

The E-business Strategy Management

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The intensive use of Information and Communication Technology and that of knowledge leads the organization towards another method of doing business (electronic business, mobile business, i-business) and towards new organizational patterns (virtual organizations, network organizations). Within this context, each organization must assure an adequate management for each phase of the transformation. Taking into account the diversity of electronic business patterns, the theory at the base of each of them, the different patterns of measuring performance and also the strategic control instruments, we present a development environment of an evaluation and control system to assist managers in formulating, optimizing and implementation of e-business strategies, in operations management and monitoring of performance.

Keywords: *e-business, e-strategy, performance measurement, Balanced Scorecard, control system.*

Introduction

Taking into account the dynamic process of economic development based on knowledge, the global politics, the main lines from e-Europe Action Plan, IST Programs (Information Society Technologies) of The European Commission, more and more organizations include integration strategies of new types of business or migration towards new organizational forms. For the success of integration or migration, adequate strategies, as well as monitoring and optimization systems are necessary in order to offer guiding lines for strategy formulation, performance measurement and manipulation of complex decisions in an efficient manner.

The necessity for such a system appeared due to:

- The need of measuring the progress of the organization in order to fulfil the strategic objectives by transforming the objectives and the vision into levels of performance of indicators;
- The need of identifying the expectations of stakeholders and of measuring the ability of the organization to fulfil such expectations;
- The necessity of some indicators to transform the strategy, mission and vision into tangible measurements used for taking decisions;
- The complexity and continuity of the process of gathering and analyzing the data

from the evaluation system;

- The need for a system to coordinate and correct the changing process.

Having as starting point the research achieved in the domain of measurement and control of strategy performance of a business^{1,2,3,4,5} the following conclusions are gathered:

1. The objectives of business strategy must concentrate on the invention of the value, on optimizing business performances and to line up to the global strategies of the European Union that have in mind the development of knowledge based economy;
2. When formulating the business strategy, the following must be taken into account: the

¹ Wongrassamee, S., Gardiner, P. D., and Simmons, J.E.L., (2003): Performance measurement tools: the balanced scorecard and the EFQM excellence model, *Measuring Business Excellence*, Vol. 7, No. 1, pp. 14-29.

² Pun, K. F. and White, A. S., (2005): A performance measurement paradigm for integrating strategy formulation: a review of systems and frameworks, *International Journal of Management Reviews*, Vol. 7, No. 1, pp. 49-71.

³ Youngblood, A. D. and Collins, T. R., (2003): Addressing balanced scorecard trade-off issues between performance metrics using multi-attribute utility theory, *Engineering Management Journal*, Vol. 15, No. 1, pp. 11-17.

⁴ Rickards, R. C., (2003): Setting benchmarks and evaluating balanced scorecards with data envelopment analysis, *Benchmarking: An International Journal*, Vol. 10, No. 3, pp. 226-245.

⁵ Wen, H. J., Lim, B., and Huang, H. L., (2003): Measuring e-commerce efficiency: a data envelopment analysis (DEA) approach, *Industrial Management and Data Systems*, Vol. 103, No. 9, pp. 703-710.

type of business, organizational structure and there must be used performing analysis and simulation systems that have as basis the created knowledge volume;

3. Monitoring systems (evaluation, control, optimization) are critical for the success of business strategy and these are a few and do not always match with the requirements of the organization;

4. A monitoring environment of the strategy is necessary so as to transform the strategic objectives into performance measurements, incorporating the BSC approach adapted to the present environment, as well as optimiza-

tion patterns of financial and non-financial performances.

Models of e-business strategies

Starting from the most used model for the implementation and control of an organization's strategy, BSC developed by Kaplan and Norton and taking into account previous researches, we suggest the development of an integrated measurement and control environment of performances that is adapted to the context of knowledge economy (figure 1).

