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***Extracting Value from Big Data: An Integrative
Analysis of Technology and Organisational Factors***

SINTESI

RELATORI

Prof. Antonella Martini
*Dip. di Ingegneria dell'Energia, dei
Sistemi, del Territorio e delle Costruzioni*

Prof. Luigi De Luca
Cardiff Business School

CANDIDATO

Andrea Rossi
a.rossi1992@gmail.com

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Extracting Value from Big Data: An Integrative Analysis of Technology and Organisational Factors

Andrea Rossi

Abstract

This thesis is the result of a research project carried out from September 2016 to March 2017 at Cardiff Business School, UK. The developed research mainly focused on investigating the relationships between data-rich environments and firm's innovation and performance. Indeed, Big Data are a potentially enormous source of value for the firms. However, the process that starting from Data leads to innovation and performance has not been systematically studied in the literature yet. I developed a conceptual model and collected 122 questionnaires from 94 Italian firms, which were used to validate it. I studied the relationships between three V's, Big Data Investments, Data Management and Analytics and Data Density Processes (Technology Factors), Marketing-IT Collaboration, Customer Centricity and Data Oriented Culture (Organisational and Cultural Factors) and how they should interact to create innovation and, consequently, performance, for firms that work in a data-rich environment. The results validated the conceptual model, confirming the need for a systematic approach, both from a technological and cultural point of view, to deal better with Big Data, consequently opening interesting avenues for future research.

Sommario

Questo lavoro di tesi è il risultato di un progetto di ricerca svoltosi da Settembre 2016 a Marzo 2017 presso la Cardiff Business School, nel Regno Unito. Il progetto ha riguardato lo studio delle relazioni tra *data-rich environment*, innovazione e performance aziendali. I Big Data costituiscono, infatti, una fonte di valore potenziale per le imprese che li utilizzano; tuttavia, il processo che partendo dai Big Data porta a innovazione e performance non è ancora stato studiato approfonditamente in letteratura. La ricerca si è sviluppata tramite lo sviluppo di un modello concettuale, seguito dalla raccolta di 122 questionari. Specificatamente, lo studio ha riguardato le relazioni che intercorrono tra le Tre V, gli Investimenti relativi ai Big Data, gli strumenti di Data Management e Analytics e i *Data Density Processes* (Fattori Tecnologici), la collaborazione tra le funzioni Marketing e IT, la *Customer Centricity* e la *Data Oriented Culture* (Fattori Organizzativo-Culturali). L'interazione tra queste variabili è stata studiata in relazione al loro impatto su capacità innovative e performance delle aziende operanti in *data-rich environments*. I risultati dei questionari hanno validato il modello concettuale sviluppato nella prima fase, confermando il bisogno di un approccio sistematico, sia da un punto di vista tecnologico che culturale, per estrarre valore dai Big Data, aprendo strade interessanti per la ricerca futura.

1. SCOPE OF THE WORK AND OBJECTIVE

The challenges posed by Big Data are affecting every organisation that wants to maintain and improve its sustainable competitive positioning. How firms can create value from a data-rich environment is a question deeply posed in the literature. Even if a lot of theoretical papers (see paragraph 2) are present in the literature, very few of them try to construct systematic frameworks that could explain how to extract value from Big Data.

This research aims to give an unambiguous definition of value (characterised by firms' Innovation and Performances) and to develop a specific conceptual framework to understand the processes that, starting from data-rich environments, leads to Innovation and Performances. After the conceptual model development, a survey has been set up to test the model. The survey has been carried out among Italian firms currently working on Big Data Projects.

