DYNAMIC SCENARIOS IN FINANCE AND MANAGEMENT, LOOKING TO 2024

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Abstract

This research aims to study management skills in dynamic scenarios, taking as reference the theories: Dynamic – Systems (M. Vera, 2011), Fractal Catalysis (Davia, 2006) and Intelligence and Reason (X. Zubiri, 1983).The overall aim of this study is to identify the dynamic financial scenarios and management up to the year 2024 and to determine the profile of management skills suitable to these scenarios. The specific aims consist in: identifying the dynamic scenarios in finance and management with a projection to year 2024; identifying the main characteristics of the current financial-oriented management skills and management profiles; and determining a profile management with financial guidance skills and relevant management in dynamic scenarios. The methodology used applies an observational analytical design with a qualitative approach.

The results indicate that professional scenarios used in profiles of current management skills are static and not dynamic; therefore, we can conclude that from the perspective of the national and international financial scenarios and the scenarios of financial experts up to 2024 show significant changes with an overall positive trend in the area of finance and management; more dynamics; and the need of better and more competent professionals. They also indicate that professionals need to develop new and better skills, use new strategies and ways to learn, and have to face difficulties in the development of its work related to the dynamics of the financial and economic system. Its functions will be developed with various new forms of work, such as in an environment of greater complexity, control, and automation. Their work will be more demanding, interdisciplinary, and within complex environments; it will require international experience.

Keywords: Management skills, management skills profile, finance, tertiary specialization, dynamic scenarios

Introduction

This study aims to analize the professional settings and profiles of management skills in the area of Finance and Management from a dynamic perspective, under the grounds that both professional scenarios and profiles of management skills are known for exhibiting greater complexity in time and for generating sudden structural changes due to dynamical systems.

In relation to the demands of professional skills that future scenarios imposed on finance and management specialists considering the trends in financial markets, it is true that the financial crisis of 2008 and the 2009 recession and its lingering effects have deeply affected the financial system from the basics of its architecture, which has placed not only relevant questions about the future of the global economy, but also on the actions of the various actors, organizations, professionals and persons involved in the system. They have also shown the weaknesses in the financial system and economic interdependences, governance gaps and intrinsic systemic risks inherent in the dynamics of globalization (World Trade Forum, 2010). This forces us not only to rethink the purpose and business models of the financial institutions but also to rethink all of those institutions operating in the dynamics of the neoliberal economic system, such as reconsidering the role of financial innovation as well as the governance and control of the global financial system. In this manner, there have been attempts in redesigning the worldwide financial system. In relation to the demands of professional skills that future scenarios worldwide financial system.

It is noted that national legislation, institutions, supervisory authorities, international organizations and other institutions, supervisory authorities, international organizations and other institutional bodies are changing institutions, policies and regulations in order to reduce the gaps in governance and maintain control of the financial system, and at the same time, prevent systemic failures in the financial systems of various types and scales of existing organizations, as well as looking for ways to restore growth.

General aim

This study will identify the dynamic scenarios in finance and management with a projection to year 2024 and will determine a profile management with financial guidance skills and relevant management in dynamic scenarios.

Specific aims

- Identify and describe the dynamic scenarios in 1) finance and
- Identify the desense the dynamic scenarios in Finance and management with a projection to year 2024 Identify the main characteristics of the current financial-oriented management skills and management profiles. 2)

Determine a profile management with financial guidance skills and relevant management in dynamic scenarios. 3)

Research justification

Research justification From a scientific and technical standpoint, this research comes from the need to construct profiles of financial-oriented management skills in dynamic scenarios which requires a careful reflection upon its facts and circumstances. It involves exploring dimensions that come from perspectives that have been adopted for its study (eg, linear or dynamic), for instance, the complexity of the profiles of management skills in dynamic scenarios. The methodological structure enables a full observation of future scenarios of the economic and financial system, such as a profile analysis of management skills to then determine through a prospective study of the dynamic scenarios a profile of these skills.

a profile of these skills. From an economic and social perspective, the profiling of relevant management skills, i.e., coherent, adaptable, flexible in time and date, has an effect on the quality of the professional performance of the specialist. It consequently contributes to the generation of responsible actions in the economic financial sector by specialists in the area of finance and management, as well as to contribute to the national development through a responsible and relevant professional expertise and performance.