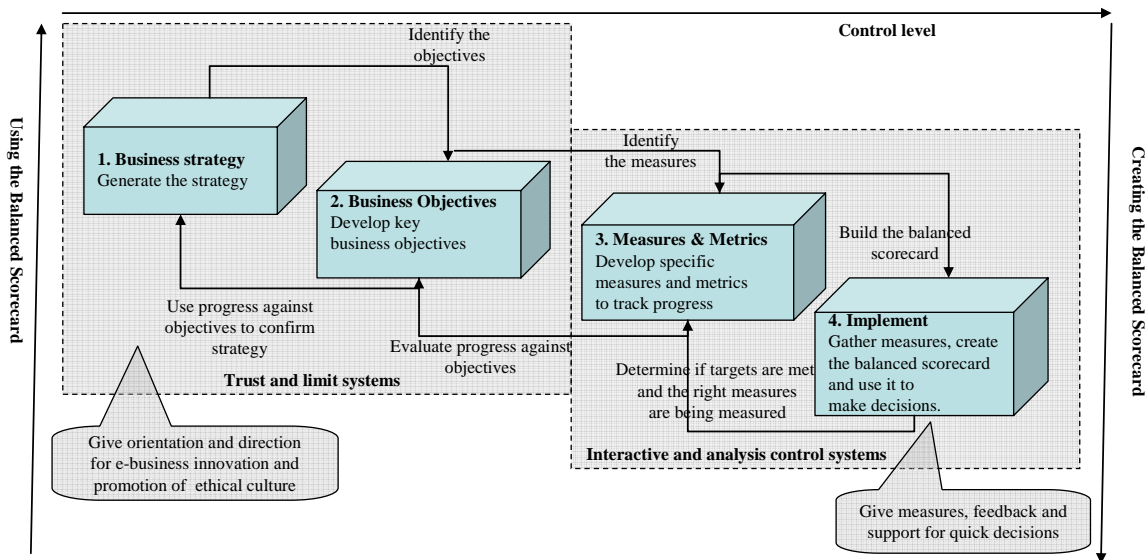


Fig.1. Environment for the evaluation and control of e-business strategies

Adapted after Accenture 2000 [Deking, 2001]

At the creation of the model have to be established the objectives of the business and the metrics according to the four perspectives of the BSC model, adapted to the requirements of the economy based on knowledge; the model is to be used and improved with the help of control systems situated on each level. Within the model are used financial and non-financial indicators which measure the performances of internal and external factors, tangible and intangible which monitor the formulation, implementation and optimization of the strategy. The system of performance measurement must be performed by the managers from the top level of the organization and built in such a way so as to assure balance between the perspectives of

the system (figure 2).

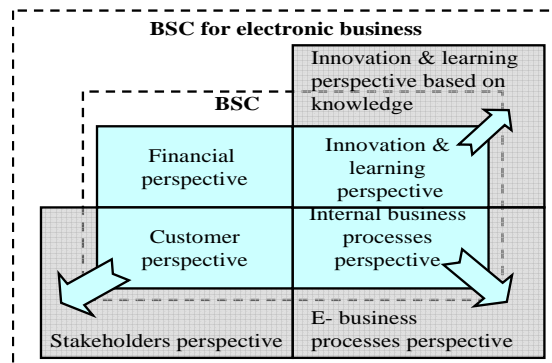


Fig. 2. BSC for electronic business

Financial perspective. The financial perspective supposes establishing the mission, the

financial objectives and that of the indicators which measure the success of these. When establishing this, there must be taken into account the existing or planned IT level in the organization, as well as the global financial markets with which the organization will be in contact.

Learning and increase perspective based on knowledge. An important point for establishing the objectives and indicators from this

perspective is represented by the domain of organization knowledge. It is important that the knowledge strategy and the knowledge management be lined up to the business strategy [Deking, 2001]. The business strategy must be able to be transformed into knowledge actions. When establishing the objectives and indicators, at least the following aspects must be taken into account (table 1).

Table 1. Key points from the learning and development perspective based on knowledge

Key points	Necessity	Importance
Knowledge	Establishing: - the level of existent knowledge; - the level of using new informational technologies in the management of knowledge; - the use of knowledge in formulating and implementing the strategy within the strategic initiatives	- fundamentation of decisions; - creation and knowledge management.
Culture	- creation of a global, ethical culture lined up to the strategy of the organization	- continuous improvement of the performance; - elimination of the cultural barriers between the stakeholders involved.
Capabilities	Establishing: - the professional level of those involved; - the necessary abilities within the organization; - the use of IT in order to acquire new information, abilities; - the recompensation politics.	- identification of the necessary capabilities for fulfilling the strategic objectives of the organization

The perspective of stakeholders. In the context of knowledge based economy, a system for performance measurement based only on internal factors of the organization, is not a viable system. During the phase of establishing the strategy, the following must be done:
- the main stakeholders of the organization be identified;
- the objectives of the organization for each stakeholder;
- establish the measurement indicators of ob-

jectives' performances;
- establish the tasks that stakeholders have to fulfil;
- establish the measurement indicators of stakeholders' performances.
The mission of the organization is to create an optimal value chain for each stakeholder. When establishing the objectives and the indicators, at least the following aspects must be taken into consideration (table 2).