2. METHODOLOGY

The work is organised in 4 phases, described in Table 1

Phase	Objective	Methodological steps	Thesis Chapter
Literature Review	Study of literature to understand state-of-the-art knowledge on Big Data and define the main challenges posed by them	-Keyword search in specialized database	2
		-Abstracts' analysis and selection of papers -Deep Analysis of paper	3
Conceptual Framework and hypothesis	Define conceptual model to test	-Conceptual framework development -Hypothesis formulation	4
Survey development and data collection	Definition of variables measurement, database development to test theoretical model	-Definition of variables' measurement -Data collection	5
Data analysis and discussion	Critical analysis of findings' meaning	-Data analysis (SPSS)	6
		-Critical data analysis -Discussion and validation of the conceptual model	7

Table 1 - Phases of the work

3. LITERATURE REVIEW

Two main challenges emerged from the literature. The first is a technological one, characterised by Investments in Data Management Technologies and Analytics Techniques and Data Density Processes (Troilo, De Luca and Guenzi, 2016). Data Management (Gandomi and Haider, 2014; Yakoob et al., 2016) and Analytics (Gandomi and Haider, 2014; Chen, 2012) have been studied and categorized, to have a better overview of the technological side of Big Data. Data Density Process are constituted by new capabilities, enabled by advanced data management technologies and analytics techniques, that allows to make sense of data in three different ways: finding useful patterns (pattern spotting), responding in real-time to customers' needs (real-time decisioning) and defining strategic paths (synergistic exploration). For a better overview of Data Density Processes, see Table 2.

The second challenge that emerged from regards a cultural and organisational aspect, that allow Big Data to be transformed into value: the main factors can be recognized in Marketing-IT collaboration (Ariker et al., 2014; Baird and Ban, 2012; Dupre, 2013), Customer Centricity (Leo et al. 2005), and Data Oriented Culture (Davenport et al., 2012; Mayhew et al.,2016).

Relying on the literature (Barret et al., 2015; Den Hertog, 2000; Miles, 2008; Wooder and Baker 2012), three different types of Innovation have been identified: Concept Innovation, Process Innovation, Customer Experience Innovation. Concept Innovation refers to the new elements of tangible product offering presented to the customer. Process Innovation refers to the new or enhanced internal systems that allow firms and their workers to deliver products and services to customers more efficiently and effectively. Customer Experience Innovation refers to an improved customization, interactivity and usability of products, thanks to new combinations of digital and physical touch-points with the customer.

The main steps followed for the literature review are described in Table 2.