Limitations of research

This research is limited to financial management scenarios studies with a projection to year 2024 and to national programs of tertiary specialization in the area of Finance and Management undertaken in 2011 that included finance subjects in their curricula.

Research context

This study analyzes specialized expertise in finance and management in dynamic scenarios looking to 2024, especially Finance and Management Specialists (FMS) and overall professionals in Economic Scenarios (ES) in order to establish new scenarios for professional performance within the economic and financial system. This sets the context for future professional development of the specialists.

This study also analyzes the described profiles of management skills that are currently in the specialization programs in tertiary education. This sets the context of current training of such specialists. It is contextualized in two levels, the first refers to the current reality of management skills and the second to the projection of professional scenarios of the specialists by 2024.

Methodological approach of the research Approach

This is a qualitative study that is part of the interpretive or naturalistic paradigm, as an observational analytic study, considering as a global unit of analysis the professional scenarios and profiles of financial-oriented management skills.

Study design

This study has an analytical, observational design and attempts to explain the "why" and the "how" of the reality under study. This design focuses on cause-and-effect relationships between variables where researchers try to analyze the situation and make a critical evaluation of it, and the results they obtain allow a more sophisticated analysis than descriptive studies do.

The observational characteristic refers to the impossibility that researchers have to manipulate independent variable (s), which distinguishes them from experimental studies, and by definition, they should enable researchers to verify their working hypotheses (Rada, 2007). It is also a non-experimental study since it does not manipulate variables, dependent or independent; this is a transactional study as it takes data from reality into a single point in time.

Stages of the research

The design includes the following stages: 1st Research design that will be formalized in the research project. 2nd Theoretical Framework: it will develop the literature review and search the state of the subject in the research. 3rd Methodological Framework: it will define the research methodology. 4th Field Study: the data will be collected from respective sources to fulfill

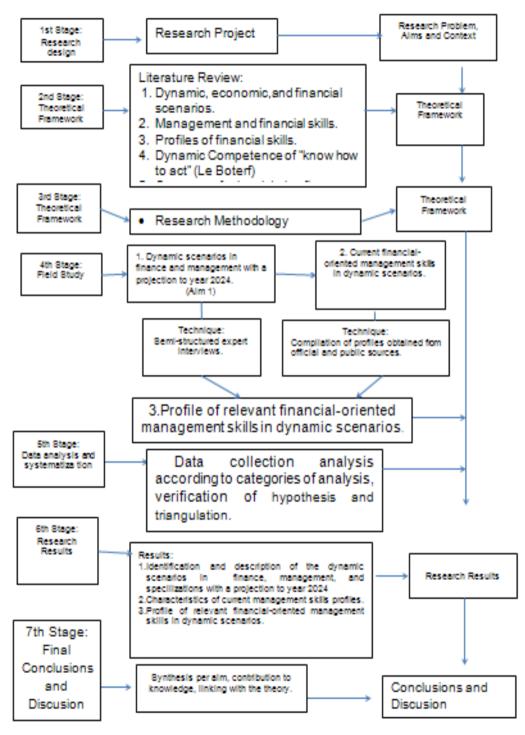
the aims.

 5^{th} Analysis and systematization of data: a process that enables us to organize the collected data according to the categories of analysis. Hypothesis testing and triangulation of data for validation and consistency will be performed. 6^{th} Research results: it will establish the research findings according to the

aims.

7th Discussion and final conclusions: they will include a synthesis per aim, contribute to knowledge, discuss and link it with the theory.

