Preface

The tendency for IT decision-makers to ignore low probability but high-impact risks to project plans is often an overlooked issue to be taken seriously into account. This notion of “black swan blindness” as coined by Flyvbjerg and Budzier (2011) provides what we can consider a beginning of a new chapter in the evaluation of organizational IT projects. IT managers tend not to see these black swans assuming that they’re rare. In fact, they happen to the extent that IT managers often blindly run into them without being able to identify or prevent them. This new concept in the IT risk management comes from the examination of 1,471 IT projects carried out by Bent Flyvbjerg and Alexander Budzier of Oxford University and McKinsey. They found out that large IT projects are on average 27% over budget and take 55% longer to complete than planned. The study also reported that IT projects are 20 times more likely to fail than other business projects, with one in six IT projects run out of control with average cost overruns of 200% (Budzier & Flyvbjerg, 2011). This means that failed IT projects are too frequent and failure can have major consequences. These results presage to IT managers that poorly conceived initiatives, those that are excessively complex, and those that are poorly managed or coordinated can be fatal to both IT managers and organization.

Not only IT projects which are actually reported to fail, many IT practitioners however, anticipate their projects will fail. According to Geneca recent survey, about 75% of IT executives lack of confidence in IT project success, admitting that their projects are either always or usually “doomed right from the start,” with 27% of them feel always this way. The survey also revealed that challenges reflect difficulty in defining project success (Geneca LLC, 2011).

These two main issues, the IT project failure and the IT practitioners’ anticipation of failure, contribute to advocate the ongoing debate in the academia on the information systems success measurement. Although this research stream has proliferated and nearly become a standalone stream within the information systems research field, more research is still needed to identify factors that contribute to information systems effectiveness and evaluation. To date, a number of information systems success models have been introduced. However, the scope and approach of these studies has little consensus on the assessment of information systems success, which urge for more exploration to better identify and understand the various measurements of these models.

This book is divided into six sections, which cover various aspects of Information Systems success. The first section, “Information Systems Success: Theories and Models” contains five chapters presenting new models and frameworks of the information systems success. The first chapter, “A Symbiotic Model for Information Systems Success Determination” by Kieren Jamieson addresses the issues of whether an information system has been a success or failure for the organization at a given point of time, noticing the deficiencies of the traditional approaches of information systems success measures. Adapting
biological relationship descriptions, a symbiotic model for the classification of information systems success and failure is proposed and used to evaluate the success of an information systems implementation by examining the results of a ten year longitudinal study in to an organization’s enterprise system (ES) implementation.

The second chapter, “Measuring Information Systems Success: a Comment on the Use of Perceptions” by Cees J. Gelderman and Rob J. Kusters investigates another issue on the information systems success, the perception of information systems as a surrogate measure, in order to determine the contribution of information systems to the overall organizational effectiveness. In doing so, Gelderman and Kusters developed and tested measurements to assess the validity of perceived system success as a surrogate measure for actual system success.

In the third chapter, “Information Systems for Organizational Effectiveness Model: A Rationale Alignment,” Govindan Marthandan and Chun Meng Tang expand our knowledge on information systems evaluation by introducing and validating the information systems for organizational effectiveness model. The model suggests that IS business value will be evident in the organization when there is a clear distinction between the various dimensions of organizational effectiveness, and the recognition of positive IS improvements within the individual dimensions of organizational effectiveness.

The fourth chapter entitled “Information Systems Success: A Review from a Bibliometric Analysis Focus” by Hugo Martinez, Luis Becerra, and Jaime Camacho presents and characterizes the publication activity of information systems success by analyzing data collected from the Science Citation Index and Social Science Citation Index databases from ISI Web of Science from 2001 to 2010. The findings suggest that information systems success literature has a positive growth rate and it is likely to continue with this tendency in the future. This chapter also propose to set up a common language framework that serves as a guide to researchers to develop a most mature body of knowledge.

The last chapter of this section, “Theoretical Foundations for Information Systems Success in Small and Medium-sized Enterprises” by Jan Devos, Hendrik Van Landeghem, and Dirk Deschoolmeester investigates four theories, namely technology acceptance model (TAM), theory of planned behaviour (TPB), the DeLone & McLean IS success model (D&M) and transaction cost economy (TCE) model in order to find theoretical foundations for information systems success in small and medium sized enterprise. This resulted to the introduction of a compound framework that delivers explanatory and predicting power for the successful adoption of IT/IS in SMEs.

The second section “IT Projects, Service Management and Performance” consists of two chapters. In the first chapter “Measuring IT Service Management Performance: A Model Development,” Francis Gacenga, Aileen Cater-Steel, Mark Toleman, and Wui-Gee Tan propose a model to measure IT service management (ITSM) performance based on a systematic literature review of the general areas of organisation performance measurement and the commonly used performance metrics. The authors have taken a holistic view in the development of the model, by integrating various approaches such as the balanced scorecard (BSC), broad economic perspectives and service oriented ITSM.

