Managerial Strategies and Practice in the Asian Business Sector

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During the past one decade we have witnessed an increase in number of literatures on ancient wisdom in leadership. Among the Indian (Asian) literatures, the Bhagavad-Gita is often cited by many scholars. Therefore, in this chapter, the authors attempt to draw a parallel between the transformational leadership and the Bhagavad-Gita. The significance of transformational leadership has received great attention and good amount of study has been done in this area. For this chapter, the authors have employed hermeneutics, which is a methodology used for the interpretation of ancient literatures. The Bhagavad-Gita advocates a consciousness and a spirit-centered approach to transformational leadership based on eternal values and moral principles. This chapter is likely to provide insights into Indian (Asian) leadership (and management) strategies for Western business leaders, enabling them to work more effectively with Indian business leaders in India, and in regions where there are significant Indian population.

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Bahaudin G Mujtaba, The H. Wayne Huizenga School of Business and Entrepreneurship, USA

Globalization has placed modern organizations in tremendous competition locally and regionally across borders; thus, the ultimate goal of every organization is the same which is profitable survival. In order to make sure that this profitable survival goal does not come at the cost of harming others, guiding principles are needed to bring goodness and fairness for the stakeholders’ interests. This paves the way for designing, implementing and adopting ethical principles in the organization to keep competition fair and just. This chapter highlights the significance of adopting ethical practices in organizations at the threshold of 21st century and its challenges. It discusses how individual ethics system has been formed which further goes to make a healthy workplace. As religion has always been a source of inspiration for its followers, hence, this chapter attempts to trace ethical inspirations in religious teachings, specifically Islamic work ethics. Recommendations for training and development are provided.
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Rituparna Das, Centre of Risk Management and Derivatives, India
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This chapter analyzes the business of shadow banking practiced by non-banking financial companies, that are subsidiaries of bank-groups or conglomerates across the continents. The central banks want to stop shadow banking because it has hidden regulatory arbitrage in it, that can create distortions and additional risks to the financial systems. Three countries - one each from Belgium in Europe, Canada in North America and China in Asia in addition to USA and UK along with India are taken as cases in this chapter. This chapter inquires into whether consolidated supervision can work as a way out of the problem of shadow banking.

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As the second largest economy in the world and one of the BRIC countries, China has been a major inward FDI receiver and competing ground for MNEs. Entry mode strategy has become a critical factor to the success of MNEs in China. Common among different approaches is sensitivity to the cultural nuances of Chinese society and, in particular, to the norms of government actors at the Central, Provincial and Local government levels. The role of culture in inward FDI presents unique challenges and opportunities to MNC’s in establishing a presence in one of the world’s largest market. Entry strategies are discussed as well as the role that culture played in specific MNC’s entries. The recent anti-corruption campaign in China has brought much attention from the outside world. Its impact on MNEs business model in China was discussed in this study. Implications for HR practitioners and managers are reviewed as well.

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Jennifer H. Gao, Macao Polytechnic Institute, Macao.

Previous research suggested that Corporate Social Responsibility (CSR) is positively related to organization’s attractiveness to potential employees. This chapter tries to explore the effective dimensions of CSR on employee engagement and the mediating factors that lay between the two constructs. It is proposed that CSR has a direct impact on employee engagement, and that perceived organizational support (POS) and Chinese values mediate this relationship, so CSR may also contribute indirectly to employee engagement. Data were collected from 314 employees in the tourism sector in Macao. Results support the hypotheses, as the relationship between CSR and employee engagement is fully mediated by POS and Chinese Values. Implications to theory and practice, with limitations and future research are presented.
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Harsh V. Verma, University of Delhi, India
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‘Grooming’ is a multi-billion dollar industry. Numerous brands participate in grooming market. Grooming is transformative. These products derive their significance from their psycho-socio-cultural roles. Grooming was found to be a three dimensional phenomena both for men and women. In case of men these dimensions were physical, psychological, and behavioral. And for women group, the other two dimensions remained same but behavioral dimension was replaced by beauty. It is these dimensions which give rise to consumption constellation and demarcate what product categories are relevant in the perusal of goal of grooming. Well groomed people are rare and uncommon. It is this rarity which renders a groomed state as aspirational and desirable. Being well groomed is advantageous for two reasons: it eases negotiation of social turf and psychologically it transforms identity into confident and energetic self. It is through these psycho-social processes, being well groomed gives an advantage over others in securing success.

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Ron Berger, College of Law and Business, Israel

Recent research on indigenous management has created the potential for more diverse, and innovative international business research (Holtbrugge, Narayanan and Wang, 2011). In this conceptual chapter, I extend the existing literature on indigenous management, with an integration into, bottom of pyramid country research such as India (Prahalad and Hart, 2004; London and Hart, 2004; Berger, 2014). In the 21st century, eighty percent of the world’s population is still considered developing, i.e. having a per capita income of less than U.S. $1,000 dollars per year. Most of these are emerging. This chapter focuses on the importance of national institutions and their potential lessons for, bottom of pyramid countries. I argue that national institutions play a key role in indigenous management research, through their positive impact on the, development of bottom of pyramid countries.

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Chandra Sekhar Patro, GVP College of Engineering, India

In the continuously developing economy, organizations should be able to anticipate the technological innovations and compete with other organizations worldwide. This need makes an organization’s ability to evolve through its employees’ learning and continuous development. In this context employee retention has become a most critical issue for all the organizations as a result of the shortage of skilled labor, economic growth and employee turnover. Employee retention refers to the various policies and practices which let the employees stick to an organization for a longer period of time. The employees are the real assets of any organization, so the management should exert some effort to determine the non-monetary interests and preferences of its key employees, and then attempt to meet these preferences in action. This study is an attempt to identify the various retention policies practiced in different public and private organisations, and evaluate the effectiveness of these policies on employees’ efficiency and its influence on the overall productivity of an organisation.
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Hao Hu, University of Macau, China
Yitao Wang, University of Macau, China

Investigating how pharmaceutical firms from emerging economies internationalize themselves to meet the knowledge- and investment-intensive challenges of pharmaceutical industry has become an inviting topic for both academia and industry. This paper explores the internationalization strategies and driving factors of Chinese pharmaceutical firms. Through applying text analytics, four internationalization patterns of Chinese pharmaceutical firms are identified, namely, (1) market seeking by the state-owned; (2) opportunity exploring by the emerging-private; (3) culture penetration by TCM firms; and (4) global integration by CROs. It shows that the internationalization of Chinese pharmaceutical firms is driven by three key factors: firm ownership, business scope and value chain positioning. This study attempts not only to provide empirical evidence of internationalization of Chinese pharmaceutical firms, but also to contribute to the field of study on corporate internationalization in the complex-system sector.

