

IBSA-STUDIES IN MANAGEMENT AND INNOVATION

EDITED BY HELGA MEYER, REBECCA PORTERFIELD, REINHOLD ROTH

Volume

1

NEW STRATEGIES FOR COMPETITIVE ADVANTAGE

HELGA MEYER | REINHOLD ROTH (EDS.)



Kellner
Bremen • Boston

New Strategies for Competitive Advantage

Edited by Helga Meyer, Reinhold Roth

With contribution by

Alexander A. Eberle
Anahid Shamsi Nejad
Anirudh Krishen Koul

**IBSA-Studies in Management and Innovation
Volume 1**



New Strategies for Competitive Advantage

Edited by Helga Meyer, Reinhold Roth

With contribution by

Alexander A. Eberle • Anahid Shamsi Nejad • Anirudh Krishen Koul

IBSA-Studies in Management and Innovation

Volume 1

© 2011 by Kellner PublishingHouse • Bremen | Boston

Contact: Kellner PublishingHouse

St.-Pauli-Deich 3 | 28199 Bremen, Germany

Fon +49 (0) 4 21 - 77 8 66 | Fax +49 (0) 4 21 - 70 40 58

sachbuch@kellnerverlag.de | www.kellnerverlag.de

Picture Back Cover: Reinhold Roth

Coverdesign and Cover Picture: Designbüro Möhlenkamp, Bremen

ISBN 978-3-939928-53-9

Preface

The current pace of advancement in the field of international business has a direct and immediate impact on productivity on the daily decision making process. Consequently young professionals when entering their career have to learn on the job in real time and have to be as well trained as possible. To equip international, innovative students worldwide from diverse cultural, geographical and professional backgrounds with the needed skills and qualification the International Master of Business Administration (IMBA) program was formed in 2003. Studying in two different countries and encountering two cultures gives students in the IMBA program an excellent chance to communicate and live in both environments successfully.

Using our experience resulting from the IMBA program, today we take the opportunity to start a voyage in providing alternative visions and personal suggestions to the study of international business. We offer a new series of books in management and innovation to share our expertise, knowledge and empirical findings from our applied research in this new and exciting field. With the results presented we intend to help young professionals and managers answer the growing challenges in a technology driven global work environment.

This new series of books is an initiative of the University of North Carolina Wilmington (UNCW), U.S.A. and the Bremen University of Applied Sciences (Bremen UAS), Germany. Both universities have formed close partnerships in the International Business School Alliance (IBSA) since 2003. The IMBA program, a dual master award with seven, non-competing specializations is a product of IBSA, a growing network of internationally oriented business schools with presently seven members:

Bremen University of Applied Sciences, Germany • Universitat de Valencia, Spain • University of North Carolina Wilmington, U.S.A. Institute of International Business Moscow, Russia • University of Hertfordshire, Hatfield near London, U.K. • Universiti Tun Abdul Razak, Kuala Lumpur, Malaysia • Advancia-Negocia, Paris, France.

University consortia like IBSA are imperative for international qualification. Our graduates from all parts of the globe have made significant contributions as part of their required research projects for strategic improvements of both multinational corporations and small to medium sized corporations.

This new series of books in management and innovation is a new chapter in the development of IBSA. We are convinced that we can continue to offer interesting topics, perspectives and solutions to provide managers and companies the greatest chances of success.

Table of Contents

Preface	3
Introduction	6
Alexander A. Eberle: A Comparison of PMI and IPMA Approaches: Analysis to Support the Project Management Standard and Certification System Selection	10
1 Introduction	11
2 Terms and Definitions	16
3 Research Design	25
4 The Comparison	34
4.1 Comparison of IPMA and PMI	34
4.2 Comparison of PMBOK® Guide 4th Edition and ICB Version 3.0.	41
4.3 Comparison of the Associated Certification Systems	70
4.4 The Selection Process	84
5 Conclusions	101
Bibliography	106
Appendix A: PMBOK® Guide 4th ed. Tools and Techniques and ICB v. 3.0 ..	110
Appendix B: PM Standards Diffusion in Germany and Switzerland	116
 Anahid Shamsi Nejad: Open Innovation. The Lead User Method as a Tool for New Product Development Projects of Medical Devices – Lead User Identification at Johnson & Johnson Medical	118
1 Introduction	119
2 Key Definitions and Concepts	127
3 Literature Review: The Lead User Theory	139
4 Research Design and Methodology	158
5 Empirical Part	166
5.1 Case Study Analysis: Lead User projects at Ethicon	166
5.2 Lead User Characteristics in the Study Field	178
5.3 Search Field Characteristics	191
5.4 Discussion of Findings and Managerial Implications	193
5.5 Limitations and Future Research	206
6 Conclusions	209
Bibliography	214

Anirudh Krishen Koul: Strategies for Low Cost Carriers in Multi-Markets 220
of the Asia Pacific Region