Phase	Details												
Framing of the topic	An initial list of keywords, discussed with my tutors, has been developed. This discussion yielded 13 keywords: Data Management Technologies, Analytics Techniques, Information Systems Research, Customer Centricity, Data Oriented Culture, Absorptive Capacity, Innovation, Organization Design, Big Data, C-suite, Data-rich environment, Service Innovation, Organizational Change												
Search	<p>Search of relevant articles was performed on SCOPUS using the following criteria</p> <table border="1"> <tr> <td>Search Terms</td> <td>['Big Data' and 'Data Management Technologies'], ['Big Data' and 'Analytics Techniques'], ['Big Data' and 'Information Systems Research'], ['Big Data' and 'Organization Design'], ['Big Data' and 'Data Oriented Culture'], ['Big Data' and 'Customer Centricity'], ['Big Data' and 'Organization Design'], ['Absorptive Capacity'], ['Big Data' and 'Innovation'].</td> </tr> <tr> <td>Search Mode</td> <td>Boolean/Phrase</td> </tr> <tr> <td>Published Date</td> <td>From 01/1999 to 10/2016</td> </tr> <tr> <td>Publication Type</td> <td>Academic Journal</td> </tr> <tr> <td>Document Type</td> <td>Article</td> </tr> <tr> <td>Language</td> <td>English</td> </tr> </table> <p>Total research provided 2523 articles</p>	Search Terms	['Big Data' and 'Data Management Technologies'], ['Big Data' and 'Analytics Techniques'], ['Big Data' and 'Information Systems Research'], ['Big Data' and 'Organization Design'], ['Big Data' and 'Data Oriented Culture'], ['Big Data' and 'Customer Centricity'], ['Big Data' and 'Organization Design'], ['Absorptive Capacity'], ['Big Data' and 'Innovation'].	Search Mode	Boolean/Phrase	Published Date	From 01/1999 to 10/2016	Publication Type	Academic Journal	Document Type	Article	Language	English
Search Terms	['Big Data' and 'Data Management Technologies'], ['Big Data' and 'Analytics Techniques'], ['Big Data' and 'Information Systems Research'], ['Big Data' and 'Organization Design'], ['Big Data' and 'Data Oriented Culture'], ['Big Data' and 'Customer Centricity'], ['Big Data' and 'Organization Design'], ['Absorptive Capacity'], ['Big Data' and 'Innovation'].												
Search Mode	Boolean/Phrase												
Published Date	From 01/1999 to 10/2016												
Publication Type	Academic Journal												
Document Type	Article												
Language	English												
Selection and classification	The title and the abstract of all articles obtained were read and an article was selected if its abstract was related to the topic. This carried out 200 articles, which were further examined reading again abstract and conclusions. If an article was not related to the topic or if it not debated an interesting argument, it was deleted. The selection operations ended with 77 articles												
Database construction and analysis	<p>A database was built with a Microsoft Excel sheet, composed by these fields: Number of the article (#) – Title – Authors – Year – Journal – Methodology – Source – Note – Complete Reference – Link to Summary Document</p> <p>A Summary Document for every article was realised with Microsoft Word. This document begins with a header containing the number and the title of the article and includes the following field:</p> <ol style="list-style-type: none"> 1. Subject, in which the principal argument debated in the article is described; 2. Construction definition, it indicates the variable analysed, its definition and the way used to measure it; 3. Methodological aspects, which contains information about the methodology used (qualitative or quantitative), premises for the analysis' reference period etc. 4. Results, namely the outcome of the article 5. Comments, namely indications about how much article is relevant to the topic, if it is related to other articles, if it debates emerging issues, if it is the only one asserting anything etc. 												
Conceptual framework development	A conceptual model was developed from the insights given by the literature review, to capture ideas and information, organise them in ordinate way and identify principal links between various argument analysed in literature.												

Table 2 - Main steps of literature systematisation

4. CONCEPTUAL FRAMEWORK

The aim of the conceptual framework (Fig. 1) I developed is to understand how the factors identified from the literature review interact, to enable firms to create innovation and improve their performance. The conceptual model development has been organised on three steps:

1. Study of relationship between Technology Factors and their impact on Innovation and Performance
2. Study of the relationship among Technology Factors and Cultural-Organisational Factors and of the impact of Cultural-Organisational Factors on Innovation and Performance
3. Study of the relationship among Innovation and Performance



Figure 1 - Conceptual Model and Hypotheses

4.1 Relationship between Technology Factors

With Technology Factors I mean Three V's, Big Data Investments, Data Management and Analytics and Data Density Processes. Three V's are recognised to be the main characteristics of Big Data: velocity, variety and volume. These characteristics pose an enormous challenge for firms that work in data-rich environments. They need to adapt their infrastructure to capture the enormous volume of data coming from different sources in very little periods. It is from this consideration that I state that:

H1: Three V's encourage firms to invest in Advanced Data Management Technologies and Analytics Techniques (Big Data Investments)

These investments in Big Data Technologies and Techniques are oriented to an improvement of Data Management and Analytics competences at all firm's level. Consequently, I state that:

H2: Big Data Investments positively affect Data Management and Analytics competences

Once gained, or improved, these competences, a sense-making process is necessary in order to extract insights from Big Data. This sense-making process can be of three different types, Data Density Processes (Troilo, De Luca and Guenzi, 2016), summarized in Table 3