Chapter 10
A Revolutionary Look at Knowledge Management: Considering Intellectual Assets as Facilitating Infrastructure

Khadijeh Rouzbehani, University of Tehran, Iran

The implementation of knowledge management for organization requires a systematic perspective about various organizational factors. Appropriateness of these factors and their integration and coordination is a vital prerequisite to implement knowledge management effectively. The primary purpose of this chapter is investigating the relationship between three fundamental aspects of intellectual assets- human capital, structural capital and relational capital- with knowledge management practices. The method of research is descriptive and co-relational which was conducted in a petrochemical Company in Tehran whose total number of personnel was 720 and the sample of 265 members were selected as statistical sampling. The findings prove there are significant relationships between these intellectual assets and knowledge management practices. These findings support the necessity of preparing the prerequisites of effective implementation of knowledge management. Accordingly an organization characterized by more developed intellectual capitals can benefit more from KM.

Chapter 11
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Hyung Min Kim, Xi'an Jiaotong-Liverpool University, China
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The aim of this chapter is to develop a better understanding of interactions of Korean firms in Suzhou in terms of supply chain, manufacturing networks and logistics. By reviewing the key literature in industry clusters, international strategy, manufacturing systems and logistics management, a conceptual framework is designed to capture the key roles of Korean MNE, SMEs, and local SIP service organizations. Case
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This chapter aims to promote leadership development and talent management in modern organizations, thus describing the theoretical and practical overviews of leadership, leadership development, and talent management; the importance of leadership development in modern organizations; and the importance of talent management in modern organizations. Promoting leadership development and talent management is required for modern organizations that seek to serve suppliers and customers, improve business performance, reinforce competitiveness, and gain continuous effectiveness in the digital age. Therefore, it is necessary to promote their leadership development and talent management, establish a strategic plan to regularly check their practical advancements, and immediately respond to leadership development and talent management needs of executives and employees in modern organizations. Promoting leadership development and talent management in modern organizations has the potential to enhance organizational performance and reach strategic goals in the era of globalization.

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Heliang Zhu, Capital University of Economics and Business, China
Xi Zhang, Tianjin University, China
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China’s gold futures market has been in market for more than four years, is the risk transfer function fully realized? How the performance of hedging? Based on the data of futures prices and spot prices from January 9th of 2008 to December 31st of 2010, we use the following four statistical models such as traditional regression model (OLS), two-variable vector auto regression model (B-VAR), error correction hedging model (ECM), and error correction GARCH model (EC-GARCH) to perform stationarity and
cointegration test. On the basis of minimum risk hedge ratio estimated, the following conclusions are made based on the study: (1) As China’s gold futures market has run for more than three years, hedge is effective through the gold futures market, which can significantly reduce the participants’ risk of price fluctuation; (2) In practice, hedging ratio should be rationally determined by different models according to different hedging length and different expectations. Based on these conclusions, this paper also made corresponding policy recommendations.

Chapter 15
What Attracts Foreign Direct Investments in Asian Economies? An Institutional Approach
to FDI

Hironori Tohyama, Shizuoka University, Japan

This chapter focuses on institutional configurations in host economies and examines the configurations that had a high propensity for foreign direct investment (FDI) inflows in Asian economies. While many previous studies on the relationship between FDI and growth focus on institutions in host economies, they are apt to search for one and/or best institutions. They do not perceive heterogeneous sets of linked institutions. This chapter contributes to the existing literature in a twofold manner. First, this analysis, based on multiple factor analysis, demonstrates a substantial variation in institutional configurations across Asian economies in attracting FDI. These Asian economies can be categorized into three clusters. Second, the fuzzy-set quality comparative analysis shows that two of the institutional configurations have a high propensity for FDI. The one found in Singapore relies on institutional complementarities similar to liberal market economies, while the other one, which is characteristic to Thailand, focuses on human capital formation in Asian welfare capitalism.

Chapter 16
Youth Entrepreneurship in India: Outlook and Obstacle

Neeta Baporikar, Savitribai Phule Pune University, India

Governments and local communities globally have recognized that key to building prosperity and stimulating regional growth is fostering entrepreneurship - mainly youth entrepreneurship. India is no exception, with so many educated yet unemployed youth; continuous policies are being drawn and attempts made for promoting youth entrepreneurship. Unemployment for educated youth has become particularly acute since the education explosion in early 2000’s. Though the promotion of entrepreneurship as a possible source of job creation, empowerment and resources dynamism has attracted increasing policy and scholarly attention, yet there is no systematic attempt to look at it from a youth angle. This has resulted in lack of an adequate understanding of the potential benefits of youth entrepreneurship (YE). Through grounded research and in-depth analysis, the aim of this chapter is to stimulate policy debate, portray the outlook and understand the obstacle for youth entrepreneurship in India. Attempt is also made to suggest strategies that can be initiated for enhancing youth entrepreneurship.

About the Contributors
About the Contributors

Zeyar Myo Aung has a Masters Degree holder in Business Administrations specializing in the field of Human Resources Management. Key interests focus upon international tourism, human resources development, establishment of sound organizational culture for the organizations. Experienced in preparing complex multi-disciplined yet visionary strategies, reports and proposals; policy and strategic planning; product development; developing and managing work programmes, budgets and accounts; supporting and coordinating the participation and interests of different stakeholders; conceiving projects; networking; team building; working in multi-cultural teams; undertaking field and contextual research; presenting oral and written progress reports; teaching, lecturing, coaching, advising and mentoring. Having worked in a development context for more than thirteen years, Aung has a detailed and insightful understanding of the tourism industry. He is also well aware of principles and procedures of human resources development as he has been fully utilizing his knowledge gained from his MBA course into his workplace. He also has a solid network of professionals from the public and private sectors both in and outside of the country.