1 Introduction	221
2 Evolution of Low Cost Carriers	224
3 Low Cost Carriers – Ryanair as LCC Model	237
4 Asia Pacific as a New Market for Low Cost Carriers	251
5 Forging Alliances within the Low Cost Carrier Segment:	
An Analysis of AirAsia	264
5.1 AirAsia	264
5.2 Reasons for AirAsia of forming an Alliance	268
5.3 Market Position	273
5.4 AirAsia Business Model	280
6 Conclusions	284
Bibilography	287
About the Editors	292
About the Authors	294

Introduction

Teaching in a global classroom, learning in multicultural groups and undertaking research projects with client companies provide a unique view on problem solving. In today's global environment there is no easy way to sustain value creation in highly competitive markets. It is not surprising to learn how much expertise and effort managers have to expend in the search for the optimum business or marketing plan. This is especially true in successful corporate settings where introducing change to optimize opportunities is a very risk taking decision under extreme uncertainties.

The research studies in this first volume of the *IBSA-Studies in Management and Innovation* are offered to individuals and companies who are open to improvements and new ideas. We believe that we can provide valuable insights to the decision making process. The innovative strategies to gain competitive advantage laid out in this edition focus on three important aspects: Standards for implementing project management, identification of lead users for the development of new medical devices in a technology and knowledge driven environment and the comparison of two low cost carrier business models in two different markets.

The first study presented in this book by Alexander A. Eberle helps management to choose between competing standards for implementing project management. It is well documented that project management continues to grow and is now applied in a wide spectrum of business sectors. There are two main professional organizations that operate at the international level fostering the discipline: the Project Management Institute (PMI) and the International Project Management Association (IPMA). PMI is a highly centralized American-based organization offering standardized products and operating from its headquarter in Pennsylvania, U.S.A. Its activities are implemented worldwide through structures called chapters. IPMA instead has a confederate nature, being an umbrella organization that brings together 50 local project management associations with a poly-centric predisposition allowing more local responsiveness and flexibility in implementing a common project management approach. There are many standards available on the market, however, due to their global relevance, only the PMI and IPMA approaches were considered in Alexander A. Eberle's research. The main research questions of his study were: "*Which approach of the main global project management organizations (PMI and IPMA) is better for a given company?*" Or from an applicative perspective:

“Which project management standard and certification system (IPMA vs. PMI) should be selected, implemented and supported by an organization?”

This selection dilemma is not just a strategic question; it is a choice that if taken incorrectly may produce huge costs of change or business failure. Should the PMBOK® Guide of PMI or should the ICB of the IPMA be used? Is an IPMA certification better than a PMI certification? Two steps were undertaken to address the problem. First, an updated and in-depth comparison of the described documents and associated certification systems was developed to provide the management with the required information on the two approaches. Second, the aspects to be considered during the selection process were investigated through interviews carried out with experts and practitioners. As a result Eberle presented a selection model helping management to face the selection dilemma.

The main route to achieve business success in a global setting is the ability to continually innovate and renew. Importantly, new product development need not come just from in-house dynamics, but also from the application of new paradigms, or through input from clients and customers, or perhaps inviting expertise from other companies in highly specialized sections. For example, entrepreneurs who are operating in an evolving setting are dependent on tools like the *lead user method* in order to cope with the innovation risk, particularly in reduction of cost and time of new product development. Anahid Shamsi Nejad, another contributor to the first edition, investigated in her research project how lead users can be effectively identified for the development of new medical devices. Her case study analysis is based on information, empirical data and insights from interviews by Ethicon GmbH, a subsidiary company of Johnson & Johnson Medical in Germany. From her research Anahid Shamsi Nejad draws four major conclusions: *“First, the lead user search process can become complex if there is no clear target profile defined at the beginning. Second, in the study field someone who is able to recognize and communicate ‘future’ problems can already be regarded as a lead user. Third, given the high hurdles to innovation, intrinsically motivated lead users tend to be the source of innovation. Fourth, networking techniques provide the highest potential in order to identify rare lead users but the definition of a clear target profile and the adaption to search field specifics is necessary.”* Indeed, a better understanding of the *lead user method* is essential in maintaining progress to compete and stay ahead of the curve.

A third case in point in this volume is the airline industry. Traditionally the transportation industry, particularly the airline industry, had been highly governmentally regulated. However, with the deregulation of this industry in the United States in the early eighties, and similar policy adopted by the European Union in the nineties traditional carriers (regular and charter airlines) were challenged by a new type of competitor: the low cost carrier (LCC). Consequently, Southwest Airline was established 1971 in the United States, followed by Ryanair 1997 in the European Union and later by AirAsia in the Asia Pacific region in 2000. Based on the concept of innovative cost cutting and strategic marketing, these airlines are able to attract a rapidly growing number of passengers.