Research Design Outline



Methodology Design Outline of the Research (own elaboration)

Variables

1. "Dynamic Scenarios" Variable The dynamic scenarios of finance and management could be defined as: DS = f(ES, FS)

- "Dynamic Scenarios" (DS)
 "Economic Scenarios of overall professionals" (ES)
 "Financial Scenarios of finance and management specialists" (FS) Conceptual Definition:
 - Conceptual Definition:
 1) "Dynamic Scenarios" are the economic scenarios of the overall professionals and the financial scenarios of finance and management specialists. Their main characteristic is their increasing or dynamic complexity and their ability to develop sudden, adaptive and evolutionary structural changes called dissipative structures.
 2) "Economic Scenarios of overall professionals" are the dynamic economic scenarios common to all professionals.
 3) "Financial Scenarios of finance and management specialists" (FS) are the dynamic financial scenarios of finance and management specialists

 - specialists.

Operational Definition:

- Operational Definition:
 1) "Dynamic Scenarios" are the dependent variable expressed in the performance environment that includes and integrates economic and financial scenarios of prospect professionals and specialists to 2024.
 2) "Economic Scenarios of overall professionals" are the dependent variable expressed in the macro and micro environment of overall professionals performance projected to 2024.
 3) "Financial Scenarios of finance and management specialists" are dependent variables expressed in the national and international financial environment performance of finance and management specialists projected to 2024.
 2. "Profile of Management Skills" Variable
 "Profile of Management Skills" (PMS)

- "Profile of Management Skills" (PMS) 1)
- 2) Structure (St)
- 3) Skills (S)
- 4) Time Pertinence (T)5) Dynamics (D)

Conceptual Definition:

"Profile of Management Skills" is the profile statement, whether it is from an undergraduate program or from tertiary specialization programs provided by the training institution.

- 2) Structure consists of the statement components of the professional and / or undergraduate programs profiles of national specialization programs under study.
- 3) Skills are the competence of "know how to act" (Le Boterf, 1994)
 4) Time Pertinence is the permanent coherence in the professional environment over time.
- 5) Dynamics are the function, activity, information, intelligence, consciousness and structure integrated flux (Ulloa, 2007) **Operational Definition:**
- "Profile of Management Skills" are the dependent variable expressed as statement specialization programs under study.
 Structure is the independent variable expressed in the statement profiles such as the occupational skills and fields or areas of development.
- 3) Skills are the independent variable expressed in the statement profile and skills of "knowing how to act."
 4) Time Pertinence is the independent variable expressed in the profile statement of the projection of the profile.
 5) Dynamics are the independent variable expressed in the dynamic characteristics of the academic program of the profile.

Hypothesis

The hypothesis of this study proposes that the professional scenarios are static and not dynamic where current profiles of management skills are embedded in..

There have been many hypotheses put forth to develop a qualitative analytical study of this matter. We would like to add a phase to this type of study where propositions or conjectures are stated in the form of research hypotheses. They are statements that consider the identified problem from the theoretical basis of the research, whose role is to lead the investigation in the right direction showing what evidence you need to look for in order to not collect all the data (Yin, 1994).

Results and conclusion

After consulting the experts (managers, analysts, academic directors of public and private sectors), the conclusions with respect to the profiles of financial-oriented management skills within 10 years are the following:

1st International and global financial scenarios:			
Event	Trend	Scenario to 2024	
1. Return of the global economic growth, trade and the confidence of investors and consumers increase.	Economic: Positive Environment: Negative	There will be growth, and trade, investor and consumer confidence will increase but it will be unstable and cyclical. Expansion in emerging countries. Post 2012: Exhaustion of the economic model.	
2. Strengthening the international financial markets by 2024.	Economic and Financial: Positive	Regulation of banking and financial institutions as a structural key to the stability of the financial system. An evolutionary pattern for the financial sector where self-regulation and control mechanisms are expected.	
3. District stability and long-term district plans overall possible in countries worldwide.	Economic and Financial: Positive Politics: Negative in medium-term (2024) and positive in long- term	District stability will be effective in long-term period. Change in awareness of political actors and trend regardless of the political class in long-term period.	
4. Changing the dynamics of employment by reducing the overall unemployment.	Employment: Positive Economy: Positive	The dynamics of employment will change, the global unemployment tends to decrease due to the growth of emerging economies. Downward adjustment in the medium-term period. Go from the new economic model to one centered on the person and the environment. Jobs tend to concentrate in productive areas or better economic conditions.	
5. Detailed and feasible consolidation tax programs and structural changes to reduce debts in countries with high tax debt.	Economy: Positive	Countries will make structural changes to reduce their debts, driven by the competitive strength of the global market. These countries impose long-term tax discipline themselves, diverging from short-term pressures from the capitalist model. These countries go through a difficult process of tax consolidation with an impact on citizens. Irresponsibility and the possibility of bankruptcy of countries - a way of assessing responsibility is necessary. They improve their debt situation by raising taxes or cutting expenses, <u>but their tax mess still prevails.</u>	
6. Behavior of economic growth in emerging economies and at a global level.	Economy: Positive in long-term period, slow dynamics in short-term period and cyclical in short and medium term period.	Scenarios of high level growth of emerging economies. Scenarios under slow growth dynamics Cyclical growth scenarios 4-5 years Beginning of the end of the capitalist model before 5 decades, without previous ideologies will change the model.	
7. Results of bailouts of countries, international banks and corporations from a social perspective.	Social: Negative by 2024	Greater inequality, more injustice, more poverty, less retirements, greater distrust of people in the financial and political systems. Awareness awakens of the dynamics of the bailouts in relation to the actual impact on people and society.	
8. Perceived legitimacy of capitalism and the	People and Economy:	This perception is changing, but not before 2020. After 2020, the perception will change completely.	

1st International and global financial scenarios:

attitude of people towards the free market economy.	Negative in long- term period.	More pragmatic and more aware that a person cannot consume more than what one is capable of producing and / or creating.
9. Global Financial Regulations by 2024.	Finance: Positive	Better financial regulations by 2024 at a global level, but not at a micro level. The improvements will not be sufficient to ensure transparency in financial transactions. The change goes further and deeper than a simple improvement accommodated to the needs of corporations controlling the global economic system. New instrument regulations are generated.
10. Pro-market , pro- business, and pro-social development: global political approach by 2024.	Pro-business: Positive Pro Market: Positive Pro Social: Negative	Emphasis on pro-business and pro-market approach, aimed at pro-social development. Approach is mainly a political speech rather than from reality, because reality reveals how politically social needs are not adequately met. By 2024, other countries that will enhance social development will be added. The pro-business approach will be as China does it, based on research and development and entrepreneurship.
Chance of a global financial meltdown and collapse of world economies by 2024.	Economy: Positive	There will be no collapse in world economies by 2024. There will be frequent crises and disasters to a lesser extent, and fictitious crisis.

2nd Scenarios of the national financial system by 2024:

Event	Trend	Scenario by 2024
1. Offer of financial services and expertise of national agents.	Finance: Positive	More effective offer of financial services Greater interdisciplinarity Greater adaptability of agents Greater specialization without being more specialized by market maturity.
2. Self-regulation of the institutions and agents of the financial system and their risk management	Finance: Positive but not optimal (regulation but no self- regulation)	There will be no self-regulation but improved risk management following global trends and greater empowerment of people within 8-12 years. Corporate governance. Planning and risk-based control.
3. Declassification and increased disclosure of banks.	Finance: Positive	There will be no greater declassification of information, there will be more information. Distrust of the information provided by the financial system, long-term recovery. People connected to trasparent information of the entire economic system will demand justice,fairness. Ordinary people will learn to read financial information. The volume of the small print on credit agreements or other contracts will be reduced.