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Chapter 12
What Matters Most: Performance Attribute Selection in the Design Project Delivery Process

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ABSTRACT
This chapter aims to identify the level of importance of the performance attributes of architects in the project delivery process by using self-evaluation. Good performance is the only insurance that can help construction professionals, such as architects, to survive in the industry. Performance problems during the design process that are experienced by these professionals are the reasons for the drawbacks and deficiencies in construction. The present study proposes 37 performance attributes. The results revealed that understanding the client’s objectives is the performance attribute with the highest relative importance index value. The present study recommends for future research on improving the performance assessment in design practice and providing behavior-based feedback to increase feedback accuracy for measuring the performance of architects in the design delivery process needed by the employers in the construction industry.

INTRODUCTION
Developing countries in Asia have huge numbers of infrastructure and physical development projects that have resulted in the rapid expansion of firms in these countries. Measuring the performance is important in the management agenda of the construction industry due to the changing nature of work, ever-changing demands, increasing competition, information technology, etc. The highly competitive construction industry calls for the professionals in this field to constantly improve their performance in order to survive in the industry. The performance of the professionals in construction industry is usually measured based on time, cost, and quality (Chan & Kumaraswamy, 1996; Khang & Myint, 1999;
Kazaz et al., 2005; Ahsan & Gunawan, 2010). These attributes are usually applicable for measuring the performance of a product that has already completed (final product) and they seemed to be applicable for measuring every professional in the industry despite the differences of the duties of those professionals in the process of delivering a project. Zuo et al. (2009) argue that architect performance is best measured during the design project delivery process rather than in the completion of the project. Measuring architect performance during the process of delivering the project will benefit both the employers and the architects because the measurement can then be used as a guidance in the modification and the evaluation of the building form. Thus, architects who seek to increase their performance and gain more competitive advantage should shift their mind on just having the abilities to fulfill the work in under a certain amount of cost, on time, and with the expected quality. They should give optimal performance that goes beyond time, cost, and quality performance. Therefore, this chapter attempts to identify important attributes for measuring architect performance based on their duties in the design project delivery process and examine their level of importance in order to identify which attributes need to be highlighted to ensure higher performance achieved.

BACKGROUND

Problems that occur during the design process can influence the construction process and can be the reason for reworks and defects. Therefore, the design process should be conducted in the best possible way to obtain the success of the project and to ensure that rework and defects during the construction are minimized. Thus, architects as design professionals should deliver their best in providing design solutions for the project. Most previous studies which are based on developed countries perspective, acknowledged the importance of assessing the performance attributes of architects from the perspectives of clients (Oyedele & Tham, 2005; Oyedele & Tham, 2007; Segal, 2006). Unfortunately, in most Asia countries, specifically in Indonesia, clients are not truly involved in every stage of the process of the project, and some clients do not possess sufficient knowledge on construction and on understanding architectural drawings (Marisa et al., 2014). Therefore, in the context of Indonesia, assessing architect’s performance from clients perspective will not give a reliable result. This arises the need to identify the most important performance attribute for measuring architect performance from the perspective of architects themselves. The present study aims to fill this existing gap by identifying the most important performance attribute by using the architect’s rating.

Obtaining the architect’s perspectives is very critical in order to know exactly what performance attribute is the most important for measuring their performance in the project delivery process. Architects are capable of assessing the most important attribute for their performance because they are the ones who perform the duties, know exactly how they should perform, and know whether or not they exhibit correct behavior during the design project delivery process. Some more, individuals tend to focus more and work harder towards achieving certain performance attributes that they feel are important and relevant for their competitive advantage rather than relying on the performance attributes decided by others.

This type of performance evaluation is called self-evaluation, in which the individuals themselves assess their own their work (Martin, 2010; Palaniappan, 1998). Studies have acknowledged that self-evaluation results in positive outcomes towards individuals. They are more satisfied and motivated in their work, and their work performance improved. Moreover, employees can develop themselves as self-evaluation provides behavior-based and accurate feedback of the performance assessment that employers
in the construction industry need (Martin, 2010; Palaniappan, 1998; Roch et al., 2011; Ryan & Tipu, 2009). Therefore, this study employs self-evaluation where architects themselves rate and rank the relative importance of performance attributes in the design project delivery process. This study will benefit architects in developing countries in Asia especially in Indonesia as it gives important feedback on which performance attribute that should be given more attention if they want to succeed in the industry. This study provides important feedback for people on top management level (employers) of the firms on what kind of attributes that need to be measured from their architects so that they can manage and identify how well their architects’ performance in conducting the projects. The 37 performance attributes presented in this chapter provides a useful source for other researchers in the industry for measuring the extent of architect performance as well as for identifying the most important attributes of architect performance either from the clients’ perspectives or architects’ perspectives in different countries.

ARCHITECT’S PERFORMANCE ATTRIBUTES

The performance of construction professionals is based on their abilities to complete the project according to the schedule, budget (cost), and delivery of the expected quality (Adenfelt, 2010; Meng & Gallagher, 2012). Oyedele and Tham (2007) introduced 28 performance attributes for measuring architect performance. However, no agreement has been reached on the number of attributes required in measuring the performance of architects in the design project delivery process (Oyedele & Tham, 2005). This present study adds nine performance attributes in relation with architect’s duties in the design project delivery process. The new items increase the number of performance attributes to 37. The next paragraphs elaborate the 37 Performance Attributes (PA) in the design project delivery process proposed in this study.

• Understand the client’s objectives (PA1). The client or the owner is defined as the recipient of the results of the project (Soeharto, 2001). Therefore, architects should understand and work towards the objectives of the client. According to Segal (2006), a satisfied client is the number one marketing tool for architects. Thus, meeting the objectives of clients is vital for competitive advantage and survival in the construction industry.

• Forethought and consideration of user’s requirements (PA2). In producing design, architects should consider the user’s requirements because the users are the ones who will occupy the building, and thus, will be directly affected by the architect’s works. Chappell and Willis (2005) indicated that the architect’s works should translate and combine the needs of their users with the design. Therefore, a good and successful design is produced when the architect’s work fulfills the needs and requirements of the end users.

• Identify and prioritize project objectives (PA3). Davies (2002) has underlined the importance of working together with the “customer” in a project to ensure the accomplishment of project goals. Davies (2002) argues that the success of a project requires identifying what the project stakeholders hope to achieve from the project. Performance should be measured in relation to the ability of the architects to deliver the project based on the client’s objectives. Sometimes, meeting all the objectives of the client is not easy, particularly in projects with high complexity. However, architects should still be aware that meeting the clients’ objectives is critical. Some projects may meet the time schedule, but exceed the minimum budget and have poor quality (Lam et al., 2007).
Therefore, architects should work closely with their clients to know which project objective is the priority.