The second chapter in this section “Fuzzy Approach for Monitoring Projects Success in the IT/IS Industry” by Jose L. Salmeron and Cristina Lopez proposes monitoring risks effects on IT/IS projects success measures using the Fuzzy approach. It presents its applicability through an illustrative case. The method proposed give project managers insights into the causes of failure or delay of their IT/IS projects in order to develop effective strategies.

In the third section, “Information Systems Maintenance and Development,” two chapters are presented. The first chapter, “A Model to Assist the Maintenance vs Replacement Decision in Information Systems”
by O. Tolga Pusatli and Brian Regan extensively reviews and compiles factors emerged from software engineering, software quality assurance measurements and computer science literature, and proposes a model to help decision makers to explain maintenance and replacement decision of IS/component in a more itemized manner hence diminish overburden pressure of experience responsibility on them.

The second chapter, “A Steady-State Framework for Integrated Business Change and Information Systems Development and Maintenance” by Simon McGinnes investigates the information systems development during the maintenance phase, and proposes an alternative framework for “steady state” development which characterises IS work as evolutionary and inseparable from its context of business change, providing a blueprint for IS development without the need for projects, and offering improved chances of success when “big bang” project management would otherwise be the only option.

Section four, “Enterprise Resource Planning Systems” comes with two chapters. The first chapter, “Enterprise Resource Planning Acceptance Model (ERPAM): Extended TAM for ERP Systems in The Operational Phase of ERP Lifecycle” by Simona Sternad and Samo Bobek applies technology acceptance model in the enterprise resource planning context to examine groups of external factors which have impact on actual ERP system use.

The second chapter, “Specific Factors for Enterprise Resource Planning Success Measurement in Healthcare” by Stephan Kronbichler and Herwig Ostermann discusses the conceptual design of possibilities of how ERP projects can be more successful when considering critical success factors and success measurement models which were identified through reviewing the literature and incorporating practical experiences in the healthcare industry.

The fifth section, “Websites and E-commerce Systems” contains three chapters. The first chapter, “Website Evaluation: Issues and Challenges,” Ahmad Ghandour, Kenneth R. Deans, and George L. Benwell explore website evaluation and recognises the current challenges facing website evaluation. From reviewing the literature, this chapter identifies three perspectives when evaluating websites: user, designer and owner perspectives. While the user and the designer perspectives are well advanced in the literature, there is a relative dearth of scholarly studies that address the owners’ needs, in which authors studied in their second chapter of this section, “Website Evaluation Criteria: an Owner’s Perspective” in which they establish criteria to evaluate e-commerce websites based on an owner’s perception rather than the customer’s perception, which lead to the development of an evaluation framework of three dimensions of website offer, usage and payoff.

In the third chapter, “Antecedents of Children’s Satisfaction with Company Websites and Their Links with Brand Awareness” by Lucie Sermanet, Frank Goethals, Andrea Carugati, and Aurélie Leclercq-Vandelannoitte focuses on children’s satisfaction with the use of commercial websites. The chapter contextualizes the classic information systems success model of DeLone and McLean (1992, 2003) to information systems success with children in order to study children as users of information technology.

The last section of the book, “Information Systems Success Applications” consists of five chapters covering various applications of information systems success in practice. The first chapter of this section, “A Model to Measure E-Learning Systems Success” by Ahmed Younis Alsabawy, Aileen Cater-Steel, and Jeffrey Soar argues about the factors which are most effective for measuring e-learning systems success and proposes an evaluation methodology model to assess e-learning systems success.

The second chapter, “End-User Participation in Health IT Development: The EUPHIT Method” by Anna Marie Balling Høstgaard presents a new method for studying and understanding the end-user participation in the health IT development. The method was developed and used for the first time throughout a research study of an EHR planning process in a Danish region.
The third chapter, “The Development of a Model for Information Systems Security Success” by Kimberley D. Dunkerley and Gurvirender Tejay develops a parsimonious model for information security success within organizations, and consider its applicability within the contexts of government and healthcare.

The fourth chapter of this section, “Evolutional Patterns of Intranet Applications: Organizational Issues and Information Systems Success” by Pietro Previtali proposes a theoretical and empirical examination of intranet evolutional patterns. It analyses intranet applications and functionalities and classify them according to taxonomy in order to differentiate between an institutional intranet, a knowledge management intranet and an operating intranet.

The last chapter of this section, “Designing an Information Systems Performance Management System: The Case of an Insurance Corporation” by Angela Perego describes and discusses the design of an IS performance management system implemented by an Insurance Corporation, bringing a real-world experience and evidence that support the existing theoretical explanation of the information systems performance evaluation.

The nineteen chapters of the book present a quality collection of various scholars presenting their recent research on theories and practices which will benefit both academic researchers and practitioners. As such, Measuring Organizational Information Systems Success: New Technologies and Practices claims to be a definitive state-of-the-art collection and to prompt the future direction for IT managers to identify applicable theories and practices in the evaluation of information systems and minimize the IT failure in organization.

The editors hope this book will become instrumental in the expansion of the Information Systems success stream and will promote the continued growth of the information systems development in general.

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REFERENCES