Data Density Processes			
	Pattern Spotting	Real-time decisioning	Synergistic Exploration
Actor (Who does what)	Employees optimize service delivery processes	Users receive and respond to real-time offerings and communications from the firm	Managers identify Strategic innovation directions for the firm
Time (When things are done)	Medium – term future	Real-time	Long – term future
Place (Where things are done)	Inside organisational processes and structures	At the customer location	In a new market (by segment, product, geography, benefit)
Dominant V	Volume	Velocity	Variety
Temporal source of Data	Mainly past	Mainly present	Both past and present
Main objectives	Explain, optimize	Predict, Respond	Explore, Diversify

Table 3 - Overview of Data Density Processes

These processes cannot be activated without high competences regarding Data Management and Analytics. The last interaction between Technology Factors state as follow:

H3: Data Management and Analytics competences enable the firms to activate Data Density Processes

Once the sense-making process is completed, insights extracted from it can be used to create Innovation in Product (Concept Innovation), Processes (Process Innovation) or in the customer experience (Customer Experience Innovation). It is in that way that I state that:

H4: Data Density Processes enable the firms to generate Innovation from Big Data

4.2 Relationship among Technology and Organisational Factors and among Organisational Factors, Innovation and Performance

Technology Factors are not the unique source of value creation from a data-rich environment. In fact, they need to be supported by Cultural-Organisational Factors, such as Marketing and IT functions collaboration, Customer Centricity and Data Oriented Culture. The importance of these factors seems to start at the time that sense-making processes are activated. Specifically, Marketing and IT collaboration is an Organisational Factors that could allow firms to enhance the effectiveness of the sense making process.

H5: Marketing and IT Collaboration positively affect the firm's capabilities to activate Data Density Processes, increasing their effectiveness on Innovation

Indeed, Customer Centricity and Data Oriented Culture, are considered to positively affect Innovation and Performance, given that posing the customer at the centre of any firm's strategy and relying on data are drivers universally recognized in the literature as creators of value. To sum up, the hypothesis regarding the relationships among Organisational Factors, Innovation and Performances are the following:

H6: Customer Centricity has a positive impact on Innovation

H7: Customer Centricity has a positive impact on Performance

H8: Data Oriented Culture has a positive impact on Innovation

H9: Data Oriented Culture has a positive impact on Performance

4.3 Relationship between Innovation and Performance

Even if in the literature, it is not recognized that firm's performances need to derive from Innovation, in a data-rich environment the classic driver of Innovation could be important to increase firms' performance. This directly derive from the innovativeness of all the processes, technologies and techniques used to deal with Big Data. To exploit their full potential, insights extracted from Big Data need to be transformed in Innovation, to create value.

Then, the last hypothesis of the model is that:

H10: Innovation mediate the effect of Data Density Processes on Performance

The model, as it has been described, with its relative hypothesis, is shown in

4.4 Variable Measurement

Type	Name of variable	Sub-Factors***	References
Technology Factors	Three Vs	Volume	- Chen et al. (2012)
		Velocity	- Loney (2001)
		Variety	- Kwon, Lee and Shin (2014)
	Big Data Investments	Budgeting	
		Resource allocation	
		People Hired	
	Data Management Competences	Traditional Data Management	-Gandomi and Haider (2014)
		Advanced Data Management	-Yakoob et al (2016)
	Analytics Competences	Basic Analytics	-Chen (2012)
		Operational Analytics	-Gandomi and Haider (2014)
Predictive Analytics			
Data Density Processes	Pattern Spotting		
	Real Time Decisioning		
	Synergistic Exploration	-Troilo, De Luca and Guenzi (2016)	
Cultural-Organisational Factors	Marketing-IT Collaboration		-Baird and Bain (2012) -Duprè (2013) -Ariker et al. (2014)
	Customer Centricity		-Sin et al (2005)
	Data Oriented Culture		-Davenport et al. (2012) -Mayhew et al. (2016)
Innovation	Innovation		-Den Hertog (2000) -Miles (2008) -Wooder and Baker (2012) -Barret et al. (2015)
Performance	Big Data Performance		