		Information returns for each of them will be transparent. Progress in transparency with respect to the IFRS. Internal information will not be transparent, except for products and charges.
4. Chilean financial system will be people oriented by 2024	Social: Negative	Orientation will not be directly towards people by 2024, possibly after 2028. Change in orientation conditioned to entrepreneurship and education as national vision. And subject to the policy in protecting the interests of the people rather than economic interests.
5. Coverage and accessibility for people to benefit from capital market.	Finance: Positive	Coverage and accessibility will be driven by international and global trends. The actual development of the country will go through greater coverage and accessibility of people to the capital market, especially with respect to the creation and healthy development of SMEs. Markets are integrating the system and investment opportunities are growing. People enjoy the benefits of the capital market since the market will be more mature.
Stability and reliability on the Chilean financial system by 2024	Finance: Positive Political System: Positive in long- term period	Continuity in its development and growth is expected.

3rd Scenarios of the specialists in finance and management by 2024

Event	Trend	Scenario by 2024
		Ultra changing environment.
		They will change their roles and functions
		They will Increase their levels of responsibilities
		and demands on accountability.
		Loss of prestige in finance and professionals.
		Professionals equipped with cutting edge
		technology.
1. Specialist in finance	Finance: Positive	Professional ethics applied in financial and banking
and management by	Greater dynamics	institutions through permanent and mandatory
2024, professional role,	and changes, better	training required by Chilean Financial Institutions.
functions and	and more competent	Financial Institutions will be strengthened.
responsibilities.	professionals.	This type of professional will remain a cornerstone
		in every organization.
		Professional responsibility in relation to the
		management level they have.
		Interdisciplinary professionals; they should master
		finance.
		Professionals will be better than today: more
		professional and more technical.

		Ethics, awareness, projection of their professions
2. Competencias fundamentales debería poseer este especialista para responder a la dinámica de la actividad y saber actuar profesionalmente Significant competence the specialist should have in order to respond to the dynamics of the activity and know how to act professionally	Bigger, better and new skills	and changes in the financial, economic, social and political environment; responsibility; less greed and more foresight, knows how to operate in changing financial means; mettle, long-term perspective; global domain of the profession; multiculturalism; communication skills and web interaction in other languages; resilience; know how and know how to learn; know what and whom to trust; less technical expertise and more transverse ethical skills; technological meta-skills in using new software within the field; learn to listen; learn to change direction; know how to self-organize and reinvent themselves quickly; know how to operate in macro and micro international networks; know how to teach. Learns more about the different products offered in the financial system to provide comprehensive customer service. Empathy from the specialist to the customer beyond technical skills. Technical skills, high ability to adapt and manage in an environment of constant change, resilient and vision to anticipate future scenarios. Is aware of new financial and investment instruments, knowing its dynamic and access. Global approach and international finance. Technical expertise and professionalism.
4. Ways to learn from specialists in finance and management in 2024; skills, resources and strategies to be used.	New ways of learning and new strategies	Specialization in handling human relations. They will learn by conventional methods and they will learn new methods by technological means. Learning mainly through informal systems and lifelong learning systems. Innate and learned skills are laid out. They will develop interdisciplinary and metacognitive strategies for team decisions. They will know several disciplinary fields. They support their practices from diverse professional and personal interests. Increasingly dynamic and creative development of skills to perform the work and communications related to them. They will learn by getting involved directly into financial management. They will have ongoing training with IT support to be updated. They will learn with less theory and be closer to implementation aspects They will learn in business schools and in postgraduate specialization programs.

