, the public servants in their teams are employed for an undetermined period of time¹; theoretically both organization layer public employees would need first to join forces to rapidly enact policy reforms as well as pursue for organizational facelifts;

¹ As per the relevant Romanian legislation on public servants, currently

- third, rules governing such areas as procurement, personnel, budgeting, and legal department, originally adopted to prevent public-sector wrongdoings, have created jobs less flexible than those in private sector - it is recognized that penalties for failure are likely to be much more consistent than the rewards for exceptional performance;
- the activities and actions of public servants and public-sector leaders are subject to public scrutiny, therefore disapproval and dissatisfaction may occur rather sooner than later, even though it could be a minor determining reason.

Three key drivers are highly influencing the success of the public-sector change efforts in order to deliver quality public service:

One: Be a leader, not a bureaucrat

Public-sector organizations aren't 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) The public-sector employees led by their leaders must 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 public agency's 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 further develop people where needed. The public servants need 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.

Two: Build winning relations with stakeholders

Whereas leaders and employees in the private business sector must please 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. (Ostroff; 2006) An important note must be made in respect to the public employees – they know a lot about how their organizations run and where they falter. By actively relying upon their operational knowledge, leaders lay the intellectual base for any change effort by gaining the employee support needed for change readiness and success. Moreover, since many public agencies' leaders are political appointees, they need to convince their stakeholders of their sincerity and commitment to improving performance against mission of serving citizens and taxpayers.

Three: Secure evidence-based decision making and regulation design

Evidence-based decision-making is an integral part of the approaches to enhance predictability, improve effectiveness, minimize unintended consequences and, ultimately, increase 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. 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. 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.

European recommendations on best practices are clear in respect to the governmental and public policy development and regulation design based on Regulatory Impact Assessment (RIA). "RIA aims to be both a tool and a decision process for informing political decision makers on whether and how to regulate to achieve public policy goals. As a tool supporting decision making, RIA systematically examines the potential impacts of government actions by asking questions about the costs and benefits; how effective will the action be achieving its policy goals; and, whether there are superior alternative approaches available to governments. As a decision process, RIA is integrated with systems for consultation, policy development and rule making within government in order to communicate information *ex ante* about the expected effects of regulatory proposals at a time and in a form that can be used by decision makers, and also *ex post* to assist governments to evaluate existing regulations."² Impact assessment is a set of logical steps to be followed when you prepare policy proposals. It is a process that prepares evidence for political decision-makers on the advantages and disadvantages of possible policy options by assessing their potential impacts.³ The benefits from using RIA emerge from the requirement that decisions are to be taken with much stronger rigor and through a more accountable and transparent process. The systematic process of questioning at the beginning of the policy cycle facilitates reflection on how to structure the policy-making process; identify cause-effect links and likely impacts; select and compare policy options; and consider unintended or unexpected consequences. This helps reducing the risk of regulatory failures.

RIA allows for a client-oriented decision-making process. If properly integrated with public consultation and if published in a timely and systematic way, RIAs empower economic operators and citizens and respond to their right to know the reasons for policy and regulatory choices. Three immediate consequences flow from this: a more stable recognition and generalized acceptance of the performance of policy-makers; greater trust in public authorities; and higher compliance rates with regulation. RIA facilitates coordination between different public policies, with an aim of highlighting trade-offs and identifying synergies, securing greater policy coherence and make sectoral approaches to penetrate at citizens' level.

Typically, fully-fledged RIA analyses as processes should entail: identification and definition of the problem; spelling out of the desired objective(s); elaboration of the different regulatory options (including the 'no action' option); open and public consultation with external stakeholders and experts; assessment of the likely costs, benefits and effects (wherever possible in quantitative terms); recommendation of the preferred option; and indications on the monitoring, evaluation and reporting requirements.

TRANSACTIONAL AND TRANSFORMATIONAL LEADERSHIP

Leadership is the ability of using a no coercive influence to direct and coordinate the activities of group members toward goal accomplishment. (Zorlențan, Mincu; 2006) Martin has cited Burns and then Kuhnert and Lewis who were suggesting in 1978 and 1987 respectively, that there are two types of management activity (Martin; 2005): transactional – that includes the allocation of work, making routine or repetitive decisions, monitoring performance and interacting with other organization units –, and transformational that is about possessing personal abilities in terms of recognizing need for change and designing adequate course of action to cope with change. Also Robbins and Judge cited Bass who identified in 1990 the characteristics of both types of leader (Exhibit 1) suggesting that transactional leadership represents rather a restrainer to change, fostering a climate of mediocrity (Robbins, Judge; 2010). Yet, they are highly efficient in organizations that may manufacture, and/or sell a relatively stable product portfolio, with stable methods and technologies over time. These kinds of leaders guide or motivate their followers to achieve the established goals by clarifying role and task requirements via daily exchanges with their subordinates in the areas of reward allocation, monitoring deviations from rules and standards and taking corrective action, as well as providing the direction and support for task achievement. (Schermerhorn; 1996; Schermerhorn, Hunt, Osborn; 1995) By contrast, the transformational leaders are catalysts of change, take charge as change agents, are audacious in risk taking, believe in team members, do the utmost to

² OECD, (2009). *Regulatory Impact Analysis. A Tool for Policy Coherence*, OECD Publishing, Paris, p.12

³ European Commission, (2009). *Impact Assessment Guidelines*, SEC(2009) 92 of 15 January, p.4

empower others, are able to dream and share it with others. Transformational leadership makes bold, unexpected and innovative moves to adapt organization effectively to the dynamic and turbulent environment. In this endeavor, they may alter the management methods and processes to serve the customers, the product and service portfolio and technologies. (Robbins, Judge; 2010) They earn the trust of followers, build confidence among their team members by helping them increase their competence and performance, while giving freedom to take initiative, hence achieving higher acceptance of objectives among subordinates. Transformational leaders play a role model for their people and inspire them to perform above and beyond the call of duty. (Kreitner; 1995) Most leaders are required to engage in both transactional and transformational leadership as part of their responsibilities, with the best being *both* transactional *and* transformational. (Robbins, Judge; 2010) For leaders in general, this allows a flexible style of managing – from micromanagement to delegation and empowerment (Mincu; 2013) –, with the manager sometimes giving firm directions in order to ensure that the operations output conforms to customer expectations, while at other times stepping back and allowing team members to take decisions. The author asserts that this flexible style is applicable to the public-sector organization, including the public administration, when referring to providing public service to citizens.

BECOMING A “LEADERSHIP-COMPETENT” PUBLIC SERVANT FOR A QUALITY PUBLIC SERVICE

The next data and findings represent the result of a research and consulting project carried out from 2012 to 2015 that has encompassed over 150 senior public servants, leaders and experts from central 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. The project has aimed to evaluate the level of capacity development and subsequently, identify the leadership competencies that need further development so that the public administration's employee base would be able to cope well with the requirements of a high quality public service.

The evaluation has employed an instrument⁴ based on a set of 50 competencies adapted for the specifics of public-sector environment, and applied in the organizations consulted similarly to the evaluations carried out by the author for private business units. (Mincu; 2013) Being “leadership competent” in the understanding of the instrument was to possess, put to work and give visibility to three facets of a competency: knowledge, skills, and attitude. The following competencies need to three-fold i.e., knowledge-skills-attitude, equip public service positions as core part of a successful leadership profile:

- Possessing competencies such as “process management” and “informing”, as well as “customer/public focus”, “evidence-based decision making”, “interpretation of analysis outcomes” – describing an active management by exception and contingent reward.

These prompt the expectation towards the incumbents of public service positions to act as effective transactional leaders.

- Individualized consideration through competencies of “developing people”, and “strive for high performance”; intellectual stimulation through “effective problem solving”, “knowledge of regulatory theory”, and “priority and time management”; inspirational motivation through “motivating people”, “dealing with change, risk and uncertainty”, “creativity and innovation”, and “collaborative relationships”; idealized influence through “influencing with a political savvy attitude”, “ethical and authentic” and “building team spirit”.

The expectation of the public organization is that the public servant would turn into an effective and active transformational leader.

The following trends of competency development needs were noticed (Exhibit 2):

- well developed competencies such as “ethical and authentic”, “creativity and innovation”, “social

⁴ 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>

science acumen", and "collaborative relationships" would certainly leverage the development of under-developed competencies;

- three essential competencies equipping an effective transactional leadership would need significant development intervention: "evidence-based decision making", "interpretation of analysis outcomes", and "informing";
- the majority of the competencies describing an effective and active transformational leadership would need massive progress and development: "influencing with a political savvy attitude", "building team spirit", "motivating people", "dealing with change, risk and uncertainty", "effective problem solving", "knowledge of regulatory theory", and "developing people".

Following the diagnosis of the developmental needs for the public servants, leaders and experts, activities have been recommended and carried-out within a one-year people plan that has included:

- Specialized training and development courses aiming (a) to improve capacity to conduct evidence-based analysis and help public officials to design substantive and evidence-based regulatory proposals according to the principles of good regulation; (b) to help public staff in managerial roles to effectively lead, motivate and manage their people and departments; and (c) to help public servants to effectively manage change and increase personal contribution to team performance.
- Other types of resources and mechanisms can also enable transformational roles for the public staff such as (d) study tours and workshops to help share experience between stakeholder Romanian institutions and other European counterparts; (e) awareness-raising activities regarding the public institution's mission; (f) information sessions for all institutions with legislative and impact assessment roles or changes to the existing system; (g) coaching programs; (h) on-the-job training and rotation through developmental assignments. These measures could constitute substantial improvements that can help to increase staff productivity and performance quality.

CONCLUSIONS

Activating a complex set of competencies can make the public servants perform the transition from doers to enablers, from transactional to transformational leaders.

The research in several public administration organizations in Romania has revealed that public servants are only partially possessing transactional leadership competencies – those are not offering enough agility to mitigate the quality public is requiring nowadays. The public staff in Romania will still have to complete the complex development journey to build the necessary transformational leadership competencies – the Romanian public is looking forward to this.

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Exhibit 1 – Leadership momentum (Robbins, Judge; 2010)

The most effective and active

Transformational leader:

Idealized influence	Provides vision and sense of mission, instills pride, gains respect and trust
Inspirational motivation	Communicates high expectations, uses symbols to focus efforts, expresses important purposes in simple ways
Intellectual stimulation	Promotes intelligence, rationality, and careful problem solving
Individualized consideration	Gives personal attention, treats each employee individually, coaches, advises

Transactional leader:

Contingent reward	Contracts exchange of rewards for effort, promises rewards for good performance, recognizes accomplishments
Management by exception (active)	Watches and searches for deviations from rules and standards, takes corrective action
Management by exception (passive)	Intervenes only if standards are not met
Laissez-faire	Abdicates responsibilities, avoids making decisions

Ineffective and passive

Source: (Bass; 1990)

Exhibit 2 – Leadership competency development for public-sector employees

Essential competencies for public service positions	Public servants, leaders, and experts
Influencing with political savvy attitude	80% to develop
Ethical and authentic	5% to develop
Building team spirit	50% to develop
Motivating people	60% to develop
Dealing with change, risk and uncertainty	80% to develop
Creativity and innovation	20% to develop
Collaborative relationships	25% to develop
Effective problem solving	60% to develop
Knowledge of regulatory theory	60% to develop
Priority and time management	30% to develop
Developing people	50% to develop
Strive for high performance	30% to develop
Customer/Public focus	30% to develop
Evidence-based decision making	70% to develop
Interpretation of analysis outcomes	70% to develop
Social science acumen	20% to develop
Informing	50% to develop
Public service management	40% to develop

MASTERING THE THREE CHALLENGES OF INNOVATION: THE RARE SOURCES OF RELIABLE HELP

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Abstract: *As business corporations across industries confront increasing global competition and technological change, along with increasing pressures of commoditization and margin compression, senior executives and managers face increasing pressures to grow through innovation. In this paper, we outline the three challenges that every executive and manager faces in trying to innovate. If they are to succeed in innovating, they will need to identify and use reliable help. Noting that the academic and practitioner literature on innovation is both vast and confusing, executives and managers need access to reliable help. Only two theories of innovation achieve the level of reliability that is required by the challenges inherent to the innovation process. These theories also complement each other well. Used in conjunction with each other, they provide ample, reliable help with the three challenges of innovation. This paper briefly explains each of these theories, and discusses what they can reliably be used for and why.*

Keywords: *Innovation; Disruptive Innovation; Sustaining Innovation, Competing Values Framework; theory building; descriptive theory; prescriptive theory; normative theory*

JEL Codes: L26, M10, O30, O31, O32, O33

INTRODUCTION: THE THREE CHALLENGES OF INNOVATION

Every senior executive or manager seeking to grow the firm through innovation faces three challenges. The first innovation challenge is the problem of diagnosing what kind of innovation the firm needs to pursue. To diagnose something requires the ability to distinguish the nature and causes of that thing from other things. Like doctors making differential diagnoses of a patient's presenting symptoms and lab results, senior executives and managers must distinguish their particular innovation challenge or challenges from other business symptoms and results that present with similar features. If they get the innovation diagnosis wrong, then executives and managers have little chance of succeeding with their innovations. We call this the Diagnostic Challenge.

The second and third challenges of innovation flow directly from the first. Once executives or managers have diagnosed their innovation challenge, they need to know what to do about it and what risks and rewards they can expect as they go about innovating. We call the former the Intervention Challenge and the latter, the Reward Challenge.

We chose the term Intervention Challenge with its precise meaning in mind. To intervene means "to come between" (Webster's collegiate dictionary, 1965). When we intervene, we are always coming between two or more things that are already in relation to each other. Applied to business, this implies that innovation interventions are always made into the complex relationships that already exist between the firm and its markets for creating, delivering and capturing value. To intervene into those value-creating, delivering, and capturing relationships with the aim of creating, capturing, and delivering new or different value is, by definition, "to enter or appear as an irrelevant or extraneous feature or circumstance" (Webster's collegiate dictionary, 1965).

People and systems do not easily interpret or accept innovation interventions because such actions, by necessity, disrupt the way the company is currently going about its business. Like the doctors of patients who

have been diagnosed with serious illnesses caused by lifestyle behaviors such as consuming tobacco, alcohol, or fatty foods, executives and managers must enter into the complex relationships that have generated the patient's illness and change them. The more dramatic the changes required to create health in the patient's body and lifestyle systems, the more difficult the doctor's job. So, too, with executives and managers – the more dramatic the changes required to create, deliver, and capture new value, the more difficult their job. Reliable help in meeting the Intervention Challenge will also go a long way toward making innovation initiatives successful.

No executive or manager would undertake the difficulties and risks that attend innovation interventions if they were not convinced that the reward would be worth it. The Reward Challenge requires managers to assess the risks and rewards of their specific innovation interventions as accurately as possible. The less that is known about the potential risks and rewards, the greater the challenge, because established firms assess their risks and rewards on the basis of exposed information. When it comes to innovation, however, there is no exposed information. There is no data on value that is currently not being created, delivered, or captured, only emergent trends and patterns.

Assessing the future-oriented risks and rewards of innovation interventions challenges even the most sophisticated executives and managers. Those seeking to get their innovation funded are challenged to meet hurdle rates and funding requirements as they compete with other projects for the allocation of scarce resources. Executives and managers who make those resource allocation decisions are similarly challenged. How can they reliably assess the apples of standard budget requests to the oranges of innovation requests? Reliable help in meeting the Reward Challenge of innovation would go a long way toward making funding seekers and funding makers mutually successful.

Executives and managers who turn for help to the academic and practitioner literatures on business innovation will be sorely disappointed. They will find a vast collection of literature containing a confusing array of theories, models, frameworks, terms, and typologies. For example, a Google search for “business innovation” returned 18.6 million results and an identical search on Google Scholar returned 2.86 million results, while the same search on Amazon Books returned 24,731 results. Not only is the literature vast and diverse, it is nearly impossible to determine which of the theories are superior or more relevant than others. Finding reliable help in facing the three challenges of innovation is a difficult task in its own right.