Table 2. Key points from the perspective of stakeholders

Key points	Necessity	Importance
Stakeholders	- identification of stakeholders and the level of knowledge, abilities; - identification of stakeholders requirements	Determination of the organization value chain.
The value proposal offered to each stakeholder	- the IT degree used at communicating the value; - the IT level used at the creation of intangible value; - evaluation of the value offered to stakeholder; - value level created through the suggested strategy.	Determination of the success for strategic initiatives
The perspective of stakeholders	The stakeholders satisfaction level, the level of rewards and contributions determined by the IT integration	Measurement of the strategy success.
Communication with stakeholders	- integration level; - efficiency and efficacy level	Fundamentation of decisions

The perspective of electronic business processes. The mission consists in creating value (value for products/services, processes) for sustaining the competitive advantage. When establishing the objectives and performance indicators, from the point of the perspective of electronic business processes, managers must take into account the following (table 3).

Table 3. Key points from the perspective of electronic business processes

Key points	Necessity	Importance
E-business pattern	- analyses of the value level from the business pattern; - the IT level necessary for reinventing the pattern.	Formulating the business strategy
The infrastructure of the e-business pattern	- the IT level necessary to create the infrastructure; - standardizing degree.	Strategy implementation
Key processes	- analyses of the efficiency and efficacy of key processes; - the IT degree necessary for the integration of key processes within and outside the organization.	Fundamentation of the decisions regarding the creation, improvement, elimination and externalization of some processes.
Management of operations	- the IT level used for the management of operational risks; - the necessary IT for automatic management of operations.	Establishing the vulnerability against the risks caused by the arrival of new informational technologies and by the transformation of the market structure
Management of stakeholders	- the IT level used within the methods of selection, retaining and attraction of stakeholders; - the IT necessary for the automatic management of relations.	Development and expansion of the organization
Integration within the electronic environment	- integration level.	Integration level compared with that of the competitors
System functionality	The contribution level of the system at the value offered to stakeholders, analyses of electronic flux.	System performance on the market compared to that of the other competitors.

Example of measurement and control model of an e-business strategy present an example of elaborating a measurement and control pattern of an e-business strategy. Having as basis the above written, now we


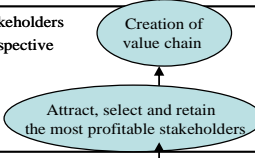
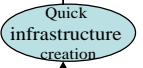
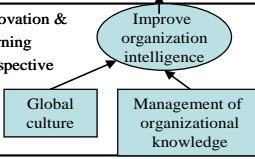
Strategy		Balanced Scorecard			Action plan	
Theme: Integration of an electronic business	General objectives	Metrics	Target	Initiative	Budget (lei)	
Financial perspective 	-increase efficiency of funds usage; - new income sources; -increase opportunities, -Invention of value.	-market value -revenue -opportunities -new value	-25% - 20% - 5% - 5%			
Stakeholders perspective 	-creation of value chain; -attract, select and retain the most profitable stakeholders.	-rate of profitability -rate of retain -rate of lose	-increase 15% annually -increase 10% annually -decrease 5% annually	-Stakeholders relationship management system -Stakeholders training programs	-xxx -xxx	
E-business processes perspective 	- quick infrastructure creation.	- duration	- a month	-Adjust time optimization	- xxx	
Innovation & learning perspective 	-Improve organization intelligence; -Creation of a global culture; -Management of organizational knowledge storage.	-Systems availability -Suggestions, ideas -Cultural conflicts -availability - turn account	-100% - increase 5% annually - decrease 2% annually -100% - increase 5% annually	-Programming and tracing systems -Communications program -Online training and communication	-xxx -xxx - xxx	
				Total budget	xxx	