4. The most relevant difficulties these specialists will face in their jobs.	Difficulties associated with the dynamics of the financial and economic system	High competition between professionals. The work dynamics will test their ability to operate quickly without error and adaptability. Sudden and systematic change of knowledge and of regulations and technologies, Widespread lack of confidence from the investors and people in the financial system. General lack of confidence in the professional abilities of the specialist. Dealing with uncertainty, professional errors and handling dynamic, competitive and possibly hostile environments. They must adapt quickly to new technologies. The quality of communications. Have low competence in communications, as a problem of training, the warmth of human relations goes against the speed of business to meet sales goals and profitability. Technological advancement. Teamwork, leadership, language, negotiation, oral and written ability. Competition and market dynamism.
5. Within the complexity of the future, new ways in which its functions will be developed	Variety of new ways of working	Cellular technology, remote working, diffuse work without necessarily belonging to an institution or organization. Working in multicultural teams. Extra speed technologies. In financial markets highly unstable. Simultaneous work for multiple interests. Dynamic ways of work. Working with information and data security. Highly complex system, much risk will be transferred to prices, ie rates, and specialists will not be free of these risks, double the efforts on controlling them according to the systemic procedures of the banking institutions. In virtual environments, interconnected with coincident indicators of the proper conduct of the organization. They will be developed at a global level, they must

		know political aspects and global trends.
		Fully interdisciplinary equipment
6. Working environment of the finance and management specialist		Physical rather than virtual spaces
		Work from anywhere
		Time dedication bounded
		Cutting edge material and computer resources and
		which are not always available.
in 10 years in terms of	Creater complexity	Within 10 years there will be a radical restructuring
interdisciplinary	Greater complexity, greater control,	of the systems, strategies for using information
equipment, physical	automation.	technology as an essential basis to compete and
spaces, use of time and		differentiate itself within the banking industry, work
material resources,		environment consistent with these strategies.
computer and technical		Performance on complex and connected
resources.		technological parameters.
resources.		Interconnected work, more automated workflow,
		control oriented processes.
		Cellular technology.
		Increased accountability through technology
		systems,
		Less working hours but more intense
		ongoing training in situ.
	More demanding	Greater professional competition due to integration
7. Work innovations of	work,	of interdisciplinary equipment and expert agents
the specialist in finance	interdisciplinary,	from other areas of knowledge.
and management by	more complex	Innovation in the quality of customer relationships
2024	environments,	with available technologies.
2024	international	The human side of financial institutions.
	experience.	More sophisticated software for financial
		information management.
		International internships in developing countries.
		Greater flexibility in decision-making and different
		organizational structures and types of businesses.
		Changes in training programs to develop skills and
		meta-skills.
		Changes in the assessment of learning.
		Actual field work.
		Intensive use of updated technological tools.
		Centered learning environments in the area of
		finance and management.
		Shorter undergraduate and specialization programs.
		Teachers with greater academic capacities.
8. Big changes needed		Incorporation of research and action research in the
in specialist training in	Profound changes in	curriculum.
finance and	the initial training.	More consistent with the value-based approach than
management to respond to the scenarios of 2024	ule mittai training.	banking for a coherent development of the country.
		Better handling of software related to the financial
		sector.
		Development of management skills and adaptability
		to change.
		Greater interaction with companies for learning by
		doing.
		Languages required.
		Constantly updating, renewable certification.
		Postgraduate specialization rather than research,
		hard theoretical and technical training.

References:

Almonte L. y Morales M. (2011). El entorno económico mundial y el escenario de la economía mexicana para 2012. En Revista trimestral de análisis de coyuntura económica. Vol. IV Núm. 3 julio-septiembre 2011. (http://www.uaemex.mx/feconomia/Publicaciones/Economia%20actual/EA_ 43/EA-14-3-LeoyEsther.pdf)

Antonioli D., Manzalini R., Pini P. (2011). Innovation, workers skills and industrial relations: Empirical evidence from firm-level Italian data. Volume May 2011, Pages 40. Issue 3. 312-326. (http://out.economia.unife.it/uploads/dip_deit/quaderni/201106.pdf)

Arsham H. (s/f). *Razonamiento Estadístico para Decisiones Gerenciales*. Sitio Web (http://home.ubalt.edu/ntsbarsh/Business-stat/opre504S.htm) Arts J., Gijselaers E, Boshuizen H. (2006). *Understanding managerial*

problem-solving, knowledge use and information processing: Investigating stages from school to the workplace, Contemporary Educational Psychology, Pages Volume Issue 4. October 2006. 387-410 31. (http://www.sciencedirect.com/science/article/pii/S0361476X06000270)