We regard this confusing state of affairs as both lamentable and avoidable. To clear up the confusion, we will clarify which theories of innovation are valid and can be relied upon by executives and managers to guide them in tackling the Diagnostic, Intervention, and Reward Challenges of innovation. We begin by clarifying what it is that makes a theory, model, framework or typology valid and reliable. We will argue that there are two distinct levels of valid and reliable theory, descriptive theory and prescriptive (or normative) theory. We will argue that only prescriptive theory can be fully relied upon to meet the three challenges of innovation. We then argue that only two theories of innovation fulfill the requirements for prescriptive validity. After briefly describing those theories and what makes their reliability superior to other theories, we conclude with a brief reflection on how astonishing these accomplishments are and, therefore, how valuable they can be to executives and managers as they seek to master the challenges of innovation.

I. INNOVATION THEORY: TWO LEVELS OF RELIABILITY

Assessing the reliability of theories, models, and frameworks of innovation is a complex judgment. We base our assessment of reliability and our categorization of two levels of reliability on a widely shared distinction within theory building and validation, namely, the distinction between descriptive and prescriptive theory (Bazerman 2005).

All reliable theories, models, frameworks, and typologies of innovation are byproducts of researchers' attempts to build theories that either describe or explain the behavior of specific phenomena related to innovation. Typically, researchers either study the attributes and circumstances that logically or causally precede innovation outcomes, or study the behaviors that lead to or cause innovation outcomes. The reliability of these theories about the antecedents and behaviors that lead to innovation are a function of their validity. Do the theories and models of

innovation, and the frameworks and typologies they contain, validly describe or explain the innovation outcomes they claim to describe or explain?

Validated descriptive theories use rigorous research methods to test hypotheses that are capable of being disconfirmed. The more rigorous the research and testing methods employed, the more reliably the theory will describe the innovation outcomes it examines, in large part because researchers from other disciplines and perspectives have been able to test the theory from different points of view. As researchers from diverse disciplines such as marketing, finance, and operations test the theory, they rule out the possibility that there might be other, more plausible explanations for the claims made by the theory or model of innovation.

Business innovation, like other fields of business and management, contains a large number of validated descriptive theories and models. Each can legitimately claim to describe the patterns and relationships among the variables that it categorizes. But none of them can claim that their models are superior to other models because describing a pattern is not the same as explaining it. Descriptive theories rely on statistically significant correlations between variables. Correlation, however, does not prove causation. Well-documented problems of inferring causation from statistical correlation, such as Simpson's Paradox, reveal that even establishing the direction of causality between two correlated variables cannot be proved because simply adding on an additional variable can reverse the inferred direction. A descriptive theory of innovation cannot reliably claim to know what causes what in innovation. It cannot claim prescriptive reliability.

To prove that one's theory or model is superior, one has to identify and explain the mechanisms that cause the innovation outcomes as well as the boundary conditions under which those mechanisms operate. Proving causation requires extensive field research, experimental testing, and external validation (historical and concurrent). Field research is essential because its methods alone enable researchers to observe real cases, form hypotheses about what the causal mechanisms are, and catalog the boundary conditions under which they operate. Experimental testing is necessary for establishing that the causal mechanisms do in fact account for the outcomes that the theory claims to explain. Proving that the theory generalizes from its original area of proof into other areas or industries can only be accomplished by external validation of the theory in new contexts. Of course, it is impossible to test every context and industry and, therefore, it is impossible to establish conclusive proof via external validation. Nonetheless, such validation does add to the evidence that the theory is prescriptive and can be relied upon.

In short, only a prescriptive theory can legitimately claim to explain innovation. It alone can be relied upon to provide the highest available, trustworthy guidance for the Diagnostic, Intervention, and Reward Challenges of innovation.

In our judgment, there is only one theory of innovation that meets all the requirements of prescriptive theory, namely, Clayton Christensen's theory of Disruptive Innovation (Christensen 1997). A second theory of Innovation, the Competing Values Theory, partially fulfills the requirements for prescriptive validity (Cameron et al., 2006; DeGraff & Quinn, 2007). It has been descriptively validated by a large number of studies that cross a wide range of disciplines, industries and conditions and has identified numerous causal mechanisms and conditions. It has not, however, fully validated that those causal mechanisms and boundary conditions explain the innovation outcomes. In other words, its prescriptive validation is not as mature as Christensen's theory of Disruptive Innovation. We decided to include it, however, because the prescriptions it makes entirely agree with and flesh out the prescriptions made by the theory Disruptive Innovation. In this sense, the Competing Values Framework functions as a powerful complement to and supplement for the Theory of Disruptive Innovation. We personally use both theories in conjunction with each other all the time.

II. PRESCRIPTIVELY RELIABLE HELP: CHRISTENSEN'S THEORY OF DISRUPTIVE INNOVATION

Christensen's theory of Disruptive Innovation emerged out of his attempts to build a more adequate theory of innovation by resolving the problems that other researchers had identified in testing previous theories. For example, one of those theories held that established companies tend to handle incremental technological innovation well, but fail when faced with radical technology change. The theory of radical vs. incremental innovation, however, did

not fit the pattern of the historical data. Some established companies successfully adopted radical innovation. To resolve this anomaly, Christensen went back to the data and created new constructs and frameworks that not only accounted for everything that old theories had explained, but also accounted for the anomalies that those theories could not account for. Then he tested those constructs and frameworks. The result was his theory of Disruptive Innovation and Sustaining Innovation.

Christensen's original theory of Disruptive Innovation focused on the technological innovations at the low end of the industry's price-for-performance and quality continuum, i.e., innovations that industry-leading firms did not adopt, only to lose their competitive advantage eventually to firms that did adopt the technological innovation. Christensen's theory described these technological innovations and how their trajectory of steady improvement eventually came to adequately service the needs of the middle market while the "sustaining" innovations of established firms either incrementally or radically overshot the needs of this market. Hence, the "innovator's dilemma" facing all established firms: pursue innovation today that sustains their most demanding and profitable customers, or pursue innovations of lower price and quality for the less profitable and less demanding customers of tomorrow?

Having proved the validity of his descriptions, Christensen created a reliable theory of innovation. Most researchers would have stopped there, but Christensen pushed his theory building one step further. He started looking for the causal mechanisms and conditions that would explain what caused the innovation results he had described (Christensen 2006).

As the theory of Disruptive Innovation and its causal mechanisms were elaborated, tested, and refined in order to account for observed anomalies, and as researchers applied it to more and more industries, more and more of circumstances under which the causal mechanism operate were tested and validated. This improved the theory's models, frameworks, and typologies by making them more predictive and more prescriptive.

What Christensen discovered and proved was that the mechanisms by which disruption occurs are not just a function of the technology, but, rather, a function of the business model and profit logic that companies deploy the technology within. Therefore, the decisions and actions available to executives and managers with regard to disruptive technology were discovered to be much broader than a simple adopt/do not adopt decision. Executives and managers have a range of options from which to choose and act upon, such as whether or not to set up an autonomous business unit, what kinds of organizational structure to set up within innovation units, what kinds of people to staff the unit or organization with, what kinds of resource selection and allocation processes to use, and what kinds of value propositions, market segments, and cost structures to design.

The extensive elaboration and validation of the causal mechanisms and the business circumstances under which they operate confers the theory of Disruptive Innovation with prescriptive reliability. Executives who use its models, frameworks, and typologies can do so with the confidence that their diagnoses and interventions have causal backing.

For example, consider Christensen's "Framework for Finding the Right Organizational Structure and Home," which defines four different types of innovation and the corresponding four types of innovation challenge (Christensen & Raynor 2003).

1. Breakthrough technological innovation that sustains and extends the company's established business model (Breakthrough Sustaining Innovation)
2. Incremental technological innovation that sustains the company's established business model. (Incremental Sustaining Innovation)
3. Down-market innovations that require new, low price and low overhead business models. (Down-Market Disruptive Innovation)
4. Breakthrough technological innovation that requires an entirely new business model. (Breakthrough Disruptive Innovation)

By elaborating the causal mechanisms of innovation and diagnostic circumstances under which these four types of innovation operate, Christensen typology provides clear diagnostic criteria and intervention strategies (Christensen, Scott & Roth 2004). Like any diagnostic category, these innovation categories cannot do the

thinking for the executives and managers, but, without validated diagnostic categories and criteria like these, accurate diagnosis and effective intervention are impossible.

Furthermore, because the model has accounted for the financial success and failure, both historically and prescriptively, of thousands of innovations by hundreds of firms across dozens of industries, the theory of Disruptive Innovation provides prescriptive help with the Reward Challenge of seeking funding and allocating funds for innovation (Christensen 2006). For example, in a well-documented case, Andy Grove of Intel used the theory of Disruptive Innovation to identify the threat posed by Intel's potential overshooting of the processor speeds that the mass market would be able to use (Puffer 1999). He also identified low-end new processors that posed disruptive threats to Intel. Informed by the theory of Disruptive Innovation, he established an autonomous business unit to compete among the rapidly improving, low end of the processor market. This resulted in the development of the Celeron processor, which became Intel's highest volume processor and accounted for tens of billions of dollars in sales. Similar diagnoses and interventions have reaped similar rewards for organizations like Apple, Kodak, and Teradyne (Christensen 2006).

III. NEARLY PRESCRIPTIVE, RELIABLE HELP: THE COMPETING VALUES THEORY OF INNOVATION

The second of our reliable theories of innovation, the Competing Values Theory, was originally developed by researchers in order to unpack and make better sense of the ubiquitous construct of "effectiveness" (Quinn & Rohrbaugh 1983). Almost every organizational theory is concerned with generating "effective" outcomes, but there was no agreement among researchers about what criteria determine whether an outcome is "effective" or not. To clarify the construct of effectiveness and resolve these conflicting criteria, researchers used a replicable research method to identify the axes, or dimensions, along which different criteria for "effectiveness" could be ranged.

Three dimensions to the concept of effectiveness were identified: 1) focus, that is, criteria ranged along a continuum from an internal and person-focused criteria to external and impersonal focused criteria; 2) structure, that is, criteria ranged along a continuum of those criteria concerned with flexibility and change to criteria concerned with stability and control; and 3) process-outcome, that is, criteria ranged along a continuum of those criteria having to do with process to criteria having to do with outcomes.

Working these constructs up into an organizing framework that could account for the statistical findings, the researchers determined that the first two axes, focus and structure, captured the full range of the data. Arranged as an orthogonal framework, the two axes generated four distinct models for the effectiveness of organizations.

1. Internal processes model – stability and control (structure), internal (focus)
2. Rational goals model – stability and control (structure), external (focus)
3. Human relations model – flexibility and change (structure), internal (focus)
4. Open systems model – flexibility and change (structure), external (focus)

In confirmation of their framework, the researchers noted two sources of corroborating evidence. First, they noted that the Competing Values Framework's four distinct models described the four functional prerequisites for organizations described by Talcott Parsons some two decades earlier (Parsons 1959). As further confirmation, they also noted, each of the four models described one of the four dominant "schools" of organizational analysis. The resulting framework, therefore, made sense of the conflicting criteria that researchers had developed to determine what organizational effectiveness meant. Researchers were disagreeing because they were using competing criteria, or values, for determining effectiveness. Hence, the name Competing Values Framework, as it empirically validated the tensions and conflicts between criteria for effectiveness, that is, values.

To validate their theory, researchers studied whether there was a statistically significant correlation between the variables of the Competing Values Framework and cross-sectional variations in the market-value-to-book-value ratios of over 3,000 publicly traded companies (Cameron et al. 2006). What they discovered was that the stock market positively rewards innovation and that the degree of that reward varies by industry. The reward that executives and managers can expect varies according to their industry and where their innovation performance stands vis-à-vis their industry competitors.

Using the current performance indicators, researchers were able to predict 84% of the variance between a firm's market value and its book value. For example, the researchers discuss the innovation performance of Hewlett Packard in 2000. Compared to its industry, HP's innovation performance fell below the industry's average. By benchmarking HP's performance relative to the industry, researchers calculated that if the company were to improve its innovation performance by one full standard deviation, as compared to its rivals, its stock market value would increase by \$12.78 billion dollars! (Cameron et al. 2006)

The Competing Values Framework model has been validated across numerous additional studies by researchers representing a variety of business disciplines, from human resources to operations, finance, and research and development (Wu & Nu 2009). Whereas Christensen's theory was able to achieve prescriptive validity by focusing on explaining the causal mechanisms and conditions surrounding technological innovation alone, the Competing Values Framework aims to cover the entire range of innovations that firms pursue and so has not been able to identify, test, and validate specific one causal mechanisms and boundary conditions for the theory as a whole (DeGraff & Quinn 2007). Instead, it relies – for its progress toward prescriptive validation – upon the prescriptive validation of theories within each of the four quadrants of value creation.

For example, because the focus, priorities, people, and processes germane to the internal controls model of value creation are opposite to those of the open-systems model, it is not likely to be easy, or even possible, to find one set of causal mechanisms that explains the outcomes in both types of value creation. Internal control models create value by wringing out randomness, variation, risk, and error, while the open systems model creates value by exploring and exploiting randomness, variation, risk, and error. So, whereas a prescriptively valid theory of process control, such as Six Sigma, can be expected and striven for, such a theory cannot and, by definition would not, be able to prescriptively explain the positive, non-linear dynamics of open systems theory (Thakor 2011).

Thus, what the Competing Value Theory lacks in terms of the depth of its explanatory power, it makes up for in the breadth of its diagnostic and intervention guidance. The Competing Values Framework's comprehensive diagnostic categories enable executives and managers to diagnose and intervene with precision. Using the Competing Values Framework's validated measurement assessments, an executive or manager can use the Competing Values diagnostic categories and intervention strategies to define the type or types of value that that his or her organization is currently creating, delivering, and capturing, and to define what kind of value the firm ought to be innovating. Combined with Christensen's diagnostic categories, these tools combine to provide the highest level of reliability available.

The Competing Values assessments also enable managers to break down the specific innovation focus of every relevant unit: department, team and individual. By giving managers the ability to define the types of innovation occurring at every level inside the organization, from business units all the way to individuals, the Competing Values Framework provides unparalleled clarity and prescriptive specificity. In using the Competing Values Framework, we are constantly struck by the nearly total agreement between Christensen's prescriptively validated diagnostic categories and frameworks, such as his "Resources, People and Values" framework and the Competing Values Framework's Purpose, Practice, People frameworks. We assume that as the Competing Values Theory continues to elaborate and validate the causal mechanisms and boundary conditions, it too will one day achieve the prescriptive reliability attained by Christensen's theory.

CONCLUSIONS

On the one hand, our search for reliable theories of innovation to assist executives and managers as they resolve the Diagnostic, Intervention, and Reward challenges of innovation could appear discouraging. After all, we were only able to produce two reliable theories. On the other hand, the fact that management studies have produced even one prescriptively reliable theory of innovation is an astonishing achievement. Prescriptively reliable theories about things that already exist, such as we find in the natural and medical sciences, are difficult to establish and uncommon. A prescriptively reliable theory about things that do not yet exist, such as produced by Christensen and the community of innovation researchers, is exceedingly difficult and unique (Christensen, Scott & Roth 2004). All of this simply underscores that the Diagnostic, Intervention, and Reward challenges

of innovation, which executives and managers face every day, might be the most difficult challenges in all of business. They need all the reliable help they can get.

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CHALLENGES OVER ECONOMICS AND MONETARY FUNDAMENTS?