Control Variables	Firm Size (Number of employees)		
	Branch (Dummy)*		
	Data Team (Various BU, Dummy) **		
	Data Team (Centralized, Dummy) **		
	Number of data experts		

* This variable is 0 if a firm is not a branch of an international firm, 1 if it is
 ** This variable is 0 if the data experts are organised in Various BU and 1 if Centralized Data Team
 *** After Factor Analysis, see paragraph 6

Table 4 - Overview of variables

5. DATA COLLECTION

This study is based on the analysis of 121 survey data, collected from 96 Italian firms through the usage of Google Form for survey development and LinkedIn for survey sub ministration.

The dataset included 1079 people from 262 Italian firms, belonging to IT and Marketing functions, and from the firms' C-suite (CIO, CEO, CFO).

Following the Nomenclature générale des Activités économiques dans les Communautés Européennes (NACE), I selected some industries (see Appendix A) and through AIDA I created a database, from which I selected those firms that are involved in Big Data Project and contacted them via LinkedIn.

Of the 122 respondents (11,31% of sampling frame), 15 have been discarded, because they had a "Confidence" in the responses less than 6 of 10 (Confidence in the responses was an Item of the survey). The respondent firms' dimensions (that has been used as a control variable, see paragraph 4), together with the respondent roles distribution, is shown in Figure 2.

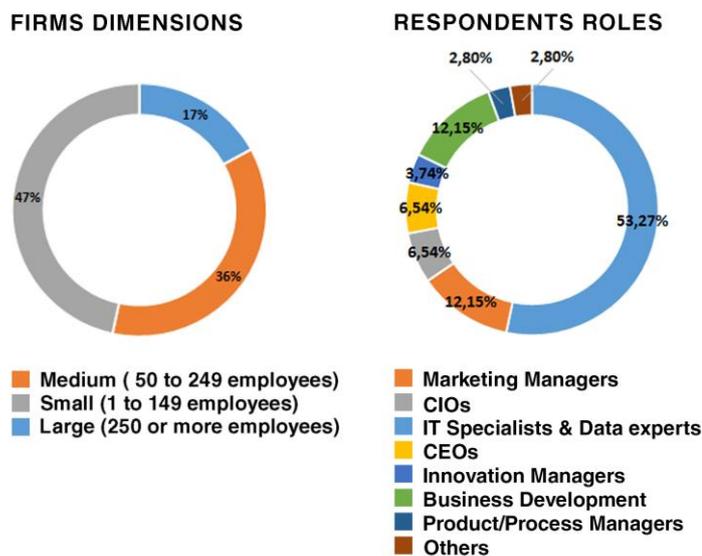


Figure 2 - Firms Dimensions and Respondents Roles

6. RESULTS AND DISCUSSION

To perform my analysis, I firstly run a unidimensional analysis (Factor Analysis) and a reliability analysis for every variable identified to confirm scales and reduce their items. The software package used has been SPSS. Results of this analysis have already been shown in Table 3 (see paragraph 4.3).

Each of the hypotheses was tested following the hierarchical regression method for each variable. Significant results of the analysis support most part of hypotheses. Only for hypotheses H7 and H8 I did not find significant results. The direct impact of Customer Centricity is, in fact, only verified on Innovation, and the direct impact of Data Oriented Culture is only verified on Performance.

Some more useful insights that have not been assumed emerged from data analysis:

- Three Vs have direct impact on Traditional Data Management Competences and on Basic Analytics Techniques: this show that in a data-rich environment, even if firms don't Invest in Big Data, they pose a threat for firms, that need to adapt to the massive volume, velocity and variety of data
- Big Data Investments don't affect Traditional Data Management Technologies competences and Basic Analytics Techniques
- Three Vs directly affect Real Time Decisioning process and Innovation, confirming the disruptive characteristics of Big Data
- Pattern Spotting directly affect Big Data Performance, without being mediated by Innovation
- Real Time Decisioning does not affect nor Innovation neither Big Data Performance

Table 5 offers a synopsis of the data analysis scheme and reports hypotheses and associated key findings from data analysis. For each variable are representing standardized beta and, on parenthesis, the relative t-value extracted from the regressions.