Fig. 3. Integration strategy of an electronic business

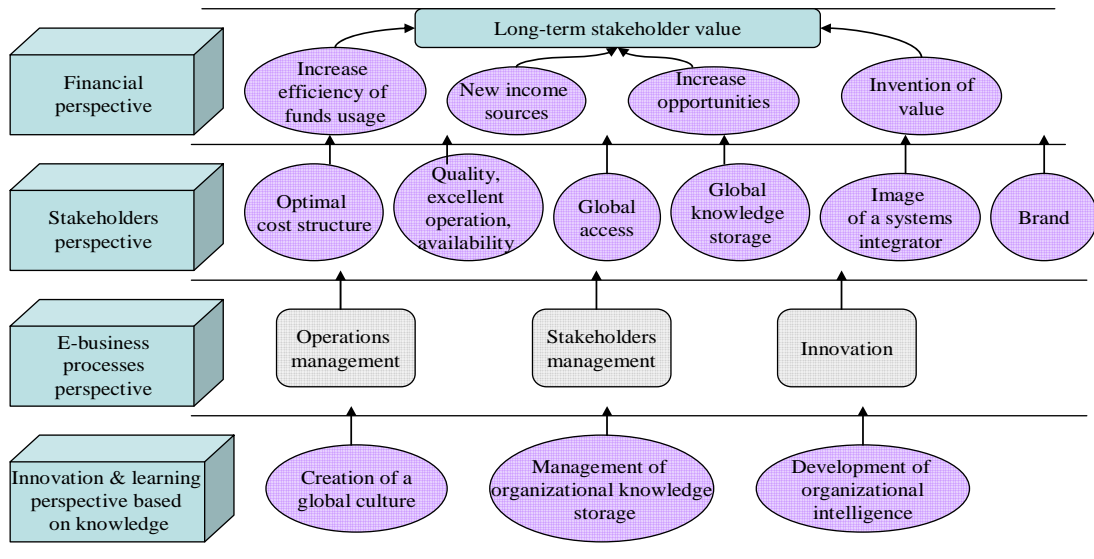


Fig. 4. The map of the e-business strategy

Table 4. Establishing the objectives and metrics from a financial perspective

BSC – financial perspective	
Objectives	Metrics
1. Efficiency increase of funds usage:	% of increase exit units based on the same entrance units
- costs decrease	% of reducing the costs on the exit unit
- efficient use of existing resources	- NPV of new projects/total of investments; - % of increase output units /time unit;
2. New income sources	% annual of income increase
- from new products/services	% of income from new products/services from the total of income
- new distribution channels	- income obtained from attracting new clients; - % of income increase obtained from increment sales toward existing clients.
3. Opportunities increase	% of income increase obtained from valued opportunities
- increase of valued (used) opportunities	% of opportunities increase that were valued from the total of existing ones
- usage of new opportunities	Income obtained after using some new opportunities offered by the virtual environment
4. Invention of value	- % of income increase caused by value invention - investment depreciation rate owed to value invention

From the perspective of stakeholders, in order to establish the objectives and performance indicators, two dimensions are taken into account (table 5).

Table 5. BSC from the perspective of stakeholders

Dimension Context	Dimension of organization		Dimension of stakeholders		
	Stakeholders	Objective	Indicators	Functions	Indicators
Intern	Owners	- profitability increase; - market value increase.	- % of profitability increase - % of market value increase.	- capital; - decision.	- % profit increase; - % of market value increase.
	Employees	- creation of an efficient system of recompensation and promotion.	- % of circulation of labor force within the organization; - no complaints.	- human resource	- % of salary increase; - % of satisfaction increase.
Extern	Clients	Attracting and maintaining the most profitable clients by: - inventing/creating the value offered to the client; - lowering of costs; - quality raising.	- % of online clients/total of clients; rate of client loss; % of profitable and non-profitable clients; - profitability rate of clients; - % of complaints, of products/out of order services.	- financial resource - indirect support in decision making.	- % of satisfaction level increase
	Suppliers	• Efficiency increase of the supply chain by: - lowering the costs;	- acquisition cost as % from total cost, % of online acquisitions; - period of time from issuing the	- financial resource - human resource - intellectual resource	Satisfaction obtained from transactions