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Abstract: *This paper work is inspired by the more and more challenges to the theory of economics and practice in the last decades, challenges subject of both technological fast changes process, especially within IT&C, and the globalization trend as well as actually the opposite of globalization, re-birth of nationalism in more and more areas of the World, including the "Old Europe" and Middle East, Close East, migration phenomenon and the terrorism. These changes generates things happening that can challenge the status quo, long term settlements, either within the monetary world, where the invention of virtual money could revolutionize the entire international monetary system and financial institutions, as well as the business world, where we need to look more seriously to re-modeling algorithm of risks and assets, business valuation wherever in the World.*

Keywords: *Challenge, crypto-currency, virtual currency, risk, valuation, valuation models, return, result, interest, terrorism risk, geo – politics, military, climate, biologically and environmental.*

The today's World, under the higher and higher speed, especially since the computer's evolving era and high performance servers and overall the internet (with Internet of things), seemed to get two directive vectors, vectors that generates the today's big challenges and – most probably – those who are to come.

One of the two vectors it might be an objective one, belonging to the organic permanent development of the human society and refers to the technological explosion of IT&C, explosion already subject of very much writing. However I'd like to underline here about the possible consequences of technological developments that might occur and – implicitly – over human and organizational behavior at corporate level and over the whole society in the science fundaments, as we once upon a time learned.

The other vector who show a direction, maybe a subjective one, although the sociologists and philosophers would amend me and would sustain there is also an objective one and I would not dare to disagree with them too much – there is not that relevant anyway – a vector who relates to the multiplication and sharply rising of risks, living and working risks, making successfully, profitable and long term sustainable businesses. The measurement and metrics of these risks, in order to manage and minimize them become more complex nowadays, that we need to look more and seriously to some fundaments and scientific axiom and their validity, even though it looked once upon a time forever truth.

THE CHALLENGE OF CRYPTO CURRENCIES

1. Relative to the first addressed directive vector, the objective one of the **accelerated technological progress** from the previous 20-25 years, the topic is so infinite, but I'd just like to focus on one main aspect, naming the great challenge over the financial and monetary world, after the emerging of the virtual currency Bitcoin and all other **crypto currencies** raised after 2009, currencies that may produce dramatic changes in the traditional and historical monetary system and over financial, monetary and foreign currency markets.

I don't propose to myself to analyze the subject called Bitcoin, already was done by many others, including my distinguished fellows of Institute, Prof. Dalina Dumitrescu and Prof. Oana Firica, in their paper called "A turbulent IT currency infant in the Global Business Environment" – see Proceedings, International Conference of the Institute for Business Administration in Bucharest, 7th edition, "The Digital Economy: Challenge or Growth Driver for SME and Corporations?" This paper also inspired me, making me thinking about what's next, about the following consequences and the changes that are to come, in a very probabilistic future and not too far at all.

This is truth, even though this virtual monetary creations was not initially taken too seriously – nor today

are they covering a critical mass of holders or having an important monetary valuable recognition – however they cannot be ignored and they are not, on the contrary! They count somewhere, sometimes, even though they are not legally recognized in too many countries yet.

What is anyway the main challenge of showing and using of these virtual currencies? What makes them attractive? Why people trust them, although they are not backed up by governments, states, who can guarantee them?

In the first row these currencies showed-up as an interesting exotic investment alternative versus all other existing alternatives on the market, beginning with a computer game and no valuable currencies. Once the virtual currency was recognized as such by a pizza seller, it gained a certain value, then raised quick to one American dollar and a lot over, over 1,000 USD, and then had a fluctuant evolution, not spectacular growing anymore, rather the opposite.

Without analysis of Bitcoin – because is not the scope of this paper – let's see what the virtual currencies already have and what don't have yet, in comparison with the real ones, and looking at the classic money functions:

- Payment instrument;
- Exchange instrument;
- Treasury mean;
- Metric of value.

Let's take one by one, starting with the fact that any currency, virtual or real, begin to work, to be recognized through trust and eventually disappear, after it's losing the value until zero, meaning no more value. It's not recognized by the market anymore.

First function met by the crypto currencies is that of *exchange instrument*, as long as more and more suppliers accepts them against their merchandises and services sold.

In the same time, the increase in its values accompanied by increasing their trust curve, due to the recognition of the above function, helped them to become *investment target* too, actually a new *treasury mean*, that generates investment return, even though this was just partially valid. However, this attribute was boosted also – in the Bitcoin case for instance – by the limited amount of initial issuance. Consequently, this limitation copied somehow the limited reserves of gold in the World, gold whose value then grows steadily in time. On the other side, the gold as precious metal has an intrinsic value, it has its own accumulated values, as Prof. Dumitrescu and Prof. Firica underlines in their material.

Or Bitcoin has just a conventional and very volatile value, a value whose spreading area and acceptance is extremely limited.

On continuation of this analysis, it is important to know that the soft who control these virtual currencies and their definition/functional protocol, both or any of it can change in time, as long as most of the participants and aligned people agreed upon. Thus it can finally happen an unlimited issuance of these currencies, but their highest test of surviving and recognition on a larger scale than today relates to maintain and enlarging trust. They need such as trust that confer them a relative stable value versus the other real currencies, but also the desire to become a *metric of value*.

Nowadays although it does exist a currency market of virtual currencies, by specialized sites that works like currency exchange offices of real money, it does exist ATMs where it can be done transactions between real currencies and Bitcoin for example, besides the birth of many other such as virtual currencies, after the Bitcoin birth in 2009, it seems that no other spectacular developments followed both from the enlarging their acceptance and geographic extension, nor about the one of replacement of real currencies in the World commercial and financial transactions. But things are not frozen, developing more probabilities of transition for *something else* as long as there appear more and more sophisticated and convincing digital currencies:

- The Dutch Central Bank is preparing an experiment to analyze whether financial market can be build and managed based on block chain technology (the one who created the crypto currency)¹;

¹ COINDESK.COM, CNBS News, BITCOINMAGAZINE.COM, ONECOIN.EU

- The Court of Justice of EU decided that the virtual currencies will be treated like the real currencies from the taxation point of view, meaning they will not carry VAT or any other tax at their transactions²;
- The European Commission is working to understand the technology behind the virtual currencies³;
- The OneCoin Currency was publicly accepted by the Islamic finance experts, as being the first foreign currency adequate with Muslim.⁴

In fact the Financial and Banking, The Institutional World is preparing for major changes in the monetary field, even though as long as the intrinsic value of digital currencies it is very volatile and still so limited in their acceptance area, circulating area, and not last, value recognition and trust. So, the limitation of their function of universal mean of exchange is affecting the other one of treasury instrument too, the saving and investment tool, not mentioning about those of payment instrument and metric of value anymore.

The fact that the exchange of products and services, their payments is done without a third party involved, a kind of clearing house with transactions register, meaning totally decentralized and without a subjective control by any other entity, could be on the other side, one of the great barrier of the new crypto monetary creations. The control of monetary aggregates on the monetary market, the sensitive balance between money supply and the corresponding quantity of products and services in any specific market, for pricing stability in every national currency, for inflation control and the right balance of financial and currency markets, loans and interest rates, the foreign balance of payments, fiscal and national accounting, are just several aspects of these new virtual currencies, that looks like they are not yet prepared.

However, as all analysts and specialists who did study this phenomenon are mentioning, this is a big start that can continue that way that can make dramatic changes in a not too far future over the monetary theory and practice, with all its consequences over financial and currency markets, budgets, banking, fiscally, accounting, economics and social. We lived with a technological boom, that will continue, even though not always with the same intensity. That's why it is impossible to forecast on how the World it will look like in the following years, as said also Dan Bulucea, former Country Manager of Google Romania and ASEBUSS graduate, at an exciting presentation made in front of our students and graduates few years ago.

REMODELING THE RISK

2. The other directive vector I did mention earlier, more and more tangible in the more recent years, although we hoped we'll not get there, is that of impetuous rise of **all kind of risks**. I would have not believed that time that September, 11th, 2001 would indeed open a new era and that the World would change so much since, because of **terrorism**.

Since then there were more tough terrorism attacks, in various places of the World, attacks to civilization, to democracies, and to innocent civilian people and these attacks became alarming numerous. In today's Paris you cannot visit a simple museum without being checked very seriously everywhere at belongings, purse, carryon, etc... not speaking anymore about the access at the games of the final tournament of the Football European Championship organized in France too. This follows after the tragic events from last year in France, after that one from Brussels airport, after London subway or that one with the train in Madrid, and even more in the United States, raped airplanes and/or crashed, series of attacks in Turkey (just last night it was the toughest in the Istanbul airport) and in many other countries from Middle or Close East. The Egypt I even gave up to ever see it, but I still hope...

The unsecure feeling and fear from terrorism affects both the normal people living and the business developments as well. How can develop successfully and trustworthy long term businesses in an uncertain environment, whereas you are under the terror risk? And I don't believe the insurance solve this problem, even those called "business continuity" or "business interruption", because it's a matter of more collateral losses and sunk costs in such as cases. Most probably that's the reason that actually most of the insurance companies avoid to insure against terrorism risks.

² COINDESK.COM, CNBS News, BITCOINMAGAZINE.COM, ONECOIN.EU

³ COINDESK.COM, CNBS News, BITCOINMAGAZINE.COM, ONECOIN.EU

⁴ COINDESK.COM, CNBS News, BITCOINMAGAZINE.COM, ONECOIN.EU

What business areas are mostly exposed to the terrorism risks? Air and railway transportation, in general public transportation, both when flying or going and in the airports, railway stations, tourism, insurance, real estate, especially hotels, but also in the entertainment and show biz, culture and sports, meaning everywhere when many people are gathered all together. In the same way, the modern commerce, in big malls and commercial galleries or in walking areas with high traffic there are more and bigger such as risks. Turkey is losing nowadays – summer 2016 – probably more than half of the expected tourism income, most of it because of terrorism. It is truth, the conflict with Russia it affects too, because many tourists going in Turkey during summer time are Russians. France lost and is still losing tourists after the tragic events from last year and more recently, as those from Nice, or the one from the church in Saint-Etienne, Normandy. The same Belgium, to name just few fresh examples.

A recent analysis of S&P called “The terrorism effect over EU economies” confirms that Western economies could be affected by the increased number of terrorism attacks, mainly on the perspectives for economic growth and fiscal evolutions. It seems that the sovereign rating of the states would not be so affected, although more negative influences could finally influence the national credential overall. I'll come back to this aspect, whose importance – we will see – will go to the essence of this paper.

By the way the earlier already mentioned Russian – Turkish conflict, another important risk to list here refers to the **geo-political and military** one, a kind of risk with significant economic and social consequences. Despite of the tumultuous history of the XX century, including the cold war, but on the other side, of increasing education in the World, the humanity seems to be exposed to cycliced conflicting situations. In the XX century died between 70 and 120 millions people in the two World Wars.⁵

The North Korea get more weapons and is threatening their south brothers, Americans etc... In Syria its already war for many years, war that generated the migrants waves who scared Central and Western Europe since 2015!

Russia takes her back by herself Crimea Peninsula, after tens of years of Crimea belonging to Ukraine and suspends de facto the border with Ukraine on hundreds of kilometers, border already ignored. As result of this Russian's action the East side of NATO is shaking and is preparing also to get more weapons in the area, because Russia seems that suddenly waked up after 10-12 years that almost became neighbor with NATO countries. Russia at its turn feels threatened over her security circle, circle that targeted herself since the Bolshevik Revolution.

Almost every working day to this paper, something it's happening, Turkey just passed through a coup d'etat attempt, attempt that very quick failed and that could have complicated consequences nu just for Turkey, but for the whole security area just earlier mentioned.

It seems that all kind of alliances during the history are done to be break-down, in spite of the fact that EU was not apparently just a simple alliance of developed and fast developing countries, rather than much more, perhaps even a Federal Europe! Unfortunately this political and economic union, a nice and beneficial construction for more and more European countries it is in danger of failure due to economic, but also to politics and social reasons. It survived to financial and economic crises in 2009 – 2011, and to the sovereign excessive debt of few members, the term Grexit already becoming a usual community language for many years. The Grexit is delaying for years, but it will be Brexit!

Right, the British people just voted with a very sensitive majority - it is truth (52% to 48%) – for the exit of EU, on the disappointment of the business community, inclusive the British one, as a result of at least several clear points:

- The Great Britain is not Greece, it's still one of the World economy forces, a former large colonial empire, London is the financial center of the World and does not accepts overstates decisions of EU institutions, coming from Brussels;
- The vote shows that slightly over a half of those who voted (the vote attendees were over 70% of the total voting population), have the perception and maybe also the confidence that Great Britain gives more to EU than receives and they might have right whether we think at the trend of yielding sovereignty, and especially of getting migrants legally and illegally;

⁵ Adrian Done, *Global Trends, Facing Up to a Changing World*, Macmillan, 2012

- The migrants from Syria, the Arabs, those from Africa, Asia, and eastern Europeans prefer Anglo-Saxons countries because of higher salaries, but also social security, youth education etc...
- However "the winners" out of the British voters probably thought wrong, if they believe that Great Britain will manage better and easier from the economic point of view, besides social and political, without be part of EU; this is valid unless they will better negotiate than before their economic relationship with EU, as some are predicting.
- Great Britain would have been gaining from the very beginning a privileged status with EU, starting with keeping their sterling and thus their monetary policy independence, the status of financial center of the World, privileges that enhanced in time, but it seems they were still not enough.

There are not easy to quantify the long and mid term consequences of this decision of national referendum, but on the very short term the stock exchange and the financial markets dropped many percentages after this event from June, 23rd, 2016.

In conclusion, there is an increase of political instability and uncertainty, with influence over the economic and social one. The Brexit precedent can have catastrophic consequences both within the United Kingdom, that could not be so unified anymore under the queen's crown, but in the rest of EU countries too. Scottish and Irish from north voted differently than the soft British majority, they didn't wish to get out of EU, thus whether they want to remain or to come back in EU, perhaps they will decide to get out of the Kingdom! Never we can say never! Another consequence of the British movement is that other states of the EU can have easier now similar initiatives and ambitions.

What will happen then? Hard to imagine, but one thing is certain, that of *uncertainty and geo-politic instability* are increasing risk, putting at work the *risk management, country risk and business risk*, risk that should be reconsidered, maybe even rethought in order to be measured and integrated in the existing well-known models for many years, to help for its estimations and of return, of investment's results.

The **climate risk** is maybe apparently less tangible than the previous ones, of terrorism and geo-political, but just apparently. The global warming is not questionable anymore, it's a certainty, based on metrics and scientific analysis. The average temperature of the Planet grow by 1 degree Celsius in the last 150 years⁶, and the most recent years are the warmers from the average of this growth, the last 50 years were warmers than any other 50 years interval in the previous 500 years. Or the last 200 years were warmers than the previous 1,300 years. The sea level is raising, because of the ice melting, but in the same time the arid, draught areas are extending, even in the south of our country.

The winters becomes milder and shorter, and summers longer and hotter, as long as there is an increase of extreme phenomenon, again including Romania, with storms, more often flooding rains, high humidity, but also periods with drought and dry weather. I don't think Romania is characterized by a moderate continental climate anymore, as we were learning 40 years ago, so we can just perceive directly by ourselves these climate changes in a very short time, that's very alarming.

What could be the result, the impact of climate changes over businesses and living environment? Both the drought weather and flood raining affects dramatically agriculture, but also tourism and transportation, especially inland, and the insurance business of these types of businesses are more and more precautions. The effects of flood are visible also over real estate businesses, especially that residential, sector with highest exposure at extreme phenomenon (earthquake, tsunami, hurricanes), together of tourism, as already mentioned.