- **Analyzing the design concepts and requirements (PA4).** One of the duties of architects in the design process is the analysis of the design concepts and requirements for the project. Different functions of buildings require different concepts of designs and have different requirements. Therefore, architects should be able to analyze several possible concepts of designs to provide the best solutions needed for the final design. This process establishes a thorough and complete building design that meets all the requirements of a good building.

- **The project is designed within budget (PA5).** The project designed by the architect is bound by the budget that the client provided. The architect has the duty of operating the job efficiently (Green, 2001). Meeting the actual cost is one of indicators for a successful project (Adenfelt, 2010; Meng & Gallagher, 2012; Segal, 2006), and is one of the service components that architects should be able to do to be successful in the industry. Therefore, designing the project with considerations on meeting the budget is important. Architects have absolutely no reason to design beyond the project cost, even for innovation, aesthetics, or the intention of producing a beautiful and thoughtful design.

- **Complete the design on time (PA6).** Completing the project within the time scheduled is one of the indicators of the project’s success (Adenfelt, 2010; Meng & Gallagher, 2012). Success is assessed in terms of the architect’s reliability of meeting the project schedule. Reliability is one of the components of the architect’s service, which means that architects should be able to finish the project on time (Segal, 2006). When the work is finished behind schedule, a wonderful and creative design produced by the architect is still pointless. The clients are less satisfied and may not hire them anymore.

- **Conform the design to the clients’ requirements (PA7).** The architect needs to conform to the design required by the client. Architects should apply their knowledge based on the projects that are given to them, otherwise they may not be able to practice at all if no client uses their services. Thus, architects should be able to identify the needs and the requirements of their clients, and then transform these needs and ideas into designs that suit clients. Architectural firms would have better competitive advantage if architects have better understanding on the needs and requirements of their clients (Oyedele & Tham, 2005). Therefore, conforming the design to the client’s requirements will satisfy the client and will bring benefits for architect in the future.

- **Completion and simplification of design (PA8).** A building design should facilitate ease in the construction and meet all the requirements of building completion (Ying & Pheng, 2007). Completion and simplification of the design are ways of achieving the buildability of the design (Oyedele & Tham, 2005).

- **Standardization of elements (PA9).** Architects should give more attention to the design elements created in the design process. Starting from the conceptual planning stage, all design elements should be standardized and well coordinated for a design to be built. Designing for standardization is part of enhancing the buildability for any given project (Lam et al., 2005).

- **Dimensional coordination of elements (PA10).** Dimension can be defined as the size, the measurement of length, width, and height of the elements within the architect’s design. Faulty designs often happen because the dimensional elements within the architect’s design are not coordinated with each other. The common design errors in construction are the size of reinforcement bars, too small columns, and inappropriate foundation size (Ahzahar et al., 2011).
What Matters Most

- **Flexibility in design for changes (PA11).** Architects in the project delivery process often make changes to their design because of various reasons, such as the additional needs and changes of the clients. Architects should advise the clients that any changes made would be costly in terms of time and money (Chappell & Willis, 2005). Nevertheless, changes are somehow unavoidable and often happen in any design project. Therefore, architects need to have solutions regarding this problem.

- **Possessing knowledge on performance characteristics of materials and components (PA12).** Architects need to know the materials that they need to achieve a good design, whether for aesthetic purposes or for functionality. Ahzahar et al. (2011) state that improper selection of construction materials may result in building defects.

- **Effective constructability review of design (PA13).** Performing effective constructability design reviews should be part of the activities of an architect to ensure better project performance. Wong et al. (2007) suggest that the success of the project depends on the constructability of the final design itself. Reviewing the design ensures the achievement of project goals and the building performance is at the maximum level.

- **Effective site observations and inspections (PA14).** Although clients generally ask the architects to supervise the project, architects actually do not have the right to conduct supervision because the word “supervision” has a legal meaning that denotes responsibilities under many state laws (Chappell, 1995; Segal, 2006). However, one of the architect’s obligations is to make periodic site observations and inspections on behalf of the clients during the substantial and final completion time.

- **Aesthetics and quality design (PA15).** Design quality has been recognized to have a connection with various aspects of performance (Cardellino et al., 2009). According to Segal (2006), architects should maintain the aesthetics and quality of design because their work is commonly judged by the look of their design (Segal, 2006).

- **Consistent and high quality specification (PA16).** High quality specification should be produced during the design project delivery process (Oyedele & Tham, 2005). According to Simpson (2010), project cost can be reduced and shorter time of project cycle can be obtained when a thorough and high functional design specification is identified during the early stages of the project. Therefore, in producing a detailed design, architects should ensure that thorough, clear, and consistent specifications with high quality are agreed upon by all professionals involved in the project. The unanimous agreement prevents delays and reworks.

- **Assistance in producing quality management strategies (PA17).** All people involved in the project, including the architect, should work together in managing and delivering high quality product to compete in the industry and to satisfy the consumers (Manzini et al, 2010; Tonchia, 2008). Thus, architects should provide assistance in identifying what priorities or strategies should be applied in managing the project quality and bringing satisfaction to the clients and users.

- **Assistance in production of quality manuals (PA18).** Quality manuals serve as a document that records the quality practices and policies of firms to increase customer satisfaction (Lo et al., 2001). Therefore, to ensure the quality of work, architects should assist in producing the quality manuals (Oyedele & Tham, 2005). In the production of quality manuals, architects should help identify the outputs of each activity in the project, the controls, mechanism, and the flow of activities, among others.
• **No rework or deficiency in design (PA19).** Rework is sometimes unavoidable and may happen because of late changes made on the site and because of design errors. Love et al. (2012) argue that accidents can happen because of design errors. Therefore, architects should be aware by giving proper attention to all the requirements and details in the process of producing design. In doing so, errors could be minimized and eliminated to prevent reworking and deficiencies in the project.

• **Design conformance to codes and standard (PA20).** Standard can be defined as technical specifications, such as dimensional, performance, and safety, among others, which have been approved by recognized standardization bodies, such as ISO, European Standard, and National Standard (Manzini et al., 2010). Therefore, designs should conform to the codes and standards to provide a guaranteed quality of the final design outcomes for the clients and users.