Avramov D., Kosowski R., Naik N., Teo M. (2011). Hedge funds, managerial skill, and macroeconomic variables. Journal of Financial Economics, Volume 99, Issue 3, March 2011, Pages 672-692, (http://www.sciencedirect.com/science/article/pii/S0304405X10002394)

Davia, Christopher. J. (2006). *Chapter Life, Catalysis and Excitable Media,* in The Emerging Physics of Consciousness, Jack A. Tuszynski (Ed). Springer Verlag, Germany.

Durham University (s/f). Programa de Maestría en Finanzas. U.K. (http://www.dur.ac.uk/dbs/degrees/msc_programmes/) E.W.T. Ngai, Yong Hu, Y.H. Wong, Yijun Chen, Xin Sun (2011). The application of data mining techniques in financial fraud detection: A classification framework and an academic review of literature. Decision

Support Systems, Volume 50, Issue 3, February 2011, Pages 559-569. (http://www.sciencedirect.com/science/article/pii/S0167923610001302) Jones Ch., Rishma V., and Wook Yoon (2009). *Employer Expectations Of Accounting Undergraduates' Entry-Level Knowledge And Skills In Global Financial Reporting*. American Journal of Business Education. 2.8 (2009):

85-101.(http://journals.cluteonline.com/index.php/AJBE/article/view/4602) Kaul I and Conceição P. (2006). The New Public Finance; Responding to Global Challenges (co-edited with Pedro Conceição). New York, Oxford University Press, 2006.

Kleijnen M., Ruyter K., Wetzels M. (2007). An assessment of value creation in mobile service delivery and the moderating role of time consciousness, Journal of Retailing, Volume 83, Issue 1, 2007, Pages 33-46. (http://www.sciencedirect.com/science/article/pii/S0022435906000662)

Kochan, T., McKersie, R., Cappelli, P. (1984). Strategic Choice and Industrial Relations Theory. Industrial Relations: A Journal of Economy and Society. Vol. 23. Blackwell Publishing Ltd.

Krugman P. (2011). Meanwhile, in Europe. The New York Times. Publicado el 2 de Septiembre de 20100. Citado por Almonte Op. Cit. (http://krugman.blogs.nytimes.com/2011/09/02/meanwhile-in-europe/)

Nieschwietz R, Schultz J, Zimbelman M. (2000). Empirical research on external auditors detection of financial statement fraud. Journal of Accounting Literature (2000). Volume: 19, Pages: 190-246

O'Ryan, Pereira y De Miguel (s/f). La crisis financiera y sus efectos sobre el cumplimiento de los ODM: El caso de Chile. CEPAL. (http://www.cepal.org/comercio/pdfs/Crisis_financiera_efectos_ODM_Chile_RORYAN.pdf)

Okazaki S. (2005). New Perspectives on M-Commerce Research. Journal of Electronic Commerce Research, Vol. 6, N°.3, 2005.

ONU (2012). Situación y Perspectivas de la Economía Mundial, Sumario Ejecutivo 2012. (http://www.un.org/en/development/desa/policy/wesp/wesp_current/2012wesp_es_sp.pdf)

Seely Brown J. (1999). Sustaining the Ecology of Knowledge, *Leader to Leader*. Spring 1999, Number 12; pp. 31-36.

Seely Brown J. (2000). Growing up Digital: The Web and a New Learning Ecology, Change, March/April 2000, pp 10-20.

Siemens G. (2003). Learning Ecology, Communities, and Networks: Extending the Classroom.

(http://www.elearnspace.org/Articles/learning_communities.htm)

Stubbart, Ch. (2007). Managerial cognition: a missing link in strategic management research. Journal of Management Studies. Vol 26, Blackwell Publishing Ltd. (http://dx.doi.org/10.1111/j.1467-6486.1989.tb00732.x)