"Over 200 million people (3% of the planet population) are affected by natural disasters every year nowadays, compared with 50 million per year in the 70s...the main causes being the earthquakes and drought, followed by flood and storms, hurricanes. Both poor and rich countries may suffer together after natural disasters. In Haiti, the economic impact due to the collapse of 70% of the buildings was about 123.5% of GDP, and in Japan in 2011 the earthquake from the ocean, followed by the famous tsunami was the most expensive natural disaster from the history"⁷

⁶ Adrian Done, *Global Trends, Facing Up to a Changing World*, Macmillan, 2012

⁷ Adrian Done, *Global Trends, Facing Up to a Changing World*, Macmillan, 2012

However, one of the important conclusions of the Report about the Global Risks, at the World Economic Forum in 2011 is that the world is not prepared to overcome with new major shocks, nor prepared enough to fight against global challenges. Furthermore, the increased connectivity of everybody is helping boosting the contagion effect, so as any possible kind of disaster could affect very fast more and more people than before.⁸

Do you remember the Y2K project? The reset and update of all computers in the world, in order to “learn” the day of January 1st, 2000? An apparently banal question, that actually became a very serious IT project for all physical and legal entities of the World, just because since the invention of computers and until December, 31st, 1999, all days in calendar began with 19__.

Coming back at the risks of climate changes, these seems to be a serious threat just for mid and long term, unless those more tangible already mentioned earlier, that are anyway generally specific to certain business sectors and thus consequently integrated in their specific models of financial and investment analysis, risk and return.

Another type of risk, more often met in the last decade it's a – let's name it – the **biologic** or the **environmental risk**, that one generated by the occurrence of more and more surprisingly perhaps of various kind of viruses, we may call them even mutants, who either affect the security of vegetable or animal food, or can directly attack the human health, without the food intermediation.

Without getting into other more details and beginning with the last one, it should be mentioned that the Zika mosquito virus, very dangerous for the people health, virus present since 2015 in Brazil, is now breaking an important part of the best sport champions in the World to participate to Olympic Games from Rio this summer 2016.

The recent history – as I said – have more such as examples unfortunately, either with pests found in the Spanish tomatoes few years ago, or with those viruses already got directly in the history, also in the recent years, of swine flu and of avian influenza AH1N1, with effects and major risks from Mexico to China, including Romania. Of course there have been affected mainly businesses in the food processing industry, then distributors and retailers in the whole supply chain toward end customers, but these are signs of the specific industry risk, that can born anywhere and anytime, as already seen.

Just one more mention about the Zika mosquito virus, it must be underlined that in the same way as the Summer Olympic Games in 2016 will be affected by the absence of more valuable sport attendees from the world, similar way can be affected businesses over there or everywhere else in the world.

This risk of environment factors becomes also, as the climate one, more often and present in time and space, together with the others two, maybe more tangible, the one geo-politic and military and the terrorism one, and competing finally altogether to our life and environment transformation, a one full of challenges, barriers, and thus limitations of the exponential progress in the last decades.

How do we factor these big risk categories, boosted in the last years, especially last 15-16, after the year 2000? How do we factor them and integrate inside useful models, more adapted to these days, versus what we knew up to now, in order to estimate assets and business values today for the future?

If we take the top-down way, we find the following categories of risk:

1. Country risk;
2. Specific industry risk or activity, sector;
3. Specific business risk.

The country risk or even the region/area risk can be considered a systematic risk, macroeconomic risk that cannot be minimized or diversified away, the more so as when it's extending at global level, but the others, more specific risks are considered non-systematic ones, at microeconomic level, that kind of risk of a specific business and that can be diversified away, alternate with others, from case to case.

The country risk is excellent addressed and analyzed on an annual basis, in an exhaustive manner by Professor Aswath Damodaran from Stern School of Business, in his 2015 edition called “Country Risk: Determinants, Measures and Implications”.

⁸ Adrian Done, *Global Trends, Facing Up to a Changing World*, Macmillan, 2012

Starting from the sources of the country risk, he is doing an excellent radiography of more elements that generates this primarily risk, to whom are exposed both investors and businesses on a new market:

- The life cycle of the respective economy, cycles similar with those of microeconomic level, company's level;
- Political risk, corruption and other additional costs, nationalization and expropriation;
- Legal risk, that of legislation regime, of its confidence and independence versus politics and corruption; property rights protection;
- Economic structure, the country's dependence by one major product or service.

Analysis and awareness of these risks determines then its measurement and gathering in a homogenous index, that can be compared among various countries. There are more approaches however, more entities who takes care about country risk computation, as for instance **Political Risk Services**, that's using 22 variables, clustered on 3 dimensions: political, financial, and economical. Each one receives a country risk scoring, and then altogether makes a composite index of country risk, with values from 0 to 100. The high values of index shows a low country risk, and low values of index showing a major risk.

Look below in the 2015 edition of prof. Damodaran material the 15 most risky countries and most safety, according to Political Risk Services scores:

Highest and Lowest Risk Countries: PRS Scores (July 2015)

Riskiest Countries		Safest Countries	
Country	Composite PRS Scores	Country	Composite PRS Scores
Syria	35,3	Switzerland	88,5
Somalia	41,8	Norway	88,3
Sudan	46,8	Singapore	85,8
Liberia	49,8	Luxemburg	84,8
Lebanon	50,3	Brunei	84,5
Guinea	50,8	Sweden	84,5
Venezuela	52	Germania	83,5
Yemen	53,8	Taiwan	83,3
Ukraine	54	Canada	83
Nigeria	54,3	Qatar	82,3
Zimbabwe	55,3	Great Britain	81,8
North Korea	55,8	Denmark	81,3
Mozambique	55,8	South Korea	81
Congo	56	New Zealand	81
Belarus	57,5	Hong Kong	80,8

As I said, there are also other institutions, entities that takes care about analysis and measurement of country risk, as **Euromoney, The Economist, World Bank**, that uses various methods for aggregation of more aspects, dimensions to be analyzed and compared.

However, it seems that all these measurements and rankings have their limitations, from the investor's interest point of view and for businesses, companies interested to invest abroad. This is truth either because they are using different models and methods, rather useful to politicians and to macroeconomics than to businesses and associated risks and – implicitly those methods are not homogenous and standardized – or simply because it counts more the ranking than the scoring, rankings where the measurements are pretty relative, unless the big differences between very different countries, where the risks are very different too.

Finally the most followed country risk analysis is the sovereign default risk, either in local or in foreign currency.

There is a long and rich history of cases when governments got in default, even from the 19th century up to today, as we could see with Ukraine and Argentina beginning of 2000-2001. But this history is richer when looking at Europe and Latin America (200 years) and shorter for Africa and Asia (50 years), in accord with economic developments, being many countries passing through these situations, some even more times, for such as consistent period.

Romania is not excluded from this group of countries, but there were also other Central Europe and Western Europe countries like Hungary, Austria, Germany, Poland, Italy, Spain or Portugal.

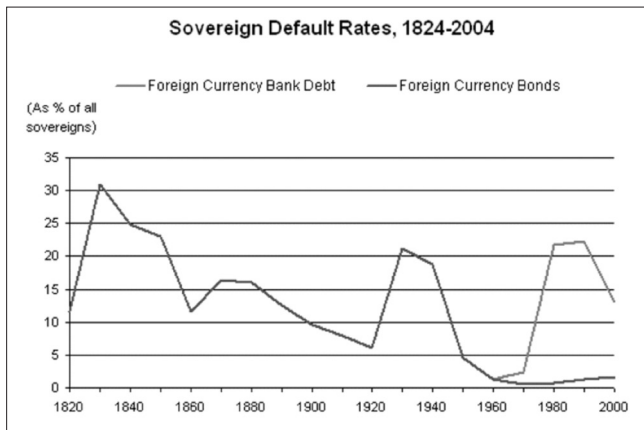
From the type of debt point of view, the research and studies about countries risks of Prof. Damodaran, shows that countries remained indebted mostly to banks and less to meet their sovereign bonds obligations.

If until 60s, governments borrows money from banks exclusively, later the issuance of sovereign bonds was born, government bonds in foreign currency, whereas governments managed better the situations than in the banking loans before. And the major incidence of this was in the last 50 years in Latin America.

Default situation happened not just in foreign currency debt cases, but in local money as well, even recently, for examples in Argentina (2002-2004), Madagascar (2002), Dominican Republic (2003-2004), Mongolia (1997-2000), Ukraine (1998-2000), and Russia (1998-1999).

The level of debt for various countries as a percentage of GDP grew steadily in the last years, especially after the Big Credit Crises between 2007 – 2009 in the USA, and the Sovereign Credit Crises in Europe, beginning with 2008 and after.

Below is the evolution of debt as a percentage of GDP in the last almost 50 years in the USA:



Source: FRED, Federal Reserve Bank of St. Louis

Let's see a situation of the EU countries from this point of view as well:



Public debt (% of GDP) 2011

Source: Valentin Lazea, Proiectul European

Belgium	97.8
Germany	80.6
Estonia	6.1
France	86.0
Luxembourg	18.3
Netherlands	65.2
Austria	72.3
Slovakia	43.3
Finland	49.1
Slovenia	46.9

Ireland	106.5
Greece	170.5
Spani	69.1

Italy	120.1
Cyprus	70.7
Malta	70.8
Portugal	107.8
United States	103.0
United Kingdom	85.1
Bulgaria	16.3
Czech Republic	40.8
Denmark	46.6
Latvia	42.2
Lithuania	38.4
Hungary	81.4
Poland	56.4
Romania	33.3
Sweden	38.3

The level of debt as a percentage of GDP is absolutely one of the main factors of default risk, followed by government's commitments for pension funds, social security and healthcare, but also the revenues side it's important, with its items naming taxes and fees, their stability, political risk, as long as the group of other country's support or country's association that could help, as in the case of more modest economically countries within EU.

Country risk has been ranked in time similar with the micro models, of companies, whereas big world names became specialized, like Moody's, Standard & Poor's, Fitch, who grant ratings to countries based on economic, financial and political criteria, from the maximum rating of AAA to the lowest C. However there are all kind of limitations of these agencies, limitations that sometimes went to the wrong diagnostic.

Besides the rating agencies, let's focus now more on the country risk definition, that centered in the last decades on bonds market, especially since the states and their governments moved their borrowing preferences from banking to financial market.

Thus the interest rates at sovereign bonds became in time relevant indicators about country risk and implicitly of default risk. The simplest way to valid this hypothesis is when comparing interest rates of bonds issued by different countries, in the same currency with the American one for instance, so comparing with US government bonds for the same period.

The higher interest rates of country's bonds from Latin America versus those of USA bonds, issued for the same time period, shows the country risk of those countries. The below table summarizes the interest rates and risk differences for several Latin America's country's government's bonds exactly one year ago (2015), bonds issued in USD, in comparison with US Treasury bonds, and together with the respective ratings given to those sovereign bonds by the Moody's agency:

Default Spreads on Dollar Denominated Bonds- Latin America

Country	Moody's rating	10 years Bonds interest rate in USD	10 years USA Treasury bonds rate	Default risk differential interest
Mexic	Baa1	3,92%	2,47%	1,45%
Brazilia	Baa2	4,50%	2,47%	2,03%
Columbia	Baa3	4,05%	2,47%	1,58%
Peru	Baa2	3,93%	2,47%	1,46%

Research work revealed that the interest differentials can be a good predictor for the default risk, then occurring other new instruments measuring to this risk, in the name of CDS (Credit Default Swaps), that measures the same risk in percentages, that in fact in this case represents the market price of an insurance that an issuer, even a Sovereign one, is paying back. That price is used in the specific market for such as transactions, a market that became enormous until the Great Credit Crises came in 2007 – 2009 (ten of trillion dollars).

There are relevant correlations between CDS prices and the default risk of the issuing countries, correlations that helps to the correct evaluation of the respective countries, despite of its limitations, like any imperfect market.

The country risk is essentially important for investments and investors in their businesses valuation, and up to now we have seen the story with debt and bonds, the risk measurement through the interest differentials, but what about looking to equity investments?

The equity investments and country risk are associated with a risk premium, variable from one country to another, a specific premium for the equity risk invested in that country.

The model “Capital Pricing Asset Model – CAPM” for assets and business valuation everywhere in the world can be replicated at global level, whereas the equity risk premium ERP is determined by the risk differentials from one country/region to another.

However at global level the model has some limitations, both at country risk valuation, where the Beta risk coefficient is not the same with that of industry or company level, and to the investment risk premium level too, premium added up to interest rate of sovereign bonds without risk.

But what government bonds are still without risk anymore? Those of US Treasury? Maybe, although after all events from last years, events at global level, listed in details earlier in this material, I do think it's progressively riskier to base this model on “guaranteed” returns by any sovereign entity, even the American one, as being without risk. And then, still stands up the CAPM Model? If yes, then I believe it's shaking a little at least. If not, then to be replaced with what?

Professor Aswath Damodaran⁹ from the Stern School of Business did an excellent analysis of country risk determinants, with measurements and implications, in the same material mentioned earlier here and published last year, where he concludes that the country risk cannot be totally eliminated, even by the multinational companies with operations across many countries, because of the globalization effect and of interdependence between countries and regions, as it has never been before. That's why he proposes three approaches:

- The interest differentials for the bonds issued by a state versus another less risky one, as could be US;
- Equity risk premium, estimated based on capital market volatility in one country versus the average equity risk premium of international capital market or of the US capital market;
- Equity risk premium deducted from the shares price and the estimated cash flows.

In spite of all this, the existing approaches are based on the assumption of returns of sovereign bonds without risk, eventually or those on short term issued by the US Treasury, where from are to be calculated for all other states and important regions of the World. Obviously that the rationale behind this approach, from the very beginning of the CAPM Model, was in the first row the visibility and transparency of the interest rates and of the market price of these bonds, and in the second, the high confidence in the zero default risk of the American government.

But as long as any country, any government can have bonds with an interest rate considered without risk and carrying a certain return, that return will be proportional increased up with a higher country risk, according to the market volatility assessment and validation, actually resulting that is nothing without risk.

The risk has a price, a return, a result, an interest, a cost of money or of capital, and if we review the first part of this material, a part where I do pinpoint more and more risks to whom the humanity and the business world are exposed, I do postulate that there are no riskless investments anymore, nor those of short term American bills, notes etc. not mentioning again the huge debt level of American economy versus the rest of the World anymore, and with the statement that the US dollar hegemony as international reserve currency, financing etc... and the endless dollar's printing will come to an end, as long as the still apparently unlimited confidence in it.

⁹ Country Risk: Determinants, Measures and Implications – The 2015 Edition Updated: July 2015, Aswath Damodaran Stern School of Business

So I do forecast that models for returns and associated risks estimations will become even more complex in the near future, under the multiple risks and uncertainty conditions, both on the bonds and banking markets, and the equity markets as well, for any kind of investments, each with its proportionality of risk – return.

The CDS are also a consequence of multiple risks we're facing to, especially after the Great Credit Crises from 2007-2008 and we see them being part more and more of risk return analysis for country risk valuation, important for domestic investments, but even more for those happened abroad. The risk premium carried by CDS for country can replace or just accompany for the moment the risk free interest rate of sovereign bonds, or any other relevant combination and additional elements, as long as we live with more and growing existential risks.

In conclusion of this paper work, there are here just two of the challenges to whom the theory and practice of economics and financial world are already exposed, the virtual currencies, crypto currencies and the assets and business valuation models respectively, from the risk return point of view, challenges that will become sooner or later certainties, and that requires major changing approaches.

Let's follow these challenges on continuation, but also others not mentioned here now, or that will certainly occur, maybe even in the near future, a future characterized by a still advanced and accelerated IT&C developments, but also by human turbulence of nationalist behavior, more intensive mass immigration from the hot conflicting zones, anti-globalization and terrorism.