In 2010 Anirudh Krishen Koul's research, the third author in our first edition, focused on the strategic approach of AirAsia, the leading LCC in the fastest growing aviation market in the world. He found that AirAsia followed the original LCC type business model of Ryanair, where it relied on an entirely different expansion strategy. Ryanair on the one hand maintained a monopoly strategy by spreading its bases all over Europe. AirAsia on the other hand expanded by establishing subsidiaries in foreign markets and by forming ventures or alliances with existing LCC in Asia. It should be noted that building strategic alliances is not a new concept in the aviation industry. Various full service carriers have created and are nurturing multinational arrangements like Star Alliance, Sky Team, One World, etc. However, AirAsia has been the first airline to create a cost alliance with Jetstar, an Australian airline, in the LCC segment in the Asia Pacific market, demonstrating its capability for strategic innovation to keep and expand its position as a leader in cost in the Asia Pacific air travel industry.

Today, more than ever before, successful companies focus on their ability to develop new strategies and methods within their highly complex and diversified business operations as this seems to be the only chance to turn the constraints of innovation pressure and the fear of missing great opportunities into a competitive advantage.

Our first volume of the *IBSA Studies in Management and Innovation* would not have been possible without the help of the Bremen University of Applied Sciences (Bremen UAS), the University of North Carolina at Wilmington (UNCW), and the participating companies and business professionals. First of all our thanks goes to the authors who carried out these case studies with creativity, commitment and diligence in the final project in their dual degree program, the International Master of Business Administration at

the International Graduate Center in Bremen. We are also grateful to our international teaching team, especially to Prof. Dr. Drew Rosen (UNCW), Prof. Dr. Peter Laudi, IMBA Course Director, and Peter Falk, M.A., B.A. (Bremen UAS), involved in the supervising procedure of the master thesis. Our thanks are also due to our Deputy Rector for Research Prof. Dr. Uwe Apel and our Dean Prof. Dr. Dietwart Runte (Bremen UAS) for their financial aid. In addition, we are grateful to the very valuable editorial help done by our colleague Prof. Dr. Luther Lawson (UNCW). Finally we want to extend our thanks to all the people at Kellner PublishingHouse for their efforts and support, especially Manuel Dotzauer and Klaus Kellner.

HELGA MEYER
REINHOLD ROTH
BREMEN 2011

Alexander A. Eberle

**A Comparison of PMI and IPMA Approaches:
Analysis to Support the Project Management
Standard and Certification System Selection**

1 Introduction

The birth of modern project management is often associated with the implementation of NASA's Apollo program (Morris et al. 2006, p. 717). Nowadays, professional project management is applied within a wide spectrum of areas, not just in aerospace. Defence, information and communication technology, banking, energy, pharmaceuticals, construction and government are just some of the project management application areas (Wideman 1995, pp. 71–72).

The importance of project management and its direct relation to profitability were recognized only recently by the business world (Kerzner 2004, p. 3). Probably because of the new context that organizations have observed over the last decade. In fact, they had to face a higher level of competition and higher product, service and process innovation rates. Those trends put more emphasis on the time to market factor (Aubry et al. 2007, p. 328). Project management is now accepted as a well-developed domain for the exercise of professional expertise and an academic research area (White & Fortune 2002, p. 1). The discipline provides methods and tools to get the work done on time, on budget and on specification. Therefore, if project management is applied properly, it can improve the ability of being successful in the current business world.

Standardization is a process that involves many benefits. Also in project management, different standards were developed. They are widely used for training and development of human resources, as support for certification programs and as corporate project methodologies. The latter use bases on the supposition that there is a direct relation between the application of a standard and the performance on the workplace (Crawford & Pollack 2007, p. 87). In fact, by introducing a standard it is expected to improve communication regarding project management issues, especially by harmonizing the project management terminology. Another main expectation is to improve the quality of the processes (Ahlemann 2009, p. 300). Standards diffusion comes along with the spread of project management certifications. The necessity to certify employees' competence and knowledge in project management through important organizations keeps rising.

The certification in fact, has positive aspects for different stakeholders. An individual who is certified obtains some security of his/her job position. In a certification a client sees the guarantee of project management professional competence. For the society, the diffusion of project manage-

ment certifications means standardization of knowledge, and this is seen as a positive outcome (Mosca 2009, p. 1; Wirth & Tryloff 1995, p. 109). The main professional organizations developing project management standards with worldwide focus offer their own certification systems, based on their respective standards. Although it can be disputed on what a standard exactly is, most practitioners do not distinguish between proper standards and guidelines on the one hand and professional bodies of knowledge on the other hand (Ahlemann 2009, p. 292).

