

Chapter 8

An Exploratory Analysis Using Co–Authorship Network: Trends in Risk Behavior

Burçin Güçlü

Universitat Ramon Llull, Spain

Miguel Ángel Canela

Universidad de Navarra, Spain

Inés Alegre

Universidad de Navarra, Spain

ABSTRACT

Social network analysis has been widely used by organizational behavior researchers to stress the importance of the context, social connections, and social structure on human behavior. In the last decade, social network analysis has emerged as one of the most useful techniques for exploring online social networks, world wide web, e-mail traffic, and logistic operations. In this chapter, the authors present an application of social network analysis techniques for academic research. The authors choose Kahneman and Tversky's prospect theory as the focus of their analysis and, based on that, develop a co-authorship structure that depicts in a clear manner the key authors and/or the researchers that dominate and bridge different sub-fields in the field of management. The authors discuss the implications of this study for academic research and management discipline.

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INTRODUCTION

In the past twenty years, there have been extensive investments in information technologies infrastructure, which have improved the ability to collect data throughout the enterprise and spread them fast between the departments (for a recent report, see WEF, 2016). The digital revolution of these last twenty years challenges the already existing business models, traditional products, and services. Nowadays, companies adapt their traditional products and services to match the high demand for digitalized products. Digital customers are more demanding than the traditional customers, with a raising awareness of the availability of products and services.

The competition is even fiercer than before, such that the new digital era unleashes new competitive pressures that call for more information and communication technologies (ICT) innovation by firms. Because digital technologies are driving winner-takes-all dynamics for an increasing number of industries, it matters to get first to the market. For this reason, companies seek the most plausible ICT infrastructure and go digital as a business model. At the same time, information is now widely available on external events such as market trends, industry news, competitors' movements, social networks, etc. Organizations worldwide were handling on average 150 Exabytes (i.e. 150 billion Gigabytes) of data in 2005, and that this number has climbed up to 1,200 Exabytes in 2010. Wal-Mart, for instance, captures and processes data from more than a million transactions per hour (the Economist, 2010). This data expansion has led to an increasing interest in the methods for extracting useful information and knowledge from data. Due to such interest in business intelligence, the market has grown substantially in the past decade (the Economist, 2010).

This paper presents the state of the art and illustrates the application of social network analysis to academic research as a new contribution to business analytics. Our purpose is to conduct an intra-disciplinary research to explore decision making under risk using a robust method called co-authorship network analysis. Our method has a practical orientation, offering the researchers and practitioners the possibility to develop their own models in their computers. The structure of this paper is the following; to begin with, we provide a literature review on social network analysis and Prospect Theory (Kahneman & Tversky, 1979), which presents an updated version of the theory in order to correct for certain statistical flaws existing in the previous theory. Later on, we present our empirical work. We disclose our findings from the co-authorship analysis conducted on articles published in top journals in Management and Management-related fields citing Kahneman and Tversky (1979). Measures we

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