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CROSS-CULTURAL VIRTUAL TEAMING: AN EXPLORATORY APPROACH

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Abstract: *Simulations have long been a tool for managing improvement changes within organizations and creating a virtual reality to model cause and effect. Therefore, it is highly effective in business environments for providing insight in to changing business processes and aiding in the development of accurate forecasts to demonstrate how variations in the processes impact the decision-making process. In implementing these changes, teams are usually established to direct the decisions. Teams and team-building are common place in the business environment, however, virtual teams are a fairly novel concept. With increased globalization and technological communication improvements, virtual teams have increased in popularity over the past two decades. But compared to face-to-face teams, virtual teams are far more difficult to form and to manage making the need to provide appropriate tools to the team that much more important and international virtual teams have far greater hurdles to overcome due to cultural and time zone differences. This paper outlines the formation of cross-cultural virtual teams and the aspects that hinder successful implementation of the team, and then explores the effectiveness of the Capsim Global DNA business simulation on the international virtual team productivity and progress in the Executive MBA student learning environment to mirror virtual team business relationships.*

VIRTUAL TEAMING

There is no doubt that team work is an important facet of any business. Team work is essential to increase the organizational efficiency of any business, and individuals rely on teammates to motivate each other, increase creativity and innovation, increase problem-solving abilities, and increase communication and trust. This is all accomplished through team building. The same holds true for virtual teams but due to the lack of face-to-face interaction with this type of team, achieving these improvements tends to be more difficult. The team building process also has the same challenges. This first section describes the process behind forming a well-performing virtual team and what processes need to be in place to foster better communication, trust, problem-solving, and creativity.

Teams are typically formed to bring together a group of individuals for the specific purpose of focusing their collective knowledge and skills to accomplish a task or outcome. In a literature review of teams and teaming, a number of characteristics are cited as impacting team effectiveness including such factors as team member composition, goals, motivation and reward structures, norms, processes and leadership. A virtual team is a special category of teams. Typically a virtual team consists of members housed in different locations. "Grosse (2002) defined a virtual team as one that conducts its work almost entirely through electronic technology" (Roebuck

et. al 2004). Virtual team members typically do not meet face to face while relying on technology collaborative technology, computers, Skype, phones, virtual meeting sites, shared workspaces as well as other means of communication for task-related communication (Roebuck et. al 2004).

Thus, in addition to the elements essential to effective teaming, virtual teams must deal with the “triple” challenge of distance, language and culture (Rohm, 2011) in order to operate effectively. Clearly, access to the appropriate communication technologies and their use by the team is important. However, building trust and relationships are also seen as essential to virtual team success (Peters et.al 2007). Trust is a condition for collaboration, the rationale for forming teams in the first place. In research by Peters and Manz (2007), shared understanding of goals is another important condition for effective virtual teams. The authors also see the personal relationships as influencing trust.

RELATIONSHIPS AND TRUST

In the absence of face-to-face meetings, virtual teams can easily bypass the activities and interactions that build trust. Taking specific action for team members to get to know each other becomes critical to successfully launching a virtual team. In the absence of launching a virtual team with an in-person kick-off meeting, some effective ways to build relationships can be sharing stories and pictures of each team member's families, discussing interests and hobbies or having a brief team building exercise at the beginning of the first few meetings. Teams that ignore the importance of building trust are less likely to share information and develop strong relationships. Without trust, team members tend to be less open in their communication for fear others may use it to their advantage. Studies have shown that successful virtual teams focus on building the relationships and developing trust by using technology that allows them to see each other or using the phone during the early stages and less effective teams use written communication more often as their primary means of communicating. There are many tools available that allow for teams to use computer mediated communication which results in higher levels of trust and leads to better relationships in the virtual environment (Peters et.al 2007).

COMMUNICATION

Communication on virtual teams is often less frequent, and always is less rich than face-to-face interaction, which provides more contextual cues and information about emotional states – such as engagement or lack thereof.

Thompson and Coovert (2006) suggest six steps to prepare team members for working virtually. These steps consider the additional challenges of communication when members are not operating face-to face. Recommendations include training team members on dealing with conflict, understanding cultural preferences or biases and communicating expectations and information needs in a virtual context. This training is layered into a training agenda for “traditional” in-person teams on such topics as setting goals, defining roles and, especially, establishing teaming norms or how members will interact.

For virtual teams, a carefully developed charter will establish norms of behavior for participating in virtual meetings, such as limiting background noise and side conversations, talking clearly and at a reasonable pace, listening attentively and not dominating the conversation, and so on. The charter also should include guidelines on which communication modes to use in which circumstances. For example, there should be guidelines as to when to reply via email versus taking the time to discuss via phone (Watkins, 2013).

Telephone, audio conference, and video conference etiquette and meeting management techniques for ensuring participation from all team members, protocols for identifying oneself before speaking, using the mute button when one is not talking, giving people who are using a second language time to collect their thoughts, using a meeting agenda, and recording and distributing minutes (Henry et.al 1998).

LANGUAGE

Cross-cultural virtual teams have members from different countries and cultures which can cause some communication challenges – especially when members think they are speaking the same language. When teams

work on tasks that are not of a technical nature, such as generating ideas through brainstorming or solving problems, the potential for different interpretations of what is being communicated is a possibility (Watkins, 2013). It is essential that teams make decisions and come to an agreement as to the meanings of important words and phrases so everyone understands what is meant. For example in some cultures saying "yes" does not necessarily mean one agrees with what is being said or the decision. The team should come to a consensus what these words or phrases mean and post them in a shared workspace for reference (Watkins, 2013).

CULTURE

Multi-cultural teams are becoming more and more prevalent with the "increasing globalization of organizations" (Vinaja, 2003) and include members from around the globe. Developing these relationships early on is critical to having a successful team. There are online tools available to aide in this process. Some of these online platforms provide a wealth of information geared towards the business person who wants to increase their competitive advantage in communicating in a global business environment. These tools allow one to better understand individual cultural preferences that affect communication at work and identify the potential cultural gaps that occur when interacting with those who are different and strategies for dealing with them.

Cultural differences are an important area to pay attention to when on a virtual team. Cultural differences can impact how communication occurs since there may be a language barrier and often when communicating some things may get "lost in translation". Some words have different meanings depending on the culture. It is imperative to clarify, restate or paraphrase in order to make sure what was heard is correct. Different cultures communicate in ways that are unique to their country and it is important to be aware that what may sound critical or authoritative may just be their cultural style. Culture also impacts how one manages time, for many of us 1:00 means 1:00 and for others it could mean 1:30 or later. These areas need to be addressed and resolved for the team to work effectively. Culture influences how quickly tasks are completed and following through on commitments. Some individuals deliver their work quickly whereas others take more time to complete their projects. Virtual teams need to recognize how each culture differs in order to be effective in the long run (Vinaja, 2003). One team member from this study provided feedback that "I have learned that there are important cultural differences that must be considered when we start working on an international virtual team. We learned to work together in mixed teams to adapt to the style of other colleagues in order to achieve our goals."

CONFLICT ON VIRTUAL TEAMS

All teams face challenges with conflict but cross-cultural virtual teams must deal with additional issues. Differences in culture are compounded when all communication is virtual and trusting relationships are not established. Hofstede's cultural dimensions suggest cultural differences that have the potential to lead to conflict. For example, the dimension relating to individualism vs. collectivism provides insight as to how different cultures might value processes and rewards associated with the individual vs. the collective team. This value difference has implications for team roles, brainstorming activities, decision-making and recognition. Hofstede's power distance dimension describes attitudes towards hierarchy. Depending on the cultural preferences of the team members involved, differences may exist over attitudes toward team leadership and roles. While some cultures are supportive of hierarchy, others prefer a more egalitarian approach (Gibson et.al 2003). Differences in technology resources, time zones, language capability and team goals and expectations are additional areas presenting sources of tension and conflict.

To improve effectiveness, virtual teams should directly address the issue of conflict. Team members should discuss and come to formal agreement on processes and procedures for handling conflict and communication as the team is forming (Runde et.al 2008). Aside from considering the potential for conflict when developing team norms and behaviors, communication and meeting protocols, and role definition, expectations and assignment, virtual teams should document a conflict management process to include steps related to escalation and mediation/resolution. Lastly, virtual teams can benefit from completing assessments providing feedback on cultural and conflict preferences. Instruments such as the Cultural Navigator and Thomas-Kilmann Conflict Mode can provide virtual team members with insights regarding their personal profile preferences. Sharing and discussing individual

results by team members creates greater awareness of differences and provides an opportunity for building trust and relationships.

ADVANTAGES OF VIRTUAL TEAMS

Virtual teams provide companies with the advantage of being able to grow globally across space and time boundaries (Uball, 2010). Some benefits of virtual teaming are increased knowledge, broader skills and the value of the experience (Deeks et.al 2004). Working with individuals from different cultures provides an opportunity to learn from others and share a variety of experiences that are only available in a virtual environment. The different experiences and knowledge create different perspectives and points of view which can provide the company with a competitive advantage. Virtual teams allow members the ability to work around the clock since the team is usually spread over multiple time zones which increases productivity because when one person sleeps another team member in a different time zone can continue the work. The result is shorter development time and a faster time to market. Virtual teaming can be more cost effective since technology is the primary means of communication and travel expenses are significantly reduce or completely eliminated. Members of a virtual team also benefit since many no longer need to commute to an office, have more flexible scheduling as well as fewer interruptions.

DISADVANTAGES OF VIRTUAL TEAMS

Some of the advantages mentioned above regarding virtual teaming can also be a disadvantage. The differences in time zones may present problems for virtual teams since some of their activities need to be worked on collectively rather than independently. Depending on where team members are located it is possible for some to be up to a day (24 hours) behind which may impact the team's ability to deliver on schedule (Vinaja, 2003). Another disadvantage of virtual teaming is the lack of face to face contact. The lack of face to face contact may be problematic since much of communication takes place through facial expression and body language; with a virtual team these are lost. The ability to create an office atmosphere is difficult on a virtual team and the opportunities presented by striking up a conversation in the cafeteria or hallway is nonexistent. This may adversely affect members of a virtual team because often workplace colleagues become close friends and in a virtual environment it is more difficult to develop these close relationships. Using the phone and videoconferencing are not seen as personal as face to face meetings (Oertig, 2006).

BUSINESS SIMULATIONS

The saying "you can't manage what you don't understand" is well-known in the business community. Thus understanding strategy, management styles, people, and functional areas of business are extremely important tools for success in a complex and always changing business environment. If there was a means of accomplishing all those multi-faceted layers of understanding then people would find far greater success in their business careers. Thus, simulations are created to do just that. Simulations provide skill development, greater engagement, and enhances learning of new techniques and concepts. Simulations gives participants a far greater understanding of how our business works and what they can do in their own roles to have an impact on the result.

The benefits of business simulations in helping students achieve their academic learning goals is highly documented in the literature. From Bell and Loon in 2015 and as far back as 1958 with Harling's study on simulation techniques in operations research, studies continue to prove the beneficial effects of business simulations in academia and in work environments as a means for practical learning and immediate concept application. These simulations allow the users to apply theoretical knowledge to a "real-world" situation in a simulation setting. Business simulations usually incorporate a series of data-driven input variables designed to engage the learner in a quantitative exercise that mirrors the business environment and relays the impact of specific decisions on business performance. In the majority of these simulations, learners work with varying strategic selections that allow them to learn about best-practice decision making in leadership, sales and other important development areas. Simulations are engaging and advantageous to the development of strategic thinking skills and strategy

execution. They motivate the user and allow for up to 70% long-term retention of the attained knowledge by "learning by doing" versus just listening to a lecture. Simulations provide experience to those participants, used to working in silos, on integrating business areas and the impact that one functional business area has on the next and that each and that every one of them can positively affect the bottom line. This not only provides the learner greater business acumen skills and knowledge, but also allows them to explore the horizontal integrative nature of a business. The learner possesses all the important functional area attributes of a company and can apply them throughout the business.

Unlike traditional forms of education, simulations are proven tools for increasing strategic alignment and decision-making capabilities, improving innovation and creativity, directing leadership development, increasing management abilities of business dynamics, better handling of risk and uncertainty, and greater team dynamics. Simulations go further than the traditional methods by narrowing the gap between theory and application. Participants usually require immediate applicability of learned concepts and simulations are a great way of providing these outcomes. In order to achieve this immediate applicability, a simulation is required to incorporate realistic business concepts with progressive levels of difficulty, run in a safe environment, and provide meaningful feedback and results. A proper simulation uses real-world competitive dynamics and places leaders in a context where they step out of their normal day-to-day roles and gain exposure to the big picture. Participants make decisions in a risk-free environment, allowing them to experience critical interdependencies, execute best practices, and test the levers they can use to optimize their company's key performance indicators.

Along with the above studies ascertaining the value of simulations to aid in business skill development, simulations have also been shown to develop teamwork skills among the students. Lamont (2001) has argued that simulation should be used to teach teamwork and collaborative relationship skills and not just functional business knowledge. In complex business environments, teamwork is essential for continued success. Most individuals in businesses don't work alone on a project, the amount of information to digest and make appropriate decisions is too great for one individual to handle, and teamwork is crucial in creating change with value. But teamwork and teaming take practice. As mentioned above, you need open communication, trust, collaborative abilities, and conflict management skills. It is therefore worthwhile to understand the effect of team related factors on the effective learning experience within a simulated activity. A simulation provides a far greater teambuilding experience than traditional classroom exercises because not only do team members need to develop effective communication skills, but they also need to develop perspectives on multiple viewpoints and be able to confront and manage conflict situations that will inevitably arise.

Team cohesiveness has been widely studied in terms of predicting simulation performance (Gosenpud 1987). Highly cohesive groups are thought to be more effective, because the group can divert its energy toward accomplishment of its goals rather than expending energy in dealing with or managing internal conflict (Gosenpud 1987). In these cases, teams compete in a dynamic engaging environment in order to enhance business acumen skills and increase their strategic interactive abilities. These team based simulations serve to explore influences on collective decision-making, analyze different leadership approaches, and team responses all while producing effective strategies for building, participating in, and leading teams more effectively. With participants working in small teams, they have the opportunity to share experience and knowledge, present and promote different viewpoints, and develop their interpersonal skills.

In a study by Walters and Coalter (1997), teams with higher levels of consensus expressed greater satisfaction with their group. The exercises involving simulation involves consistent team work and hence, the learning would be determined by the performance of the groups as a functional team. Besides, team cohesiveness, team size also has an effect on team performance and individual team member satisfaction (Cosse, Ashworth, & Weisenberger, 1999; Walters & Coalter, 1997). Prior research has also indicated that there are assets and liabilities associated with teams. For example, teams can stifle creativity, encourage free-riding and conflict. The atmosphere in a team, including trust and cooperation can also affect team performance (Kramer, 1999). At the same time, teams can promote rich diversity of ideas and enhance the quality of decisions. However, these are all face-to-face teams not virtual teams. In this decade, many teams are geographically spread and often times have never met so there are obstacles already in the way of forming an effective team. It is paramount that relationships

are built between individual team members before trying to accomplish any task.

The above information clearly outlines the positive impact simulations can have in helping develop business acumen skills for professionals as well as aiding in the team-building process and the current body of knowledge supports these impacts. But the literature is lacking when it comes to the enhancements that a business simulation brings to virtual team development. The only known study is one by Roebuck et al. (2004) on the use of a simulation to explore the challenges of communicating in a virtual team, but does not address the other major issues that could potentially arise when operating virtually. We attempt to increase that body of knowledge through our explorations of well-performing virtual team development through the use of a global based business simulation.

GLOBAL DNA APPROACH

The Kennesaw State University Executive MBA Program from Atlanta, Georgia and the ASEBUSS Executive MBA Program from Bucharest, Romania have a 12 year established cross-cultural relationship. Students from both programs engage in a virtual team based project for a six month time period. Teams are selected by the ASEBUSS and KSU Program staff members and are usually an even mixture of US and Romanian students. The students are encouraged to establish a relationship first and then develop a communication plan in order to create trust within the team. The process of relationship building among the teams and development of the communication plan is facilitated via the exchange of personal and professional bio's, online chatting, and SKYPE meetings (note: the American and Romanian students remain physically in their own countries during the project until the last 4 days of when the Romanian students travel to the American university to jointly present the results of the assignment). In addition, the students are provided access to a cross-cultural assessment tool, Cultural Navigator® by the Berlitz Company. It is an online application that enables the students to understand cultural preferences and they impact their work environment, identify potential cultural challenges and strategies for addressing them, collaborate more effectively with colleagues and clients in other cultures, interact with an extensive experiences group of subject matter experts, and follow step-by-step Learning Paths that guide them to relevant interactive content. (<https://www.culturalnavigator.com/>).