Results confirm most of the hypothesis, except for H7 and H8. In the following part of the paragraphs I am going to analyse the findings for each hypothesis.

Three Vs have a positive impact on Big Data Investments, confirming how they push the firms to invest in resources related to Big Data, such as Data Expert, Data Management Technologies and Analytics Techniques, that are increasingly becoming a priority in the resource allocation process.

In turn, Big Data Investments positively affect Data Management and Analytics competences at all firms' level: both frontline and backline employees, managers and people belonging to the C-suite need to increase their competences in terms of Data Management and Analytics, to extract valuable insights from them. These increased competences in Data Management Technologies and Analytics techniques allow firms to acquire new capabilities, represented by Data Density Processes: once gained knowledge about how to deal with data, firms start to apply it, extracting different insights depending on the time horizon and on the type of data studied. Obviously, to be activated, these processes need to be supported by Advanced Analytics techniques: more specifically, Pattern Spotting and Real Time Decisioning are activated by Operational Analytics competences, while Synergistic

Exploration, given its strategic value, by Predictive Analytics. This relation between Data Management and Analytics competences and Data Density process underline the importance to contextualise each data coming from precedent analyses, through a sense-making process.

Hypothesis	Results					Hypothesis Verified?
<i>H1: Three Vs encourage firms to invest in Advanced Data Management Technologies and Analytics Techniques (Big Data Investments)</i>	BDI .354*** (3.254)					Yes
<i>H2: Big Data Investments positively affect Data Management and Analytics competences</i>	TDM	ADM	BAT	OAT	PAT	Yes
	BDI	.158 (1.537)	.526*** (5.587)	.085 (.780)	.338*** (3.372)	.508*** (5.056)
<i>H3: Data Management and Analytics competences enable the firms to activate Data Density Processes</i>	TDM	PS	RTD	SE		Yes
		-0.12 (-.103)	-.163 (-1.543)	-.028 (-.228)		
	ADM	.013 (-.875)	.147 (1.112)	.275* (1.796)		
	BAT	-.014 (-.124)	.062 (-.602)	.131 (1.111)		
	OAT	.262** (2.264)	.269** (2.527)	.184 (1.490)		
	PAT	.202 (1.446)	.142 (1.099)	.264* (1.773)		
<i>H4: Data Density Processes enable the firms to generate Innovation from Big Data</i>		PS	INN			Yes
			.022 (-.190)			
		RTD	-.200 (-1.629)			
		SE	.230** (2.204)			
<i>H5: Marketing and IT Collaboration positively affect the firm's capabilities to activate Data Density Processes</i>	MIT	PS	RTD	SE		Yes
		.220*** (2.407)	.211** (2.500)	.394*** (4.047)		
<i>H6: Customer Centricity has a positive impact on Innovation</i>		CC	INN			Yes
			.302** (2.426)			
<i>H7: Customer Centricity has a positive impact on Performance</i>		CC	BDP			No
			-.096 (-.711)			
<i>H8: Data Oriented Culture has a positive impact on Innovation</i>		DOC	INN			No
			.131 (1.111)			
<i>H9: Data Oriented Culture has a positive impact on Performance</i>		DOC	BDP			Yes
			.293** (2.448)			
<i>H10: Innovation mediate the effect of Data Density Processes on Performance</i>		INN	BDP			Yes
			.400*** (3.694)			

NOTES: Each variable has been represented by an acronym: 3VS=Three Vs; BDI= Big Data Investments; TDM=Traditional Data Management; ADM= Advanced Data Management; BAT= Basic Analytics Techniques; OAT= Operational Analytics Techniques; PAT= Predictive Analytics Techniques; PS= Pattern Spotting; RTD= Real Time Decisioning; SE= Synergistic Exploration; INN= Innovation; BDP= Big Data Performance; MIT= Marketing-IT Collaboration; CC= Customer Centricity; DOC= Data Oriented Culture. *, ** and *** represent statistical significance at the 10%, 5% and 1% levels, respectively.