Once the management of an organization decides that the benefits of project management exceed the costs of its implementation, it has to face some predominant questions. One of the first questions arising is whether or not to use a standard, and in case this receives a positive answer, which standard should be chosen becomes relevant (Crawford 2000, pp. 2–3). Currently, there are two main professional organizations in project management that operate at an international level. They provide both project management standards and certifications. These are the Project Management Institute – PMI and the International Project Management Association – IPMA. They publish respectively the PMBOK® Guide (PMI 2008) and the IPMA Competence Baseline (IPMA 2006) as sector and project-independent guidelines or standards. The associated certification programs are strictly related to them. The advantage of using such widespread standards with respect to industry- or project-specific ones, is that they can improve synergies in inter-organizational projects; they will be updated and keep their relevance in the future (Ahlemann et al. 2009, p. 301).

The selection dilemma

This research addresses the selection dilemma arising when the management of an organization has to choose between different project management standards and certification systems. In particular, due to their global relevance, only the PMI and IPMA approaches are considered. A recent study on German and Swiss enterprises (Ahlemann et al., 2009) has shown that the PMBOK® Guide and the ICB, together with its local adaptation, are the project management standards most diffused in that region. Within the companies that applied a project management standard, 82.4% used at least one of the described standards (source: further elaboration of the raw survey data of the study, courtesy of Frederik Ahlemann).

In the past, there was a strong interest in developing a common global project management body of knowledge or standard (Crawford 2000, p. 3). However, until now, little progress has been achieved in agree-

ing on an international standard for project management. The main obstacles towards a global standard and a unified project management profession seem to be political issues and vested interests (Crawford et al. 2007, p. 7). The failed attempts of the major players in creating a common global standard and certification system increase the relevance of this research.

According to Garcia (2005, p. 28), the standard should be selected by evaluating the fit of the organization's climate with the standard assumptions related to organizational issues (sponsorship needed, values, skills and strategy). Nonetheless, in the decision making process, the management may also account for other factors such as the stakeholder's acceptance of the standard. Further, Garcia suggested to consider if the standard is a requirement for market entry or to maintain the position in the current market, and if the costs of development, maintenance, etc. will produce a return.

From the presented discussion it turns out that the subject is indeed very topical. As a further indicator of this, an expert seminar took place the 6th of June 2009 in Vienna concluding the Happy Project '09 conference. The international project management approaches of the IPMA, PMI and other organizations were compared in this occasion and explored by experts (Huemann 2009). In conclusion, the choice of the optimal project management standard to implement is apparently quite complex. Moreover, it is of strategic importance since once a standard has been introduced, the costs of change may be considerable or it may be too late for the business to react to the market demands.

The research question

Money and energy are wasted by individuals and organizations while making choices between competing standards and qualifications in project management (Crawford in: Morris & Pinto 2007, p. 1187). Therefore, this study aims at providing support during the selection process. In particular, the research question is: "Which project management approach between those offered by PMI and IPMA is better for a given company?" that is: "Which project management standard and/or certification system provided by the two main global professional associations should be selected?"

The objective of this research is to help the management of an organization that is facing the described selection dilemma. Two steps were undertaken to address the problem. First, an updated comparison of the described documents and associated certification systems was developed. This was done to provide the management with the required information on the two approaches to take a wise decision. Second, the aspects to be

considered during the selection process were investigated. This was accomplished through interviews carried out with experts and practitioners. Finally, a model for standard selection was developed.

Furthermore, there is no proper analytical comparison between the different standards or bodies of knowledge available on the market. An attempt of comparing project management bodies of knowledge was roughly carried out in 1995 (Wirth & Tryloff 1995). But in the last 15 years there has not been any trace in the literature of an analysis studying differences and commonalities, weaknesses and strengths of project management standards. Moreover, since 1995, the bodies of knowledge have had major changes through the different versions and editions that were issued. Thus, it was decided to present an up to date comparison of the two approaches to support the management during the decision process. This research work was conducted prevalently using secondary data. Due to the fact that the research question was not concretely addressed previously in the literature, the research is an exploratory study and thus of qualitative nature. Starting from the results of this thesis, new studies could be pursued. The following objectives were set:

- To present and compare the IPMA and the PMI
- To develop a comparison of the PMBOK® Guide 4th edition and the ICB version 3.0
- To develop a comparison of IPMA and PMI certification systems
- To investigate the main aspects to be considered during the selection between the two approaches
- To provide useful recommendations

The study aims at supporting the management in the decision making process related to the choice between project management standards and certification systems. However, PMI and IPMA are not the only organizations working in these areas. For instance, another standard is gaining popularity and has a consistent market share, especially in information technology: PRINCE2. But since it is not widespread as the other two standards, it is not considered in the present study. Further, all the other myriad of standards available are not taken into account. Often, they only have national relevance or are industry specific.

This work does not address the question if project management should be implemented in an organization, and if this should be done applying a widespread standard. These issues need to be assessed by each company depending on the particular situation. This research assumes that