Each student completes the assessment and then shares their cultural preference profile with their team members. These profiles identify the similarities and differences among the team members, and examples strategies are provided for reconciling differences that may lead to a conflict in how issues are approached and decisions are made in a cross-cultural team environment. The teams then develop a communication plan of action for when and how they will communicate, (e.g., discuss issues and strategy, resolve problems and conflict, and make decisions in the assigned joint project).

Once the teams have completed the forming stage of getting to know each other, they are then compete in the GLOBALDNA® simulation created by the Capsim Company. In this application, "through a realistic, engaging, hands-on learning experience, students explore why companies choose to compete internationally...(and) as they gain insight into multinational operations, they are challenged by differing market conditions and their influence on strategy." (<http://www.capsim.com/globaldna/>). Capsim states that the specific learning goals of are for students to understand strategic options outside a domestic market, investigate strategic complexities when operating across borders, learn how regional currency, taxation and regulatory issues impact decision making, explore the alignment of decision making across both corporate functions and international business units, and understand corporate motivations for competing globally.

All teams are provided with a manual, The Global DNA ® Managers Guide, which details the simulation objectives/goals and process steps for researching, analyzing their company and industry data, as well as how to enter decisions and run the simulation online. The simulated company for each team competes in the portable genetic diagnostic testing market. At the beginning of the simulation, all teams are equal in regard to their balance sheets, income statements, resources, product (quantity and quality) and labor. In addition, none of the teams' companies have sold product outside of the Americas in the past; however, they are now presented with opportunities to expand to Europe and/or the Asian-Pacific markets. They must use the company and industry

data provided to manage and make decisions for the marketing, research and development, production and finance departments to execute their strategy. As a learning mechanism, the teams are given an opportunity to participate in a rotational executive development program (EDP) designed to help prepare them for the GlobalDNA simulation experience. The students manage each of the four functional departments and are given a series of tasks to complete in an interactive environment replicated in the simulation.

The teams first assign business function roles to each member and develop a strategy plan for the eight decision rounds of the simulation. Each week, teams meet via online media platforms to research, analyze and make decisions (e.g., investment in R&D, product design/development, sales staffing, TQM, inventory, target markets, promotion, pricing, etc.) to compete against the other virtual cross-cultural teams based on the results of their weekly decisions using various weighted metrics (e.g., net profit, sales revenue, market share, ROI, ROE, stock price etc.). These decisions ultimately produce results that are returned to the teams for them to analyze before making the next round of decisions. After the eight decision rounds are completed, the Romanian students travel to the American university to meet in person with their team members to develop a presentation of the project. The presentation is scoped toward an audience described as the Board of Directors (faculty from both universities play these roles) who are there to evaluate the performance of the teams and decide if they team would be allowed to continue in their management role of the business or not. The presentations are developed into two basic parts: the team should provide (1) an explanation of how they performed in the simulation (e.g., data driven metrics) and why they achieved these results (e.g., good and bad decisions, competitor actions, market conditions, and team dynamics), and (2) provide a strategic plan for the future of the company to improve the overall position and growth of their simulation company.

This business simulation exercise helps students to understand the challenges and complexities leading, managing, making decisions and executing across business functions and units in an international business by researching/analyzing opportunities and creating/executing business strategy in a global context of new market develop and expansion in new markets with regional consumer and competition differences.

EXPLORATIONS

This paper attempts to explore the formation of virtual teams and the propensity to elevate themselves to well-performing teams if the process is done correctly. It also attempts to explore the benefits a global business simulation has on their processes for developing their team dynamics and increasing their efficiency of operating together to accomplish a mutual goal. These results are provided through direct faculty observations, student process questions, and student feedback that occur at the end of their project. Specific examples of process questions answers will be provided in this paper along with student feedback to show the Program's development of an improvement model. All of these areas taken together provide a clear and concise view of areas for improvement and an understanding of the dos and don'ts of virtual teaming, and thus how to guide teams engaged in future projects on becoming a well-performing virtual team.

Over the past 4 years of conducting this project, feedback has been captured on the development of virtual teams as well as personally observed behaviors that have contributed to the success or failure of the teams. Almost 250 data points have been collected and these observations have afforded a paradigm shift in how the project and the teams are initially shaped and instructed. First, there are several pitfalls to be aware of when assigned to be a member of a virtual team. Often the goals, directions or priorities of the team are not clear. It is tougher to communicate with and include team members who are geographically dispersed than working with individuals who are located in the same office. Since team members are virtual and not in the same place, it is difficult to keep all members focused on the same goals, especially over a longer period of time. The lack of understanding of these important areas in the team building process will lead to misdirected work and wasted time and resources. During the initial contact between student teams, each side of the KSU and ASEBUSS team are encouraged to create a PowerPoint presentation to send to each other. This presentation contains each team members' name, picture, and short profile. This is a way to virtually get to know each other. It doesn't form the relationship but can be the jumping point to a relationship when face-to-face meetings are not possible. The next

encouragement provided comes in the form of virtual facetime communication through technology such as Skype. With technological advances being what they are, the ability to see each other through a video screen is the next best thing to a face-to-face meeting and allows that relationship to grow.

One of the process questions asked of the students is how did the lack of face-to-face interaction with the other virtual team members help or hinder the process? The use of advanced technology is aiding in that ability to have a form of face-to-face interaction without actually being present next to one another. Skype, Google Hangout, or any other virtual face to face technology is the best way to conduct meetings without being physically face to face. This is a way to overcome that distance that tends to exist between team members because they cannot see each other. It, in a sense, forces the interaction and the distance between members to be decreased. On the US side, students are encouraged to get to know their Romanian counterparts before charging ahead with the assigned project. Another pitfall in global virtual teams surrounds the different concepts people have about being on a team. The value of working in a team as opposed to working individually differs by country. Individuals from different countries do not necessarily agree on the same definition of teaming and would describe the objectives and goals of their team differently. Americans by their very nature are very work oriented and tend to take little time to develop a relationship with their team members before forging ahead with their assigned task. Romanian culture is different in that relationships build trust and that trust cannot be present without knowing the individual on their team. By fostering the relationship and getting to know one another before continuing with the project, virtual teams can form a stronger bond and tend to get more tasks accomplished more quickly.

Along with the relationship piece and just as crucial to the development of a well-performing international virtual team is conflict management skills. Conflict will most always arise on any team no matter how strong the relationships are. This is human nature as everyone has their own opinions and concerns about how a project should be run. Instead of retreating from conflict, the project teaches to face it head on so that all team member's ideas are voiced and heard and all are taken into consideration. Be respectful of everyone's ideas. As stated above it is to take the time to understand another culture before beginning a project. Ultimately not fully understanding the way another culture thinks will cause mis-understanding of perspectives and opinions and ultimately cause conflict. In this instance, it is beneficial to allow more time for cultural understanding in the process; the more team members get to know their counterparts, the less conflict will arise later. This lack of understanding about different cultures also lends itself to the next issue facing virtual teams: communication.

Another process question that the team members are required to answer is: What did you learn about communication and decision-making among virtual teams? Communication is the key. One student answered this question with "I learned that if you do not get to know your counterparts and their styles of communication immediately, it makes it very difficult to get started. I also learned that you must set expectations on how to communicate to be effective. The best way to make decisions is to have buy-in from all members of the team. The best way to get that buy-in is to have consensus but define who makes the final decision in case of stalemate. There are other ways that may work but it should be clearly defined before you get started in order to not hinder the progress of the team" and that is one reason why a communication plan assignment is set in place before any work on the Global DNA simulation is started. This is evidenced by another student who wrote "I learned that the planning we did early on for our communication plan had immediate dividends. By forging an operational model at the onset, our decision-making process was drama free. We also learned how to deal with the fact that our scheduling meant we almost never had a full seven people at every meeting. We learned to trust each other to represent missing people's views and also trust their decisions." This communication plan and early relationship building is key to the efficiency and productivity of any virtual team especially one that is cross-cultural.

The cross-cultural virtual team needs to address how they will engage with each other early in the teaming relationship. It is especially important for team members to clearly understand their individual roles and how their work impacts other team members. Without this understanding, it is possible for one team member to take the entire team off-course because of their inability to see the big picture. Because there's a lack of face-to-face contact inherent in virtual teamwork, the process of establishing trust and good working relationships that lead to group cooperation can be difficult (Turmel, 2007). Over time, this lack of collaboration can lead to a lack of trust amongst team members which can derail projects and productivity. All teams are based on trust, so the

better the trust, the better the team. A team that is engaged and committed will work toward success and exceed expectations. A team has to have a clear vision of the goal they are working toward and what the milestones are to reach the goals. This helps to keep everyone motivated, even when issues and stressors arise.

Accountability is absolutely necessary to a virtual team achieving success and performing well together. The following process questions were asked to further develop team efficiency and accountability: How did I help the team to work more effectively with the other virtual team members? And how might I have hindered the team's work with the other virtual team members? No team, whether virtual or not, can be successful without clearly defined expectations and a plan for how to achieve them. Virtual teaming makes this even more challenging. There are behaviors that demonstrate a virtual member is beginning to disengage such as missing the team calls, not participating in the team meetings and lack of information sharing with the other members of the team. Often a disengaged team member tends to do other work or even fall asleep during team calls. Once relationships between team members have been developed then team members must concentrate on defining the roles and responsibilities within the team, establish a clear communication plan that fosters frequent and consistent communication between team members, identify a team strategy based on consensus, establish how team members will hold one another accountable, and ensure that team outcomes and expectations are clearly defined and shared by all team members. If this process is done then buy in more frequently happens amongst team members. But the accountability factor must be present because if the expectations are not set and the accountability is not present then team members will have the opportunity to disengage and no longer contribute to the project.

Through faculty observations and feedback, it was concluded that timing is yet another crucial element of any virtual team project. The longer the timeframe of the project, the easier it seems to be for team members to become disengaged or disillusioned with the project. The motivation wanes and interactions between team members become fewer and farther in between. The other team members then have to take time away from the project to concentrate on the disengaged team member. This hurts productivity and efficiency and derails the team's ability to work well with each other. Projects should not have a length greater than about 4 months.

Some final lessons that have been learned throughout this 4 year process and that truly affect the overall efficiency of a virtual team are: 1. time differences can greatly impact scheduling. When working virtually with members abroad, consideration of time differences and holidays are crucial to meeting the majority of the team member's scheduling needs. If this simple aspect is not taken into consideration, a team member may not feel valued and thus become disengaged from the project. 2. be flexible during technical issues. These will arise so be patient as well. Virtual meetings are obviously not as reliable as face to face meetings so flexibility to extend meeting times due to technical issues is a must. And 3. Outside distractions need to be avoided. Virtual meetings, can of course, be conducted anywhere. However, if conducted at home can prove to be an active environment for frequent interruptions. This can certainly detract from the focus of a meeting. Make sure the meeting time is free of any of these distractions.

As one student wrote, "this project was an excellent opportunity to explore complexity of building and developing efficient and productive international virtual teams." Providing an environment to students where they can build a team to work on a complex project, experience culture differences in a competitive environment, and understand how team members' background diversity aids in the process of accomplishing a task, is essential to efficiently creating and fostering international virtual teams in a business environment. The students are provided the tools necessary for aiding in the development of a well-performing virtual team as well as the tools for what can be improved upon in the future.

Cross-cultural virtual team interactions can be very challenging, particularly in situations where there has been no opportunity for team members to interact in person prior to commencing their work as a team. The cultural implications and logistical challenges that can arise from international teaming can further complicate these interactions. It is important to establish a rapport between team members early on, for all team members to understand and respect cultural differences, to have a clear communication plan, and to establish roles and expectations from early on in the teaming experience.

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RIDE-SHARING AND CAR-SHARING IN ROMANIA: WHAT CHOICES DO POTENTIAL USERS HAVE?

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Abstract: *Theorists and practitioners strongly debate the benefits and drawbacks of the sharing economy and of well-known companies such as Uber and Airbnb. The collaborative platforms and smartphone applications enhanced the development of new business models based on sharing rather than on traditional transactions. The goal of the article was to study the ride-sharing and car-sharing options available to the Romanian potential users, based on online platforms/sites and mobile applications. An exploratory research was organized to achieve objectives such as: (i) to identify the platforms/sites and mobile applications in the field of ride-sharing and car-sharing in Romania; (ii) to estimate their development stage; (iii) to pinpoint their sharing models and the challenges to users. The goal and objectives of this research rank it as the first systematic comparative study of ride-sharing and car-sharing models in Romania. The utility of such research is generated by the imperative to ensure user protection and by the disruptive effects of the sharing models.*

Keywords: *sharing economy, ride-sharing, car-sharing, collaborative platforms, mobile applications, sharing models, exploratory research, potential users*

JEL Code: M30, M31, L91, L86

INTRODUCTION

Recently, the sharing economy started challenging the extant business models and generating dilemmas for market regulatory bodies. The practice evolved in a rapid pace while regulation and research on this topic are still in an initial stage. Almost everything seems to have a "sharing potential" - from cars to houses or co-working spaces, from peer-to-peer lending to dog-sitting services and from high-end consumer goods to food delivery.

The dynamics of the sharing economy is intertwined with the evolution of the information aggregators in the online environment. The role played by such aggregators consists in matching supply and demand, in terms of specifications and prices. Airbnb and Uber are two major examples of aggregators that enjoy high level of awareness at almost global level. Even if they are new comers within the accommodation and transportation service sectors, they represent a tough competition for the existing operators.

The present article aims to explore the ride-sharing and car-sharing options available in Romania, from the perspective of potential users.

1. DEVELOPMENT OF THE SHARING ECONOMY: FACILITATING FACTORS

Sharing economy differs fundamentally from "classical" economy. Traditionally, the market model was based on the concept of ownership. The new model focuses on access to resources, not on ownership. Idle resources become the object of sharing.

Practitioners and academia use several terms in an interchangeable manner. Besides "sharing economy", other terms are also applied such as "peer-to-peer economy", "collaborative consumption", "collaborative economy" and "access economy". Several factors contributed to the emergence and development of the sharing economy:

a) innovations in the field of communication. The fast expansion of smartphones and tablets had a tremendous impact on the development of online communication. Similarly, broadband networks and cloud-based collaborative applications augmented the potential of digital business. Social networks enhanced the ability to easily communicate with friends, family members, as well as with companies and their brand ambassadors.

These innovations created an environment favorable to peer-to-peer communication.

b) recent economic and financial crisis. The strong negative effects of the crisis were experienced internationally by most companies and consumers. On one side, executives realized that already applied business models were unable to resist the new challenges. New business models could and should be crafted to face future opportunities and threats. On the other side, many individuals and households partially or totally lost their assets and witnessed the rapid erosion of their living standard. These realities showed that value had to be created and distributed in a different manner. Sharing economy promotes a new model that may provide benefits to both consumers and companies.

c) higher interest in sustainable development. An increased number of consumers and companies consider that sustainable development must become a priority. Thus, the intelligent use of the available resources is top requirement. The avoidance of resource wasting or of idle capacities may contribute to sustainable development. Resource sharing is equivalent to resource saving. Sharing economy may be a smart solution in a society faced with depleting resources and in search for a better use of resources.

d) shifts in social values. In the history of human society, owning assets was the aim of every individual and real proof of own achievements. Today, the values of young people tend to differ from those of the former generations. Many millennials prefer to share rather than to own. This is a strong incentive for the development of the sharing economy.

e) community membership. The new generations show a stronger need to belong to a community. Exchanging common assets within a community is in line with the lifestyles of millennials. Consequently, the sharing economy is able to satisfy multiple consumer needs, not only the basic ones, but also some of higher level.

f) increased trust in other customers and friends. Marketers are aware that many customers, especially the young ones, trust more the referrals and reviews of other customers or friends, rather than brand advertisements initiated by companies. The rating systems applied in the digital world rely on the input of the actual customers that have a direct influence on the choices made by potential customers. This trend enhances the likelihood of "trial and adoption" of the sharing economy model by consumers/users who care about the positive referrals and reviews of those who experienced its benefits.

g) lower entry barriers. Entrepreneurs aiming to exploit the potential of sharing economy enjoy lower entry barriers. For example, the information aggregators do not have to invest heavily in assets for the production/generation and distribution of value. They rely on the development of digital platforms and on the expansion of mobile communication. At the same time, the partnerships with different companies allow them to contractually shift the production, service and logistics responsibilities to other members of their network.