Table 5 - Hypotheses and key findings

Once applied, Data Density Processes seems to have a direct impact on Innovation, especially through Synergistic Exploration, the most strategic of Data Density Processes. This confirms how Big Data need to be supported by firm's strategy to create value through Innovation, as suggested by the literature. Another important relationship emerged from the analyses is the one that suggests a direct impact of Pattern Spotting on Big Data Performance, demonstrating how relying on past data for process improvements and failure analysis, with a medium-term goal, directly impact on firm's performance. Then, the combination of Pattern Spotting and Synergistic Exploration seems to be the most effective one to increase firms' Performance: the first one directly affects them, the second one is mediated by Innovation, given its characteristics of long-term goal.

From an organisational point of view, analyses underline the importance of Marketing-IT collaboration: more specifically, they confirmed its direct impact on all the Data Density Process. This is a confirmation of the insights given by the literature: Marketing and IT departments need to collaborate more and more, sharing resources and working together as a team to positively affect the firms' capabilities to activate Data Density Processes.

Customer Centricity directly impacts on Innovation, confirming how in a data-rich environment it is important to have a correct view of the customer at all firm's levels. Having a lot of data, coming from very different sources in short periods of time could generate confusion between the different firm's departments on the definition of customer: this challenge can be faced only through a meticulous design of organisational structure around the customers and a shared understanding of customers' needs.

Data Oriented Culture, instead, has a positive impact on Performance: once extracted useful insights from data, top management should take decisions based on these insights, to transform them in financial and economic value. In a data-rich environment insights not coming from data are not reliable and don't lead to any long-term value for the firms.

Finally, the direct impact of Innovation on Performance shows how even in a Big Data world, it is important to rely on the classic driver of Innovation, that are mediators between a sense-making process on data and the performance deriving from data, especially from a strategic point of view (given that synergistic exploration directly impacts on Innovation).

7. CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

The present work contributes to current literature about Big Data on many levels. First, it evidences the double-side challenges posed by them: in fact, they do not affect firms only from a technological point of view, but even from an organisational point of view. Technological competences and capabilities need to be supported by organisational structures, customer centricity and data oriented culture to extract value from data.

Second, the model constructed constitutes a useful tool for firms that want to survive and gain competitive advantage through Big Data: a systematic path that from Data Leads to Innovation and Performance, sources of value for the firms, has been designed and validated.

Finally, it has emerged how Innovation and its drivers remains important to extract value from Data: acquiring Data Management Technologies and applying Analytics Techniques without making sense of the insights gained to innovate cannot lead to long-term performance.

My research is subject to some limitations, many of which stem from the inevitable trade-offs between depth, generalizability and practical constraint.

First, the sample size was not sufficient to analyse data with a Confirmatory Factor Analysis and the Structural Equation Modelling, testing the entire model in one time: future research may extend the sample size and apply CFA to scale items and SEM to the model.

Second, constraints of time did not permit to study deeply the relationships not assumed during the conceptual model development. Future research could investigate deeply these relationships and refine the conceptual model developed during this research project.

Finally, the role of Real Time Decisioning is not clear in the model developed. Even if it was assumed to impact on Innovation, I found that it does not seem to have any direct impact on it. Future study may investigate which drivers are needed, and maybe can moderate, these relationships assumed during the conceptual model development.