• **Assistance in the production of construction inspection and testing program (PA21).** The contractor needs to perform several testing procedures and conduct additional tests during construction (Jaeger and Hok 2010). Inspecting and testing the program are conducted to provide evidence that the components and the construction of the project are done accordingly with the contract requirements (Bubshait & Al-Atiq, 1999). Therefore, architects should provide assistance in the production of testing programs and in the inspection of construction processes to maintain the high quality of the project, and to ensure tests are conducted for works that require particular tests.

• **Effective pre-design project meetings (PA22).** In managing a project, pre-design project meetings should be conducted carefully by architects. Based on Johannes (1992), architects should be able to manage project procedures, identify situation, obtain information, and plan or ascertain the materials to be used to produce pre-design project results. Thus, in effective pre-design project meetings, all design problems, design requirements, approvals, and other information regarding the project, need to be well defined such that architects and the design team members will be able to produce the appropriate design and to meet the needs and requirements of the client.

• **Assistance in defining project strategy (PA23).** Poor management in formulating strategies can result in poor performance (Anderson & Merna, 2003). Further, Yang (2011) states that a poor project strategy may lead to the failure of the project because the deficiencies in selecting and managing the project may limit the ability to realize strategic objectives for the project (Young et al., 2012). Therefore, architects need to possess good abilities and skills in managing the project to provide assistance in formulating the strategies that best suit the project. Architects should not work alone, especially in a project with high complexity. They need to involve other professionals during the design stage.

• **Involvement of other professionals during the design stage (PA24).** Korkmaz et al. (2013) suggest that team collaboration consisting of people from different disciplines can optimize the design project. Thus, architects should not work alone, particularly in a project with high complexity. Architects need to involve other professionals during the design stage to achieve a fully integrated building design from aesthetic or visual view that also functions properly for the users.

• **Coordination among design phases (PA25).** Coordination among phases in the design process has an important role in ensuring the production of quality design (Hegazy et al., 1998). Architects should coordinate with people involved in the design process, activities, and results or outcomes in each design phase. Thus, effective coordination among design phases will ensure the smooth operation of the project. Early identification of mismatches or problems can result in early corrections and ensure high-quality design project.
What Matters Most

- **Coordination between design and construction (PA26).** Trigunarsyah (2004) suggests coordination between the design and construction phases. Involving the contractor as early as possible in the project’s life cycle, such as in the conceptual stage and in the design procurement stage, would help achieve better performance for the project. Thus, lack of coordination between design and construction affects the project’s performance. Architects and contractors need to work together to ensure good coordination between design and construction.

- **Effective project review meetings (PA27).** Conducting effective project review meetings is part of the management skills that architects should possess (Oyedele & Tham, 2005). Regular effective project review meetings are important because stakeholders in the project can identify problems in the project delivery process as early as possible. They can propose the best solutions to overcome the problems, to receive project updates and progress, and to plan the important strategies for the next process.

- **Organize people and work activities (PA28).** Organizing people and work activities is one of the management skills that architects should possess to come up with a smooth project delivery process. During the delivery process, participants work together in many activities involved in the project. Thus, organizing work activities and managing people would guarantee the timely completion of the project, maintain the project cost, ensure safety, and result in the success of the project.

- **Provide advice on contract provisions (PA29).** Chappell (1995) emphasized that architects should be able to provide advice for the client in terms of contract provisions. During the tender action and mobilization, one of the duties of the architect is to advice clients on contractual matters such that clients can obtain a good reasonable price for construction work (Chappell & Willis, 2005).

- **Certainty in communicating with others in the project (PA30).** Certainty refers to something that has no doubts or something that is certain or true, and thus, architects should ensure that any communication drawn, spoken, or written is far from misinterpretation (Chappell & Willis, 2005). Therefore, architects should communicate with other participants in the project with certainty for both the architect and the recipient, such as contractors, have the same interpretation.

- **Brevity in design communication (PA31).** Architects should be brief in communicating their ideas verbally or in drawings to prevent misunderstanding or difficulties in reading the drawings (Chappell and Willis 2005). According to Chappell and Willis (2005), brevity in a written document involves writing the message clearly as well as editing, rearranging, and rewriting the document.

- **Comprehensiveness in communicating design with others (PA32).** Comprehensiveness in communication deals with everything that is needed to help the recipient know what is required for the project. Therefore, architects should provide all the required information as if the recipients know only little (Chappell & Willis, 2005).

- **Clarity in design communication (PA33).** Clarity in communication refers to the ability to think about and to understand clearly what is communicated (Chappell & Willis, 2005). Thus, architects should be able to prepare the drawings, reports, specifications, and other information in ways that clients can easily understand.

- **Communicate effectively with the clients (PA34).** Fay (2011) suggests that communication serves connects individuals in meaningful relationships and with the individual outcomes. Thus, architects should be able to communicate designs and ideas effectively to all project stakeholders, such as clients, engineers, contractors, or even the users or community. Architects should be able to
ensure that participants completely understand the given information to prevent any misconceptions that can lead to deficiencies and errors on the intended design.

- **Communicate ideas effectively into drawings (PA35).** Segal (2006) suggests that architects should be able to communicate verbally and graphically to the clients to achieve the goal in their designs. Thus, in the application of their professional skills, architects’ ideas should be well communicated in their drawings.

- **Communicate design clearly to the contractor (PA36).** Although the architect’s plans are not always the best examples of communication documents, architects should be able to convey the message to the builders on exactly what to do and what are needed (Chappell & Willis, 2005).

- **Communicate effectively with other professionals during design stage (PA37).** The need for adequate communication among all stakeholders in the project is considered as one of the important components that determine the success of the project (Soeharto, 2001). Most of the problems that occur in construction processes come from poor communication and misunderstanding among the project’s participants (Oyedele & Tham, 2007).

The above 37 Performance Attributes (PA) proposed in this chapter then were examined in order to identify the most important attributes for measuring architects’ performance in the design project delivery process.