Experts underline that successful business models in the access economy will not be primarily based on the concepts of sharing and community. Instead, the types of benefits provided will matter, for instance convenience, efficiency, flexibility and freedom from obligations associated with ownership or sharing (Eckhardt and Bardhi, 2015). Thus, success depends on the ability to respond to evolving expectations and behavior of consumers.

In essence, sharing economy is not a new paradigm. Recently, several economic, technological, digital and social factors boosted its relevance for individuals and companies.

2. SHARING ECONOMY: STATISTICAL DATA AND EXAMPLES

In 2013, the estimated value of the sharing market was \$26 billion, while predictions envisaged an increase up to \$110 billion in the future (Cannon and Summers, 2014). The total investment in sharing economy start-ups exceeds \$12 billion worldwide (Deloitte, 2015). These data reveal two important aspects. Firstly, the sharing economy has already reached a significant size. Secondly, a dynamic evolution is estimated on the basis of the potential interest in renting the access to resources instead of owning them.

The concept of sharing disrupts the existing economic patterns. An example is Airbnb that registered an average of 425,000 guests per night, respectively 155 million stays annually. These figures exceed by 22% the same indicators for Hilton Worldwide that reached 127 million guests in 2014 (PricewaterhouseCoopers, 2015). Another example is provided by the automotive sector. A personal car is in movement only 3-4% of the total

available time, being parked the rest of the time (96-97%) (Bates and Leibling, 2012, p. vi). The increase in the use of personal cars by sharing this idle capacity with other users may strongly disrupt not only the existing taxi services, but also the manufacturing and selling of new cars. According to the experts of Ernst and Young, the disruption takes place not only at the business model level, but also in the tax, regulations and legal areas (EY, 2016).

One can expect that such a new model can be implemented and developed only by start-ups with a completely different philosophy of the relations between demand and supply. In fact, numerous start-ups emerged to turn into value the new opportunities. Nevertheless, market realities show that even existing major players became aware of the new trends and got interested in collaboration and sharing (Botsman, 2014).

An example is the Avis Budget Group, global leader of the vehicle rental services. In 2013, Avis acquired the company Zipcar very active in car sharing. In 2016, Zipcar provides 950,000 members on-demand access to 12,000 vehicles (Zipcar, 2016a). The company operates in over 500 cities and towns across Austria, Canada, France, Germany, Spain, Turkey, the United Kingdom and the United States (Zipcar, 2016b). Another example refers to the drugstore chain Walgreens (U.S.) that concluded a partnership with TaskRabbit (online marketplace for outsourcing errands) in 2014. During the flu season, the cold medication could be delivered by a TaskRabbit member directly to customer home (TaskRabbit, 2014).

According to Juniper Research, the revenues generated by the sharing economy platforms will triple in the period 2016-2020, from \$6.4 billion in 2015, to \$20.4 billion in 2020 (Juniper Research, 2016). Such estimates may have a two-fold influence. Firstly, new sharing initiatives will emerge in various industries. Secondly, the disruptive impact will stimulate existing operators to devise new business models and strategies.

3. RESEARCH METHODOLOGY AND FINDINGS

This article is based on an exploratory research which is the first systematic comparative study of ride-sharing and car-sharing models in Romania.

3.1. RESEARCH METHODOLOGY

The goal of the research was to study the ride-sharing and car-sharing options available to the Romanian potential users, based on online platforms/sites and mobile applications. In this article, the term "ride-sharing companies" refers to the companies that play the role of information aggregators. This role relies on the platforms and mobile applications owned by these companies. The term does not refer to companies that provide the actual transportation services and that are partners of the companies owning the collaborative platforms and applications. The term "users" refers to individuals only.

The topic of this research was selected based on the fact that Romanians display an increased awareness of, and interest in ride-sharing and car-sharing, due to factors such as: (i) emergence of ride-sharing and car-sharing models worldwide during the present decade; (ii) rapid expansion of several ride-sharing and car-sharing platforms/sites and mobile applications on international and global scale; (iii) increased access of potential users to ride-sharing and car-sharing services by means of mobile applications downloaded on their smartphones; (iv) interest of potential users to experience innovative services that generated worldwide media hype.

The development of ride-sharing and car-sharing services depends not only on user awareness and interest, but also on building preference compared to other traditional offerings and on stimulating the desire to actually use the new services. In this respect, ride-sharing and car-sharing companies must provide seamless customer experiences to potential users. In addition, the marketing communication initiated by those companies must be in line with the actual terms and conditions provided to the potential users of their services.

The study was triggered by the hypothesis that present ride-sharing and car-sharing services available in Romania raise several conceptual and practical challenges that may hinder the expansion of the sharing models. The research objectives were the following: (i) to identify the platforms/sites and mobile applications in the field of ride-sharing and car-sharing in Romania; (ii) to estimate their development stage; (iii) to pinpoint their sharing models and the challenges to users. The data collection method was the analysis of secondary sources available

on the Web (also including the files “Terms and Conditions”).

Findings of previous research studies on the same topic were not available. This research is the first systematic comparative study of ride-sharing and car-sharing models in Romania.

3.2. PLATFORMS/SITES/APPLICATIONS OF RIDE-SHARING AND CAR-SHARING IN ROMANIA

The first objective of the research was to identify the platforms/sites and mobile applications in the field of ride-sharing and car-sharing in Romania.

The research findings corresponding to the first objective are the following:

a) extant digital platforms/sites and mobile applications. Potential users may select from several ride-sharing and car-sharing platforms/sites and mobile applications which are active in Romania. Examples of such digital platforms (listed in alphabetical order) are: *autostopul.ro*; *blablacar.ro*; *getpony.ro*; *ia-macutine.ro*; *masinaplina.ro*; *mylift.ro* and *inmasina.ro* and *uber.com/ro*. Besides these, there are numerous other small sites providing similar services. Out of the enumerated players, *blablacar.ro*, *getpony.ro* and *uber.com/ro* provide mobile applications also. Most of the platforms/sites were set-up by Romanian entrepreneurs who developed no mobile applications.

b) country of origin. Ride-sharing has a long history as transportation practice used informally by Romanians, especially by commuters. However, the concepts of platforms/sites and mobile applications for ride-sharing and car-sharing were not created in Romania. These concepts originate in other countries, for instance in France (BlaBlaCar) and the USA (e.g. UberX). Several Romanian entrepreneurs sized the opportunity and developed similar concepts, even if some are more simplistic and have lower impact on potential users.

c) country where the company is registered. The companies owning the platforms/applications BlaBlaCar and UberX that are active in Romania are not registered in this country. BlaBlaCar services are provided by the company Comuto SA from Paris (France) (BlaBlaCar, 2016). The company UBER B.V. (UBER B.V., 2015) acknowledges the users from all the countries (except the USA and Mainland China), that UBER services are provided by the company UBER BV established in Amsterdam (the Netherlands). In addition, in Romania, the company Uber Systems Romania SRL was established in 2014, by the Dutch companies Uber International Holding BV and Uber International BV, under the CAEN code 8299 (“*other activities of support services for enterprises not classified elsewhere*”). According to the data provided by The Ministry of Public Finance, Uber Systems Romania SRL has a social capital of lei 17,580, is not registered as value-added tax payer and had three employees in 2015 (Ministry of Public Finance, 2016a). According to the same source, in 2015, the company reached total revenues of lei 1,528,909 and net profits of lei 55,320. The rest of the companies with collaborative platforms/sites of ride-sharing or car-sharing are established by Romanian entrepreneurs and are enrolled at the Trade Register in Romania.

3.3. DEVELOPMENT STAGE

The second objective of the exploratory research was to estimate the development stage of ride-sharing and car-sharing platforms/sites and mobile applications in Romania. Quantitative data are presented in the Table 1.

Firstly, this research showed that ride-sharing and car-sharing platforms/sites emerged in two “waves”. The first consisted in the initial attempts to develop ride-sharing sites, during the period 2008-2010. Examples are: *autostoponline.ro* (domain registered in 2008), *cumasina.net* (created in 2009), *iamanene.ro* (since 2008), *ia-macutine.ro* (since 2009), *123autostop.ro*. At present, *autostoponline.ro* is under construction, *cumasina.net* has content completely different from ride-sharing and *123autostop.ro* cannot be identified on the Web. The second wave started in 2012. The local entrepreneurial initiatives were followed by the entry of foreign companies: Uber BV in 2014 and Comuto SA in 2015.

Table 1. Examples of ride-sharing and car-sharing platforms/sites in Romania

Platforms sites ¹	Company owning the platform/site	Country where the company is established	Year of setting-up in Romania	Number of registered rides ²	Number of users in Romania (thousands)
0	1	2	3	4	5
autostopul.ro	Ghost Media SRL	Romania (Sibiu)	2013	1	2 ³
blablacar.ro	Comuto SA	France (Paris)	2015 ⁴	n.a.	n.a.
getpony.ro	Pony Car Sharing SRL	Romania (Cluj-Napoca)	2015	n.a.	2.5 ⁵
ia-macutine.ro	n.a.	n.a.	2009 ⁶	1	n.a.
iamanene.ro	iamanene Net SRL ⁷	Romania (Bucuresti)	2008	1	n.a.
masinaplina.ro	n.a.	n.a.	n.a.	2	n.a.
mylift.ro	n.a. ⁸	Romania (Cluj-Napoca)	2014	-	n.a.
4inmasina.ro	4 In Masina Project SRL	Romania (Bucharest)	2012	19	n.a.
uber.com/ro	Uber B.V.	Netherlands (Amsterdam)	2014	n.a.	70 ⁹

Note: **1** - Presented in alphabetical order. **2** – Number of potential rides for which users may register, as displayed on each specific platform/site, on 24 August 2016. **3** – Number declared by the company after eight months of activity (Manea, 2014). The figure is questionable due to the very small number of rides available on the site for potential users, for example only one on 24 August 2016 (Ghost Media, 2016). **4** – In March 2015, the ride-sharing services provided by Comuto SA became available to Romanians after the company bought the AutoHop platform that was present in Hungary, Croatia, Romania and Serbia (BlaBlaCar, 2015). **5** – Users registered for the mobile application GetPony (BMW Romania, 2016). **6** – The copy right date of the file “Terms and Conditions” (ia-macutine.ro, 2009). **7** – Company name as declared in the file “Terms and Conditions” (iamanene.ro, 2008). However, at present, the unique code for fiscal identification declared on the site corresponds to another company, respectively Total Tires SRL (Ministry of Public Finance, 2016b). **8** – The online platform is operated by a group of people from Cluj, represented by Vlad Balan and Marcel Ciotlan (mylift.ro, 2015). **9** – Number of users who downloaded the mobile application in the period February – December 2015 (Uber Systems Romania, 2016). **n.a.** – Data not available.

Secondly, the number of actual users of each platform/site and mobile application was sought in order to evaluate the present development stage. However, data about the number of actual users are scarce. In Romania, Uber declares that 70,000 users downloaded its mobile application during the period February-December 2015 (Uber Systems Romania, 2016). Pony Car Sharing SRL reported 2,500 persons registered for the GetPony application (BMW 2016). In the future, the competition among platforms/sites and mobile applications may increase in terms of the number of registered and active users. For example, Comuto SA aims at achieving the target of 3 (three) million users by 2017-2018 (Nita, 2015).

Thirdly, the number of future rides announced by car drivers was used as “proxy” for the intensity of the ride-sharing on a specific collaborative platform/site. For example, on 24 August 2016, the number of future rides for which potential users could register was: 19 (nineteen) on *4inmasina.ro*, 2 (two) on *masinaplina.ro*, 1 (one) on *autostopul.ro*, *ia-macutine.ro* and *iamanene.ro*, none on *mylift.ro*. These figures indicate low levels of activity for most of the online platforms/sites. In contrast, Pony Car Sharing reported 16,000 registered rides during the period July 2015 – July 2016 (BMW Romania, 2016).

Fourthly, in the case of *mylift.ro*, there is only a beta-version of the site. This may also show that a low level of sharing activity demotivates site operators.

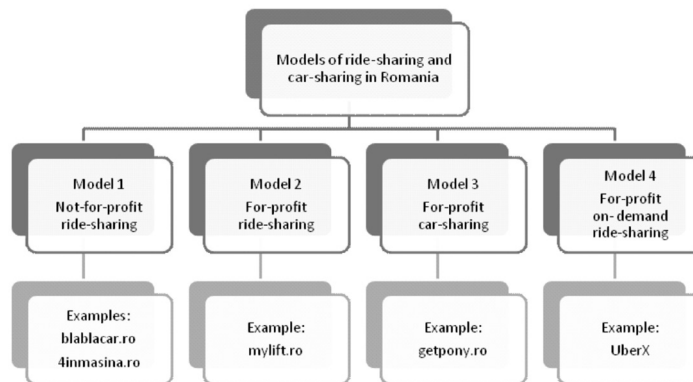
Finally, the development stage is characterized by a fragmentation of the providers of ride-sharing and car-sharing services. Besides those presented in the Table 1, there are several online ride-sharing communities and Facebook accounts that display low levels of activity. In addition to the platforms/sites created by Romanian entrepreneurs, there are two large international players. There are also ride-sharing sites registered in the European Union, which provide rides between the Member States.

Based on these research findings, one can estimate that the stage of development of ride-sharing and car-sharing in Romania is preliminary. Ride-sharing and car-sharing are just in an emerging phase in this country and will very likely show few signs of rapid growth on short term, except for the targets set by the international players.

3.4. SHARING MODELS AND CHALLENGES TO USERS

The third objective was to pinpoint the sharing models of the ride-sharing and car-sharing platforms/sites and mobile applications existing in Romania and the challenges to users. Four main models were identified in Romania (see Figure 1). The models are defined in function of the services provided to users and of the focus on either cost covering or profit.

Figure 1. Main models of ride-sharing and car-sharing in Romania



The platforms/sites *autostopul.ro*, *ia-macutine.ro*, *iamanene.ro* and *masinaplina.ro* were associated with none of the four models because the information available in their “Terms and Conditions” files does not specify if drivers should charge only to cover costs or if they are allowed to make profits. In addition, most of them do not define precisely the services provided. These platforms/sites may be integrated in the “Model 2: for-profit ride-sharing”, in the absence of a statement relative to the collaboration to cost coverage.

The main features of each model are the following:

a) Model 1: not-for-profit ride-sharing. The platform is an information aggregator between users/passengers and drivers. Users share the rides provided by drivers. This is a sharing model because the user and the driver have a common destination, the user pays a part of the driver’s costs and the common objective is to save money. According to the “Terms and Conditions”, the drivers are not allowed to make profit from the transportation service. The driver uses a personal car and the transportation service is not a commercial activity. This model is the essence of the sharing concept.

b) Model 2: for-profit ride-sharing. The model is similar to the model 1, except for the commercial character of the transportation activity. The contractual relations are established exclusively between the drivers and the passengers. Thus, drivers may set prices above costs and generate profit.

c) Model 3: for-profit car-sharing. In this case, the concept of “sharing” differs substantially from the previous two models. Sharing refers to cars, not to rides. The car-sharing company provides registered members the possibility to drive an automobile from the company’s fleet, during a specific time interval. The customer is the driver and must have a driving license. There is no common destination with another person like in the models 1 and 2. The company obtains profit by charging membership fees and fares for car use. This model resembles car renting.

d) Model 4: for-profit on-demand ride-sharing. This model resembles taxi services rather than "traditional" ride-sharing. The platform is made available by a company that is an information aggregator which enables users to arrange and schedule transportation with independent third parties. The platform owner and the providers of transportation services make profits. The third parties may be professional drivers or persons with other specializations, who provide transportation to get additional revenues. The supply is triggered in real-time by the demand of the platform user (passenger). The platform (such as Uber) is the one that establishes charges and applies dynamic pricing, not the third parties.

