Preface

The growing importance of Internet in improving business performance and competitiveness in the global marketplace in the twenty-first century has drastically changed the strategies of companies towards manufacturing and marketing. As many conventional marketing approaches have become outdated today and have been completely transformed in view of the present needs of the companies to survive in the competitive marketplace, the new digital marketing approaches are being architected and continuously improved across the geo-demographic regions. The emerging digital focus on doing business is principally based on the philosophy of information analytics to develop right business decisions in the right destination market at an appropriate time. The information technology today provides the companies access to vast amounts of information about products, firms, and consumer behavior to use business analytics and make suitable decisions for quality business performance. The Internet is now anchoring decision making process in core business activities such as new product design, advertising, marketing and sales, consumer psychodynamics as information spreads through the word-of-mouth, new start-up funding, and customer service. Business analytics has been adopted by most companies as a significant tool for driving improved decision-making and increased returns on investments across the markets and industries. Growing advancements in information technology and cost effective data storage infrastructures have made the access of market information easier for the companies to process and store it in required quantities for managing data analysis to support dynamic decision making. The remarkable growth of social media, sensor and data capture technologies, mobile spatial information analysis across the markets, commercial online activities, and increasing interconnectivity across the market players involved in the business has evolved the concept of ‘Big Data’ to the business world. ‘Big Data’ offers great opportunities for the companies to apply information analysis strategically to harness the best decisions to improve business performance. The small and medium size companies are also using business analytics today as a business decision making tool not only to enhance business operations and managerial efficiencies but also to improve the customer experience in the competitive marketplace.

In every aspect of business, from the C-Suit to marketplace, customer relations, and social media, the process is generating as well as consuming voluminous information. Hence, inflow and outflow of information has become a dynamic hub in managing businesses today. More often the common business activities and consumer interactions create a trail of digitized data that can be stored, mined, and analyzed by companies to generate valuable business intelligence. With perennial advancements in the information technological and streamlined customer databases, companies have access to vast data warehouses of high-quality data that allows them to analyze the data clusters, understand market and customer behavior, and customize business strategies to stay sustainable in the marketplace. However, the major challenge in managing data mining, business analytics and data-driven policies is towards
analyzing the right information clusters and developing actionable policies. This book is an outgrowth of selected papers of the International Conference on Business Analytics Strategies and Cyber Security Management, co-hosted by International Management Institute, Bhubaneswar, India and EGADE Business School, Tecnologico de Monterrey, Mexico during December 11-12, 2015 at Bhubaneswar, India. The chapters in this book address information analysis related topics that are used for business decisions in the global marketplace. This book addresses the fact that business analytics is not a statistics or mathematics course but a logical process of decision making.

In the age of data-centric decision sciences, the advanced analytics approaches permit companies to derive inferences from the generic data bases. Right and valid inferences transform data into knowledge for a company, which drives business process transparency, improvements, and competitiveness of the company. While evaluating the need to institute analytics as part of data strategy of the company, it is necessary to develop skills on managing actionable knowledge. Information technologists play an indispensable role in business management today as a bridge between the executives to run analytics and make the decisions based on the results. Management of Big Data analytics projects needs a strong business background and operational competencies in the C-Suit to lead model analytics centers. In order to succeed in managing the business analytics, information technologists of the company should blend their experience with the innovation platforms and pre-defined initiatives to achieve business results. A forward-thinking analytics strategy thus needs to take place right at the bottom of the company engaging each employee in information analysis. Companies should also set the management priorities to reinforce functional goals at various operational levels with targets and metrics compatible to the information resources.

As business houses, governments, and individuals generate massive raw data as a byproduct of their activity, decision-makers and systems are increasing relying on information technology to analyze market information and other related socio-economic datasets systematically to improve decision-making and business performance. Some companies have automatized analytical and decision-making processes of the pre-determined information. Some chapters in this book examine real-world examples and cases to place data-mining techniques in context, to develop data-analytic thinking, and to illustrate that business analytics is both an art and science. Most companies today are engaged in carrying out the business analytics approaches to improve their international trade performance through developing awareness among managers on the key concepts in international trade, finance, marketing, strategy, and logistics and supply chains. The business analytics tools are applied to the context of cross-border businesses towards managing their international businesses better. Companies are experiencing the power of business analytics in re-shaping their business to make sustainable in the rapid growing complex global business environment. Employing high performance data visualization with the computing technologies like big data and cloud, companies are able to analyze the market competitiveness across hundreds of trading partners and develop market trends for large number of commodities by analyzing their performance in the across the markets historically.

Furtiveness in marketing among existing and emerging companies in the global market place has increased in the twenty-first century and has driven tactical thinking among firms to manage the market competition. Due to increasing competition, shifting market trends, and rapid emergence of consumption patterns, multinational companies are finding it difficult to manage their markets through conventional strategies. Unlocking the hidden insight in data presents companies with a viable alternative to determine their source of competitive advantage. This means that graduates with business analytics skills are in high demand across the globe. Multinational companies are employing covert market strategies
to gain first mover advantages and stay sustainable in the market against the growing competition. Most companies are inviting their resources in analyzing the market data through statistical and operations analysis to understand the market dynamics and guide formation of predictive models by application of optimization techniques and communication. These techniques are integrated in business analytics, which have emerged as a powerful tool to measure the market transformations and suggest the right ways of developing marketing strategies for sustaining against market competition. Companies play around both marketing strategies and tactics in an integrated mode to gain competitive advantage.

Besides the applications of business analytics in assessing the market trends and forecasting, use of Internet in business has enhanced the cyber threats despite the opportunity of being omnipresent on the global platform. Hackers frequently use the global network to steal vital business information and compel companies to compromise on various businesses issues. Thus, organizations today have to rethink their defenses and move from reaction to anticipation. Managing information security is a more complex issue than the technical challenges. The information management is built on the critical infrastructures, organization, and technology. Although critical infrastructures are beyond the direct control of the organization, balancing them is a critical component of corporate governance. Security lapses are management failures more than technical failures.

This anthology contributed by several authors on the business analytics and cyber security management aims at providing an international forum for rich discussion on reviewing and learning lessons from contemporary and innovative strategies in managing business analytics as well as the cyber security issues in the global markets. This book discusses new taxonomy of business analytical strategies for emerging markets and provides suggestions as how firms can improve cyber security in their business for securing against the data theft. Contrary to conventional wisdom, the contributions in this book would also contemplate on developing new visions on business analytics and cyber protection strategies for emerging markets.

We hope that this book would provide general and research based information on the subject and successfully drive new insights among the practicing managers, researchers, and students working on business analytics and cyber security management.

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April 15, 2016