**METHODOLOGY AND ANALYSIS**

The present study used a quantitative method. A survey was conducted to gather information from the respondents by using questionnaires. Based on Taylor et al. (2011), the survey is a method that spreads the research extensively and provides the researcher the generalization of the subjects. Registered architects at the Indonesian Institute of Architect (IAI) were chosen as the participants for the study. IAI is a long-standing organization established in 1959 and embodies the ideals of professional architects in Indonesia. This organization is active in local and international activities through because of its membership with the Construction Service Development Board (LPJK), Architects Regional Council of ASIA (ARCASIA), and Union Internationale de Architectes (UIA). After contacting 200 registered architects at IAI via the telephone and through the secretariat, 114 respondents showed their willingness to participate in the present study. From the 114 questionnaires received from the respondents, 4 were unusable because of improper responses. Therefore, 110 questionnaires were considered and were analyzed. The data analysis and data presentation used frequency and descriptive statistics, which were derived with the aid of SPSS software version 20.0.

The questionnaire had three sections. The first section aimed to gather information on the background of the respondents. The second section aimed to identify the importance of architect’s performance attributes. This section consisted of 37 questions to be answered by using Likert’s scale in ascending order (1-not important to 5-extremely important), and was adopted from Oyedele and Tham (2005). The third section aims to obtain the comments of respondents on the performance attributes of architects.

The research instrument was tested by using reliability analysis. Based on Priyatno (2012), Cronbach’s alpha coefficient of less than 0.6 is not good, 0.6–0.7 is acceptable, above 0.7 is good, and 0.8 is preferable. A good Cronbach’s alpha coefficient shows good internal consistency, which indicates the homogeneity of items that forms the construct and shows an acceptable measure of the questionnaire’s
reliability (Jarkas, 2013; Sekaran, 2006). Cronbach’s alpha coefficient was 0.955. Thus, all performance attributes (questions) showed good and reliable value for measuring architect’s performance in the project delivery process. The collected data were analyzed by using the Relative Importance Index (RII) formula as shown in the equation (Jarkas, 2013).

\[
RII(\%) = \frac{5(n_5) + 4(n_4) + 3(n_3) + 2(n_2) + n_1}{5(n_1 + n_2 + n_3 + n_4 + n_5)} \times 100
\]

RII was employed to analyze and rank the relative importance of performance attributes in measuring architect’s performance in the project delivery process. The formula above indicates \( n_1 \) is the number of respondents who chose 1 (not important), \( n_2 \) is the number of respondents who chose 2 (less important), \( n_3 \) is the number of respondents who chose 3 (moderately important), \( n_4 \) is the number of respondents who chose 4 (important), and \( n_5 \) is the number of respondents who chose 5 (extremely important).

The respondents were asked to rate the relative importance of 37 attributes for measuring the architect’s performance in the project delivery process. Table 1 presents the RII values for all 37 performance attributes presented in the present study.

RESULTS AND DISCUSSION

The 110 survey respondents (registered architects at IAI), are mostly between 36 to 45 years old, and 98 have a bachelor’s degree (89.1%), 11 have a master’s degree (10%), and 1 has a PhD (0.9%). Most of the respondents worked in the industry for 5 to 15 years (68.2%), had between two to three projects in a year (55.5%), and completed around 20 to 40 projects (82.7%). Majority of the respondents worked in private firms (96.4%). Most of the firms where the respondents work for had been established from 11 to 15 years (52.7%), while some have been in the construction industry for more than 20 years (9.1%). Thus, the characteristics showed that the respondents were qualified to answer the research questions because potential respondents should have proper experience, proper education in the construction process, and clear ideas regarding the problems encountered in the construction industry (Butcher and Sheehan 2010).

Table 1 presents the three most important performance attributes for measuring architect’s performance. These attributes are understand the clients’ objectives (PA1), consideration and forethought of user requirements (PA2), and communicate effectively with the clients (PA34). The results suggested that registered architects in Indonesia regarded understanding the clients’ objectives as the most important attribute for measuring the performance of architects, which indicates the critical importance of achieving the client’s objectives in the project for architects. According to Oyedele and Tham (2007), the competitive advantage of architectural firms would be better if architects within the firms have better understanding of their clients’ objectives. Thus, the clients are important people and that their objectives need to be understood well because their satisfaction is the key for success and getting the next project.

Based on Oyedele and Tham (2005), who used clients as their respondents in their study, consideration and forethought of user requirements comprise one of the most important performance attributes perceived by clients in the private sector. The architects in the present study perceived this attribute as the second most important attribute for measuring architect’s performance. Users could also be the clients of the...
Table 1. Relative importance index values of architect’s performance attributes in the project delivery process