Most of the models share several similarities. Examples are the following: (i) information aggregation role played by the platforms/sites; (ii) requirement to each member of the "community", either driver or user, to set-up an account providing personal data; (iii) rating system for the evaluation of drivers and eventually of users; (iv) direct contractual relationships between drivers and users, the platform being just a facilitator of these relationships etc. At the same time, the files "Terms and Conditions" displayed on the platforms/sites reveal serious challenges to users. Some of them are presented hereinafter:

a) lacunar "Terms and Conditions". There are platforms/sites that do not provide definition of the services. They also do not provide information about all the responsibilities relative to many aspects of the relationships they facilitate.

b) data protection. There is no information that the companies operating the platforms are registered as personal data operators according to the Romanian laws and regulations. Simple statements relative to data confidentiality and protection may be less relevant.

c) "black" market. Some for-profit platforms may put users in conflict with the Romanian laws and regulations. The reason is that some transactions belong to the "black economy", irrespective of the fact that the amount paid by the user partially covers the costs of the driver or generates actual profits.

d) applicable law. In case of conflict, the users of some platforms will realize that "Terms and Conditions" indicate that legislation from another country than Romania is applicable. For instance, in the case of Uber services, if mediation will not be effective, the Dutch legislation will apply.

In the near future, these challenges to users will definitely be addressed by the leading platforms/sites of ride-sharing and car-sharing. The rest will follow progressively.

4. CONCLUSIONS AND RECOMMENDATIONS

The findings of the exploratory research confirm the initial hypothesis and lead to several conclusions:

a) differences between the "traditional" concept of sharing and the practice of sharing. Traditionally, the essence of the sharing concept is the collaboration of persons in order to accomplish a common practical objective such as reaching a destination in a planned day and to save money by sharing the costs of the ride and to generate no profits. In Romania, the practice of ride-sharing and car-sharing displays at least four main models, some of them "stretching" the "sharing" over its original meaning. The two determinants of the differences are the profit orientation and the fact that drivers may also be professionals who carry out commercial activities, responding in-real time to the demand expressed by customers. Thus, model 1 materializes the essence of sharing, while model 4 is closer to the taxi services and far from the original meaning of sharing.

b) innovative concept of information aggregation. The classical practice of sharing involved only persons that participate in peer-to-peer collaboration. At present, in Romania, ride-sharing is reinvented due to the new communication technologies. The relationships involve three parties: the driver, the passenger and the platform owned and operated by a company which plays the role of information aggregator.

c) impactful marketing approach. Firstly, the platforms/sites and mobile applications for ride-sharing and car-sharing provide members and users multiple benefits such as increased convenience, time and money savings. Secondly, all platforms require the input of personal data from both users and drivers. Other providers of services or users of the platform may get access to such data. This practice may help participants identify and select the right options. Thirdly, the leading platforms apply rating systems in order to increase trust and facilitate choices. For-example, the users of the ride-sharing services may evaluate the driver and the ride-

sharing experience, while the driver is also invited to rate each user with which he/she interacted. The ratings are displayed on the platform and may be seen by other users and drivers. Multiplying effects are expected. Drivers may decide not to consider the ride-sharing request of a user that received low rating. Similarly, users will carefully select the drivers based on the ratings.

d) issues that require further consideration. Ride-sharing and car-sharing models are in a preliminary stage of development in Romania. From a user perspective, several critical aspects exist and will probably be addressed by companies and regulators to the best interest of consumers. The challenges to users probably relate to the early stage of evolution. Some of the challenges are the following: unclear and incomplete terms and conditions set by the platform owners and operators; lack of information about the name and coordinates of the company owning the platform; unclear definition and description of services; actual responsibility of the platform/site for the protection of personal data in relation to the Romanian laws and regulations; risks assumed solely or mostly by user; reference made by the terms and conditions to legislation from other countries than Romania for conflict resolution etc. The entry in a growth stage will force information aggregators to address these issues in order to also participate in the sharing of risks and responsibilities. Competition between the alternative platforms/sites and mobile applications could motivate players to reconsider such issues from a user perspective.

Based on the findings and conclusions of this research, decision makers from the ride-sharing and car-sharing sector are recommended to refocus on three cornerstones: (i) essence of sharing; (ii) user's best interest; (iii) memorable customer experience able to trigger positive multiplying effects by favorable testimonials. Researchers are recommended to investigate the reaction of the actual and potential users to the sharing models and identify the factors that favor or deter the use of ride-sharing and car-sharing services.

Will the ride-sharing and car-sharing models become mainstream in the twenty-first century, in Romania? Will the underutilized resources be more efficiently exploited in the new models? Is this a fad or a lasting pattern of thinking and action? Users will be those who will decide and very likely ... the regulating bodies.

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MEDICAL ERRORS AND THEIR COVERAGE THROUGH INSURANCE POLICIES

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MEDICAL ERROR

The medical error is a concept designed for medical staff and their patients; progressively the entire sanitary economy included in the vocabulary those terms. From its production suffers the patient, sometimes even deathly. This concept was firstly used more often especially in the second half of 20th century, together with the fast development of sanitary economy and systems relationships.

The medical error is an incorrect or incomplete diagnosis of a disease, lesion, syndrome, behavior, infection of any other pain. This simple definition offers a wide image of the problematics of contemporary medical act. There are many definitions of medical error. The definitions of medical errors are the subject of discussions between science people since there are many types of medical errors – from easy errors to serious errors – and the causality is often incorrectly determined even by the specialists. The specialty literature tries to extend the concept to the sum of medical professions.

There are of course obvious statistics in the field. However, there are some difficulties in data collection because the concept is a complex one, combining both medical, clinical and administrative information. There are lots of cases not communicated either by the hospitals or by the patients. For example, the statistics of the study Health Grades based on AHRQ data (Agency for Healthcare Research and Quality), were based on administrative data, not on clinical data and they forgot pretty much the results multi-causality.

In the year of 2000, a new study was published, "To Err Is Human", carried out by the Institute of Medicine in Washington, mentioning that the problem in medical errors does not consist of bad people in sanitary system – but in the fact that good people work in bad system that has to be made safer.

The office of Medical Inspectorate from Veterans Administration (V.A.) in the United Kingdom reported a total number of 2027 medical errors from June 1997 until December 1998, of which more than 700 lead to patients' accidental deaths or even suicides.

Not any error that a medical doctor or a nurse does is considered malpractice, i.e. incorrect or negligent treatment applied by a medical doctor to a patient producing any kind of damages in relation to the affection grade of physical and psychic capacity. Not any medical mistake leads to death. For example, the case in which a medical doctor prescribes on the prescription another medicine than the correct one, with similar name, but the pharmacist figures this out and delivers to the patient the necessary medicine. By the circumstances force, the medical doctor's mistake had not a negative effect on the patient.

The problematic of medical error is very complex; immediate preoccupation of phenomenon follow up and minimization is also given by the actual crisis of financial markets starting to get even wider both in Europe and in America, affection one way or another the financing of medical system. In parallel, on legislative level, a higher pressure can be ascertained from the law that widens the private insurance system in order to complete the public one.

FACTORS LEADING TO THE INCREASE OF NUMBER AND IMPORTANCE OF MEDICAL ERRORS

The specialty literatures highlights two reference studies about medical errors: Harvard Study and Australian Study. Those studies are the basis of any analysis of medical errors.

Therefore, as a summary, the Harvard Study of medical errors follows the establishment of estimation level of iatrogenic lesions appearing in hospitals.

The Australian Study was inspired from the American one and highlights the importance of the number of side effects that could be avoid because both this category of effects and the possible ones ("that were on the verge") implies medical errors.

The medical errors imply huge expenses: for example, the Harvard Study quantifies approximatively 45,000 deaths annually and approximatively 1,000,000 of additional lesions (iatrogenic, i.e. caused by the medical doctor or by the medicines).

The factors leading to the increase of number and importance of medical errors are different enough and have the tendency to grow together with the development of contemporary society. Among those, we would like to mention:

Errors regarding the medication prescribed by the medical doctors

There are few scientific studies that looks into medication errors.

However, in the countries developed from an economic point of view, more than half of the number of people taking medicines, obtain those medicines upon a medical prescription¹. For example, in Australia, around 95% from the population uses medicines prescribed by the doctor upon medical prescription.

Specialists in sanitary economy appreciate that, in general, the errors of family medical doctors are caused by the following factors:

Inappropriate medication	30%	Overdose	8%
Prescription error	22 %	System deficiencies	7%
Administration error	18%	Others	6%
Inappropriate dose	15%		
Side effect	13%		
Allergic reaction	11%		
Issue error	10%		

The errors appear mostly in situations when the medical doctors are not experienced or when new medical procedures are introduced.

Medication errors in hospitals

Medication errors in hospitals were studied more deeply because of the use of statistics data, even incomplete.

In a study carried out in the USA, the most frequent cause of medication errors in hospitals (22%) was the medicine's lack of familiarity, for example, not knowing the medicines interactions, incorrect doses, incorrect combination of more medicines and too fast injections.

People ageing

Medium and long term key challenge for national economies are related on one hand to the implications regarding people ageing and its health level, meaning its sensitivity to different diseases on age categories in general and on the other hand the apparent incapacity of controlling the prices of medicines and medical performances.

The people ageing is the result of the constant increase of life expectancy and of the decrease of natality rate in relation to the high level reached in the '60s.

For the economies of developed countries, the impact of life expectancy increase is permanent, pandemics and wars having now other manifestation form.

The people ageing determines an increase of number of people reaching the retirement age and who have a fragile health due to their jobs, nutrition, pollution, stress, age in general and genetic factors. The retirement of the baby boom generations will increase this percentage because the generations that are about to retire are followed by generations less developed. Similarly, the improvements of life expectancy will directly determine the increase of number of people getting retired because the people's life will be longer.

Old and the sickest people, especially those with serious affections. Therefore, there is a high probability to find among those people a high level of medical errors. Sometimes the medical doctor can pay less attention to those people, knowing that according to their diseases they have not a long time to live.

¹ Joanna Briggs Institute – Strategies to reduce the medication errors in elderlies, published in the Magazine Managment in Sanatate (Health Management) in the year of 2007.

Diagnosis errors

The medical staff carries out incorrect examination, misinterpret the symptoms said by the patient. Those errors are hard to be quantified and have a high cost.

Harvard Foundation that following the phenomenon through its direction CRICO Strategies for four year, highlighted the fact that 47 per cent of the trial cases against medical doctors from the emergency care sections are related to this reason.

The diagnosis errors are related to the treatment errors, including the medicine treatment.

Overworking and the tiredness of medical staff

The error rate significantly increases after more than 8 hours per day worked by a medical staff or after more than 40 hours a week.

Disease complexity, lack of information related to the patient's medical history etc.

There are a lot of factors contributing to the appearance of medical errors. Those factors start from the child's birth (lack of oxygen at birth, fetus mechanical accidents, etc.) and are definitively concluded at older people.

MEDICAL ERRORS COVERAGE THROUGH INSURANCE PRODUCTS IN ROMANIA

Any insurance company has in its portfolio also this type of malpractice insurance products to cover the professional risks; it is done according to the usage through the payment of an annual prime with an amount insured by mutual agreement with the insurant, and the malpractice event is covered and compensated according to many criteria and possible risks: for example, medical doctors, according to their specialty, experience, level, hospital, urban or rural environment.

The malpractice concept is very clearly defined in Romania: the malpractice supposes a professional error committed while exercising the medical doctor's attributions and that generate prejudices on the patient. Romania has no experience in using this system. Practically, we can talk about this concept after the year of 2000 when a series of wrong medical acts became of public notoriety.

In the Occident, an army of lawyers lives obtaining huge amounts for the patients who are not satisfied by the treatments in hospitals or by other medical sanitary services. By contrast, in Romania, for serious medical errors compensations are not paid and there are no guilty people.

People are either discouraged by heavy legal procedures or they don't know their rights; Romanian people ask seldom and usually in very serious cases for compensations for the damages suffered due to bad treatment applied in hospitals. The mass media unfortunately present only the cases with tragic final. In reality, there are much more situations of medical errors that are overlooked and not registered in the statistics.

Exactly in order to protect themselves from eventual compensations due to the patients affected by a professional error, the medical doctors are obliged by the law to sign malpractice insurances. This type of policies should also protect the patients offering them the certainty that they could receive fast the compensation, in the form of an amount of money considered enough to restore their health. But until now, the protection functioned only in theory, the insurance indemnity corresponding to the patient was not carried out. From a financial point of view, there is only one cash flow, from the insurant to the insurer.

In order to receive the money, the victim has to wait a final and enforceable sentence in court, and in order to establish the medical guilt, the College of Medical Doctors is usually consulted. Due to heavy procedures, thousands of processes stay for many years pending in courts, and the guilty medical doctors are not sanctioned with more than the suspension of the right to practice for a couple of months. Meanwhile, having only receipts, without payments to carry out, the malpractice insurances remain a business with a far too high stake to be left to chance.

The insurances companies authorized to sign mandatory insurance policies for civil liability in medical field usually exclude among the risks insured on this type of policies, eventual moral damages the medical doctors of whom professional guilt was decided by the legal courts are obliged to pay to injured patient. The insurers' motivation is the fact that the money value of those damages can barely be quantified and the legal resolutions

in this matter are mostly arbitrary.

The precedent of the first compensation is the case of NaumCiomu, a medical doctor in Clinical Hospital of Panduri, of which intense media publicity obliged the authorities to promise that the investigation will not endlessly be extended, the medical doctor being convicted on 9th of January 2007 at one year of suspended jail and also at the payment of 125,000 euro of moral damages and 9,866 lei material damages, for aggravated injury. The stories of the victims suffering upon a medical error have plagued the first page of the newspapers in the past few years.

In the last three years, the College of Medical Doctors in Romania took only one decision to withdraw the right to medical practice upon a professional error. "In the year of 2005, only one decision to withdraw the right to medical practice was given, and in the years of 2006 and 2007 none", declared the College representatives. Furthermore, according to their statements, there are now 104 files from 2007 and 9 files from 2006 still pending.

For less serious cases than the ones mentioned above, in the United States or in Occidental Europe, the victims ask and usually receive compensations of hundred thousand or even millions of dollars. In Romania, ambiguous legislation and heavy procedures determine many people to quit this right.

Medical doctors, pharmacists, nurse and also medical institutions are obliged to sign malpractice insurances for civil liability so as the patient could be compensated if injured by medical doctor's guilt. The insurance is mandatory for a minimum amount.

The medical doctors who want to be sure that in case of a trial, they are not obliged to pay much higher compensations, can also sign policies over this level, thing that almost never happens in Romania. The cause is both the low salaries from medical system and mostly the fact that until now there was no precedent of a huge compensation decided in court. The maximum insured amount is of 150,000 euro, but the number of malpractice verdicts given annually is less than ten. The procedure is heavy, the College of Medical Doctors has to decide on the medical guilt, the malpractice term is not very clearly defined in the legislation and people don't always know to ask for their rights.

From this situation there are also some winners. The insurers in Romania receive circa three millions euro each year for malpractice insurance policies, considering the fact that the first average is of five-seven euro for nurses and 50 euro for medical doctors, and the damages paid cover the legal expenses and hospitalization costs, but not the moral damages suffered by the patient. The money was easily received from providers of medical and pharmaceutic services obliged to sign those policies, and there isn't perspective of paying some victims' compensations in the near future.

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