	<ul style="list-style-type: none"> - real time orders; - creation of high quality supply channels. • Utilization of new ideas from suppliers • Externalization of non-profitable activities 	<ul style="list-style-type: none"> order up to receiving, % of deliveries in due time, % of delayed orders, % of orders delivered directly at the process of production; - % of flawed products/services, % of perfectly delivered orders, % of suppliers qualified to deliver without inspection; - no. of innovations from suppliers; - no. of externalized activities, no. of relationships with the suppliers of the externalized activities, performance brought by act externalization. 		
Operational partners	Development of some profitable partnerships;	<ul style="list-style-type: none"> - % of profitable partnerships; - partnership profitability. 	<ul style="list-style-type: none"> - contracts management - mechanisms of identifying and solving disputes - relationships management, transactions 	Satisfaction level
Strategic partners	<ul style="list-style-type: none"> - Increase of the usage degree of the electronic business by the partner - achieving an efficient communications without errors 	<ul style="list-style-type: none"> - no. of online accessing of the business, no. of newly created alliances, - % of communication errors 	<ul style="list-style-type: none"> - creation of new alliances - market research - macro-resources planning - development of the service/product 	Satisfaction level
Creditors	- development of trustworthy and profitable relationships	<ul style="list-style-type: none"> - % capital obtained from credits; - loan rate 	Financial support	Loan rate
Government	- development of a positive organization lined up to the Government strategy	<ul style="list-style-type: none"> - no. of sanctions, no. of paid penalties - no. of projects possible due to budget financing 	<ul style="list-style-type: none"> - geographical stability - stability of the market, of the architecture - environment stability 	No. of unobserved laws, rules
Community	Development of a business community	<ul style="list-style-type: none"> - no. of community services offered; - no. of implications in community projects 	<ul style="list-style-type: none"> - involvement, collective interaction - community services 	Contribution brought to the community

Table 6. BSC from the perspective of e-business processes

BSC – the perspective of e-business processes	
Objectives	Metrics
1. Management of operations	
- permanent adaption of the infrastructure to the strategy requirements	% investment in TIC/total of investments
- lessening of the production costs	% of production cost lessening/exit unit
- continuous improvement	% of quality level increase
- efficiency increase	<ul style="list-style-type: none"> - % of exit units increase /time unit - % of exit units increase /entrance unit
- risk management (financial, operational, technological)	% of avoided risks
2. Management of stakeholders	
- selection, attraction and withholding of the main stakeholders	<ul style="list-style-type: none"> - % of attraction, withholding, loss of stakeholders - profitability rate of stakeholders
- creation of an integrated management system of the relationships with stakeholders	<ul style="list-style-type: none"> - profitability of partnerships - communication efficaciousness
- education of stakeholders	% of profitability increase
3. Innovation	
- opportunities increase	% of opportunities owed to the R&D processes
- value invention through activities of research/development	No. of models, values created as a consequence of the R&D act
- designing/development/products launching/new services	No. of products/new launched services

Table 7. BSC from the perspective of learning and increase based on knowledge

BSC – the perspective of learning and increase based on knowledge	
Objectives	Metrics
1. Creation of a global, ethical culture	<ul style="list-style-type: none"> - % of cultural conflicts - no ideas for improvement of the processes and on the quality available within organizational networks - no updates belonging to the organizational culture meant for continuous improvement and knowledge fractioning - % no suggestions adopted by the organization
2. Management of organizational knowledge	
- increase of knowledge diffusion	<ul style="list-style-type: none"> - % of e-learning environment acceptance - performance of knowledge communities
- increase of knowledge codification	- no. of learned lessons, codified successful stories from the respective domain
- increase of knowledge innovation	<ul style="list-style-type: none"> - the results from the innovation competition of the products; - updates percent from the field of market idea - no. of products/newly invented services
- real time updating of the knowledge storage	<ul style="list-style-type: none"> - time distance from the identification of some knowledge and up to the moment of storage updating - % of knowledge storing
3. Development of organizational intelligence	Training level of the jobs, system availability
- continuous learning	<ul style="list-style-type: none"> - no. of training hours per employee - % of trained employees in the field of quality management and process improvement - % no. of employees that have the necessary knowledge and training in management activities and constraints theory, in real time
- creation of business intelligence systems	<ul style="list-style-type: none"> - no. of existent strategic systems; - % no. of opportunities identified by systems and valued - % of increase of success decisions

The presented example contains a few minimum objectives that have to be taken into consideration when formulating an e-business strategy.

Conclusions

In the nowadays context of the economy, a main condition for having a successful business is to build an adequate system for the evaluation and permanent control of the business strategy during all its phases in order to assure the correction and permanent improvement of the business strategy. It is preferable that the evaluation and control system receive as entrance data, qualitative information obtained with the help of TIC.

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