<table>
<thead>
<tr>
<th>Architect’s Performance Attributes</th>
<th>Relative Importance Index (RII) Values</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA1 Understand the clients’ objectives</td>
<td>90.91</td>
<td>1</td>
</tr>
<tr>
<td>PA2 Consideration and forethought of user requirements</td>
<td>90.00</td>
<td>2</td>
</tr>
<tr>
<td>PA34 Communicate effectively with the clients</td>
<td>89.82</td>
<td>3</td>
</tr>
<tr>
<td>PA15 Aesthetics and quality design</td>
<td>89.27</td>
<td>4</td>
</tr>
<tr>
<td>PA35 Communicate ideas effectively into drawings</td>
<td>89.27</td>
<td>4</td>
</tr>
<tr>
<td>PA4 Analyze the design concepts and requirements</td>
<td>89.09</td>
<td>5</td>
</tr>
<tr>
<td>PA5 The project is designed within budget</td>
<td>88.54</td>
<td>6</td>
</tr>
<tr>
<td>PA6 Complete the design on time</td>
<td>87.82</td>
<td>7</td>
</tr>
<tr>
<td>PA36 Communicate design clearly to the contractor</td>
<td>87.82</td>
<td>7</td>
</tr>
<tr>
<td>PA33 Clarity in design communication</td>
<td>87.82</td>
<td>7</td>
</tr>
<tr>
<td>PA32 Comprehensiveness in communicating design with others</td>
<td>87.64</td>
<td>8</td>
</tr>
<tr>
<td>PA16 Consistent and high quality specification</td>
<td>87.45</td>
<td>9</td>
</tr>
<tr>
<td>PA3 Identify and prioritize project objectives</td>
<td>87.27</td>
<td>10</td>
</tr>
<tr>
<td>PA37 Communicate effectively with other professionals during design stage</td>
<td>87.09</td>
<td>11</td>
</tr>
<tr>
<td>PA30 Certainty in communicating with others in the project</td>
<td>87.09</td>
<td>11</td>
</tr>
<tr>
<td>PA7 Conform design to the client’s requirements</td>
<td>86.54</td>
<td>12</td>
</tr>
<tr>
<td>PA21 Assistance in the production of construction inspection and testing program</td>
<td>85.81</td>
<td>13</td>
</tr>
<tr>
<td>PA17 Assistance in producing quality management strategies</td>
<td>85.64</td>
<td>14</td>
</tr>
<tr>
<td>PA27 Effective project review meetings</td>
<td>85.64</td>
<td>14</td>
</tr>
<tr>
<td>PA24 Involvement of other professionals during design stage</td>
<td>85.45</td>
<td>15</td>
</tr>
<tr>
<td>PA26 Coordination between design and construction</td>
<td>85.27</td>
<td>16</td>
</tr>
<tr>
<td>PA13 Effective constructability review of design</td>
<td>85.09</td>
<td>17</td>
</tr>
<tr>
<td>PA14 Effective site observations and inspections</td>
<td>84.91</td>
<td>18</td>
</tr>
<tr>
<td>PA28 Organize people and work activities</td>
<td>84.91</td>
<td>18</td>
</tr>
<tr>
<td>PA20 Design conformance to codes and standards</td>
<td>84.73</td>
<td>19</td>
</tr>
<tr>
<td>PA31 Brevity in design communication</td>
<td>84.73</td>
<td>19</td>
</tr>
<tr>
<td>PA11 Flexibility in design for changes</td>
<td>84.72</td>
<td>20</td>
</tr>
<tr>
<td>PA22 Effective pre-design project meetings</td>
<td>84.54</td>
<td>21</td>
</tr>
<tr>
<td>PA29 Provide advice on contract provisions</td>
<td>84.18</td>
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</tr>
<tr>
<td>PA23 Assistance in defining project strategy</td>
<td>84.00</td>
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</tr>
<tr>
<td>PA25 Coordination among design phases</td>
<td>83.63</td>
<td>24</td>
</tr>
<tr>
<td>PA10 Dimensional coordination of elements</td>
<td>83.09</td>
<td>25</td>
</tr>
<tr>
<td>PA12 Possessing knowledge on performance characteristics of materials and components</td>
<td>83.09</td>
<td>25</td>
</tr>
<tr>
<td>PA18 Assistance in production of quality manuals</td>
<td>82.18</td>
<td>26</td>
</tr>
<tr>
<td>PA8 Completion and simplification of design</td>
<td>81.81</td>
<td>27</td>
</tr>
<tr>
<td>PA19 No rework and deficiency in design</td>
<td>81.09</td>
<td>28</td>
</tr>
<tr>
<td>PA9 Standardization of elements</td>
<td>80.18</td>
<td>29</td>
</tr>
</tbody>
</table>
architects. Therefore, consideration of the users’ requirements is important for the architect’s competitive advantage in the industry because users will be affected directly with the architect’s works. Davies (2002) suggests to identify what the project stakeholders hope to achieve from the project. Thus, identifying the users’ hope by fulfilling their needs and requirements for the project is necessary. Effective communication with clients is an important way to ensure that architects understand their objectives, needs, or requirements for the project because communication is a two way process and is about exchanging information. Therefore, architects should be able to communicate their ideas effectively whether in the form of design drawings or verbal communication. Everything about the project should be well understood by the clients. Communicating effectively with the clients is one of the nine current attributes that were added by the present study. Results suggested that architects perceived effective communication with clients as one of the three most important performance attributes in the design project delivery process.

By contrast, three performance attributes with the lowest RII values chosen by the respondents were completion and simplification of design (PA8), no rework and deficiency in design (PA19), and standardization of elements (PA9). Based on Ying and Pheng (2007), a building design should provide all the requirements for a completed building and facilitate ease in the construction. Therefore, the design that architects produce should be completed and simplified for ease, and ensure the completion of the building for the clients. Standardization of elements in design ensures that a good design can be well constructed. One can only imagine what would happen if the beam size is too large than the column that supports the beam or if the room that is expected to accommodate many people is too narrow. Thus, all design elements should be standardized because standardization ensures the buildability of the design (Oyedele & Tham, 2005). However, based on the results of the study, architects did not perceive these attributes as important as others, although these two attributes related with the buildability of design. One possible reason is that the clients themselves did not perceive design buildability as an important indicator for measuring architect’s performance. Thus, architects felt that these attributes were of the least importance for their performance. Oyedele and Tham (2005) found that clients were less concerned about design buildability, and were more concerned of the project cost and user satisfaction. Other possible reasons were insufficient knowledge of the client on the advantages of design buildability (Marisa et al., 2014), and the existence of a separation between design and construction that leaves the methods and means of construction to contractors (Trigunarsyah, 2004).

Delivering high quality design is important for architects because quality is one of the indicators of a successful project. Thus, producing good quality designs is important in any construction project (Ping et al., 2011). Delivering with no rework and deficiency in design should be one priority of the architects because reworks and deficiencies in the design have negative effects on the project, such as quality defects, delays, and cost overruns (Sun & Meng, 2009). Therefore, architects should put more attention on this performance attribute. Sometimes, reworking or deficiency in design is unavoidable. Hence, architects should put more efforts in minimizing or eliminating deficiencies in the design to prevent changes and reworks.

Nonetheless, according to Hassanain et al. (2012), the RII value that ranges between 80 and 100 indicates that an attribute is within the range of “very important.” Thus, the RII values of all performance attributes suggested that the 37 performance attributes were perceived by architects as very important in measuring their performance in the design project delivery process because the weighted importance of these attributes ranged from 80.18 to 90.91.
SOLUTIONS AND RECOMMENDATIONS

The results revealed that architects consider that clients and users as the most important people whose satisfaction needs to be fulfilled, if they want to achieve high work performance. This finding is indicated by the three most important attributes that were chosen for measuring architect performance in design project delivery process. The attributes mostly relate to fulfilling the objectives and requirements of clients and users. Thus, without clients, architects will not have any project to apply their knowledge and expertise. Therefore, architects should realize that understanding the clients’ needs is of crucial importance in order to achieve optimum performance in the design project delivery process.

The present study suggests that registered architects in Indonesia need to give more attention on performance attributes that relate with the easiness in the construction process, such as completion and simplification of the design and standardization of elements. Architects should be concerned more on delivering a “no rework and no deficiency” design and place more effort in minimizing or eliminating deficiencies in the design. Based on the results, several performance attributes ranked higher than having no rework and deficiency in design, which implies that architects do not regard this attribute as important for their performance. A design with many deficiencies and requires several reworks means that the architect’s design is considered as a failure in terms of its performance.