APPENDIX A

INDUSTRIES (NACE CODE) SELECTED FOR THE DATA COLLECTION

- Electricity, gas, steam and air conditioning supply (35);
- Water collection, treatment and supply (36);
- Wholesale trade, except of motor vehicles and motorcycles (46);
- Postal and courier activities (53);
- Telecommunications (61);
- Computer programming, consultancy and related activities (62);
- Information service activities (63);
- Financial service activities, except insurance and pension funding (64);
- Insurance, reinsurance and pension funding, except compulsory social security (65);
- Legal and accounting activities (69);
- Activities of head offices, management consultancy activities (70);
- Scientific research and development (72);
- Advertising and market research (73);
- Employment activities (78);
- Office administrative, office support and other business support activities (82);
- Gambling and betting activities (92).

LA MIA ESPERIENZA A CARDIFF

Una sola pagina di elaborato non basterà mai a descrivere quanto l'esperienza di sei mesi vissuta in Galles, presso la Cardiff Business School, abbia contribuito alla mia crescita, sia dal punto di vista personale che dal punto di vista accademico.

Vorrei, in queste poche righe, trasmettere tutta la positività trasmessami da questa fantastica esperienza, che se mi chiedessero di tornare indietro rifarei senza alcun dubbio, e che consiglierei a chiunque abbia voglia di mettersi in gioco in un ambiente stimolante come quello della ricerca accademica. Dico mettersi in gioco perché,



come chiunque leggendo queste righe può immaginare, l'esperienza non è assolutamente tra le più semplici: un nuovo ambiente, un nuovo metodo di studio e di lavoro e il fatto di lavorare su un proprio progetto di ricerca, contribuiscono a rendere questo tipo di esperienza particolarmente "challenging".

Da un punto di vista personale, questa è stata la mia prima esperienza all'estero: solo con l'inizio di una laurea magistrale e con un primo approccio col mondo del lavoro, mi

sono reso conto di come un'esperienza simile fosse necessaria non solo per adeguarsi a quelle che sono le esigenze espressamente richieste dalle imprese, ma anche e soprattutto per iniziare ad adeguarsi ad un mondo ormai completamente globalizzato. Grazie all'aiuto della Professoressa Martini ed alla piena disponibilità fornitami dal tutor presso la Business School, il Professor Luigi De Luca, ho così deciso di lanciarmi in questa nuova esperienza: le difficoltà iniziali sono state molte, dalle barriere di tipo linguistico, alla ricerca di un alloggio, al fatto stesso di essere lontano da casa in un paese con cultura ed usanze radicalmente diverse dalla nostra. Una volta superate queste difficoltà iniziali, è stato tutto in discesa. Cardiff è una classica città universitaria, gremita di studenti provenienti da tutto il mondo: è stato fantastico venire a contatto con moltissime culture diverse, confrontandosi su usanze e modi di pensare. È facile immaginare come, date le circostanze, non sia stato difficile fare nuove amicizie e condividere esperienze fantastiche.

Da un punto di vista accademico, l'accoglienza riservatami da parte della Cardiff University è stata a dir poco fantastica: sin dal primo giorno lo staff Universitario mi ha fatto sentire a mio agio, a partire dal Professor De Luca, che mi ha accompagnato personalmente nel processo di iscrizione all'Università, alla segreteria studenti e al personale in generale. Sono venuto a contatto con moltissimi professori provenienti dai più svariati ambiti, in maniera sia formale che informale. Per quanto riguarda il progetto di tesi, questo si è rivelato molto interessante: mi ha portato a conoscere ed approfondire le logiche del mondo della ricerca accademica: è proprio questo mondo, conosciuto in una realtà accademica come quella anglosassone, che mi ha spronato a dare il mio meglio, a coltivare curiosità, voglia di imparare e a portare al termine il mio progetto di ricerca dando sempre il 100%. Questa esperienza mi ha profondamente cambiato, da un punto di vista professionale e personale, ed è sicuramente stata la scelta migliore per il mio progetto di tesi: non posso dunque che ringraziare la mia relatrice, la Professoressa Antonella Martini, e il mio correlatore, il Professor Luigi De Luca, per l'opportunità concessami e il supporto fornitomi.