The results verify the findings of Oyedele and Tham (2005) in different country. Their findings suggest performance attributes that relate to design buildability, such as simplification of the design and standardization of elements are perceived as the least important indicators for measuring architect’s performance in the design project delivery process, and as a result, architects in their study have the lowest performance on these attributes. However, architects should understand well that their design need to be well constructed. Thus, architects should pay more attention to design buildability performance if they want to ensure successful project achieved. Architects should add more knowledge on the buildability and constructability of design in order to understand well on the advantages that they may get by giving more attention to the easiness of construction into their design in the early stage of design process.

People in the middle and top management level of consultant firms should also show support by providing necessary training to enhance the awareness of their architects on the advantages of design buildability, this will help to improve the firms’ performance to ensure higher performance and successful project are achieved. Clients should also pay more attention to design buildability, that way architects will also put more consideration on maintaining design that has no deficiency, all design elements are standardized, and that design is completed and simplified in order to provide the easiness of construction.

FUTURE RESEARCH DIRECTIONS

This chapter adds 9 important performance attributes to the previous 28 attributes, which have RII values ranging from 84.18 to 89.82. The current performance attributes added in this study ranked number 3 (PA34), 4 (PA35), 7 (PA33 and PA36), 8 (PA32), 11 (PA30 and PA37), 19 (PA31), and 22 (PA29). Hence, architects perceived that the nine performance attributes introduced in the study are important attributes for performance, and can be used in future studies for measuring architect’s performance in the design project delivery process. Future studies should include these nine performance attributes to assess the extent of architect performance in the design project delivery process in order to obtain a more holistic performance assessment. Therefore, there are 37 attributes that can be used for measuring
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architect performance in the project delivery process. Thus, these 37 performance attributes presented in this chapter can be used in future research for measuring the extent of architect performance in the project delivery process.

For future research, the assessment of architect performance itself should not only depend on the clients’ perspectives as mostly implemented in previous studies or only depend on architects’ own perspectives. Thus, in order to achieve a more thorough performance assessment it should comprise of both clients’ perspectives and architects’ perspectives as well as other professionals that work together closely in the project delivery process with architects. This is suggested so because most of clients mainly assess the architects’ performance based on the final products and do not really involve in the whole process of producing design from the beginning until the final outcome. Thus, by having all of them together in assessing architect performance should benefit future study as it improves performance assessment as well as provides stronger feedback in conceptualizing and defining the most important attributes for measuring the extent of architect performance in the design project delivery process.

CONCLUSION

In summary, this chapter proposes 37 (thirty seven) performance attributes for measuring architect performance in the design project delivery process. This chapter investigates the most important performance attribute by using self-evaluation where architects themselves rate and rank the relative importance of performance attributes in the design project delivery process. The performance attributes presented in this chapter are closely related to the duties and responsibilities of the architects in the design project delivery process, therefore, the individuals (architects) themselves are the one who know exactly which attributes that is the most important for their performance in the design project delivery process. Three most important attributes selected are understand the clients’ objectives (PA1), consideration and forethought of user requirements (PA2), and communicate effectively with the clients (PA34). The results suggest that maintaining good performance in the design project delivery process by meeting the objectives and requirements of the clients and users is the best way for architects to achieve success. Therefore, architects in developing countries in Asia especially in Indonesia should not only deliver good performance in terms of meeting a certain amount of cost, on time, and the expected quality, they should also pay more attention to satisfy their clients’ and users’ by meeting their needs and requirements in the project. Thus, ensuring clients’ and users’ satisfaction is a good way for the architects to market their services in the industry. The top management of the consultant firms should also realize that they should maintain good relationship with their clients by managing and ensuring their architects to deliver their best in the project to meet the clients’ and users’ objectives.

In contrast, three performance attributes such as completion and simplification of design (PA8), no rework and deficiency in design (PA19), and standardization of elements (PA9) have the lowest RII values. The results in present study show that architects in Indonesia perceived that meeting the clients’ requirements and needs is far more important to their performance than having no deficiency and considering design buildability in their design. Even so, architects should know best that their design will eventually be constructed, therefore, separating design with construction is not a wise thing to do. In fact, the separation between design and construction will result in having major problems such as rework and delays during the execution of the project on the construction site. This condition will have negative impact on the overall architect performance. Thus, architects should not neglect performance attributes
that relate with design buildability and should ensure that no rework and deficiency exist in their design. Architects as design professionals should add more knowledge on the benefits of considering design buildability attributes in the early stage of their design to obtain a good integration between design and construction as well as ensuring the easiness of construction in order to minimize errors, avoid rework and delays. The findings in the study also benefit people on top management level of the consultant firms in Indonesia to identify which performance attributes as the least important perceived by their architects. This will help them to formulate any necessary improvement made in the firms to enhance the awareness of their architects on the importance of integrating design with construction in. Clients in developing countries such as Indonesia that seek for success and gain competitive advantages from the performance of architects can also help by educating themselves on the importance of implementing these attributes in the early stage of the projects. When clients that perceived as the most important people for architect pay more attention to design buildability, architects will then put more consideration on this matter as well.

Nonetheless, this chapter has demonstrated that there are other very important attributes that goes beyond time, cost, and quality suitable for measuring architect performance which are closely related to the architect’s duties in the project delivery process. Shown by the weighted importance of these 37 performance attributes that ranged from 80.18 to 90.91. Implying that the performance attributes presented in this chapter can be applied for measuring the extent of architects’ performance in developing countries in Asia in general and Indonesia specifically.

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**KEY TERMS AND DEFINITIONS**

**Architect**: Design professional in the construction industry who provides work such as planning, designing, organizing, producing drawings and providing advice by translating ideas into designs as well as meeting the clients’ and the project objectives.

**Consultant Firm**: An organization or a company that provides professional design service for their clients.

**Performance**: The execution of work in accordance with its responsibilities to achieve results that are in line with the expected.

**Performance Attributes**: Several items or indicators that are used for measuring how well the execution of work is done.

**Project Delivery Process**: The sequential processes to deliver the project to the clients which consist of the management process, alignment of interests, and the timing collaboration between all of participants from different disciplines involved in the project.

**Relative Importance Index**: A formula that is used to identify and rank the collected data on performance indicators based on the collective perceptions of the respondents.