Project Management Roles and Task for Interior Designer During Design Phase

Nur Maizura Ahmad Noorhani[1], Arniatul Aiza Mustapha[1]*, Hamimah Adnan[2]

[1]Centre of Studies for Interior Architecture, Faculty of Architecture, Planning and Surveying,
 Universiti Teknologi MARA Selangor, Campus Puncak Alam, 42300 Bandar Puncak Alam, Selangor, Malaysia

[2]Centre of Studies for Quantity Surveying, Faculty of Architecture, Planning and Surveying,
 Universiti Teknologi MARA Shah Alam, 40450 Shah Alam, Selangor, Malaysia

*Corresponding Author

Abstract: The interior design process begins with identifying and solving a problem. Good interior design solutions have the power to positively influence people. The process to turn an empty interior into a functionally effective and aesthetically pleasing environment requires a few tasks. The continued misunderstanding of these respective disciplines enables the general public to assume that anyone who creates and furnishes a space with finishes and artworks without a clear understanding of the structural drawings and schematics of that particular space is an interior designer. It is important to ensure that the roles and tasks of an interior designer are not equated to interior decorators and/or interior architects. The aim of the analysis is to validate the importance of project management knowledge in managing interior projects with relation to the professional provision that will improve in Interior design industry needs and expectation from the interior designer towards the knowledge and skills of project management. The objective was to investigate the importance level of interior design professional practices on the Interior design's task and duties. The quantitative approach was applied in this research to validate the roles and task of interior design project manager in design process of the project. This analysis will demonstrate the significance of a project manager's project management task in an interior design project.

Keywords: Interior design, interior design project management task and duties, design phase

1. Introduction

Interior design is a relatively new profession. Because of this, it is still frequently confused with other design-oriented fields. Interior design involves a multitude of technical, analytical and creative skills. It also requires a good understanding of architectural elements. It is important to ensure that the roles and tasks of an interior designer are not equated to interior decorators and/or interior architects. While the primary task of the interior designer is often seen as designing the spaces, the task of executing the design and construction is equally important. In other words, professional interior designers must not only be creative in design and provide technical solutions to turn the project into a built interior environment to ensure that the spaces are functional and able to offer enhancement to the quality of life and aesthetically attractive. To create an effective built interior environment, the interior designers must be competent to systematically coordinate the execution of the multitude of activities methodologies within the whole project process. It is important to ensure that the roles and tasks of an interior designer are not equated to interior decorators and/or interior architects.

Because of the profession is relatively new, it is still frequently confused with other design-oriented fields. Interior designers are perceived to have a career objective that essentially boils down to furniture arrangement, upholstery selection and the sale of interior accessories. This perception drastically needs to be redefined by the understanding of the task and role of interior designer as a project manager. National Council of Interior Designers Qualification (NCIDQ) (2001) has stated 12 job scope and roles as a professional interior designer that covers mostly a job of a project manager. While Piotrowski (2013) also stated that the role of an interior designer is also about managing and working with other designers, allied professionals, clients and vendors and about knowing how to structure a contract and prevent legal problems. Other researcher, Guerin and Martin (2010) has conducted three studies on the interior design profession's body of knowledge stated in the updated version of the Professional Interior Design Body of Knowledge (IDBoK) that project management is one of the 14 knowledge area of Professional Practice in IDBoK. Council of Interior Design Association (CIDA) (2006) also clarified that interior designers must understand artistic and technical requirements of a project, interpersonal communication, and management strategies.

However, from the professional practice provision in the interior design work development process did not state project management as an important role and responsibility that an interior designer needs to undertake a project. This is proved by NCIDQ (2003), Neilson and Taylor (2007), Pile (2007), Malaysian Society of Interior Designer (MSID) (2004) and Institut Perekabentuk Dalaman Malaysia (IPDM) (2006) (shown in table 1). Contrasting to that, Pembangunan Sumber Manusia Berhad (PSMB) (2004) underlined the critical skills that are short in supply and the training needed for an interior designer to overcome the shortage of skills. The finding from PSMB (2004) as proposed is to focus more on the important tasks as an interior design project manager. PSMB (2004) proposed that the core competency of interior design project manager includes both the hard and soft skills of management.

Table 1 - The comparison of work development process among the authors

NCIDQ (2003)	Neilson and Taylor (2007)	Pile (2007)	MSID (2004)	IPDM (2006)
Programming	Letter of Agreement (Contract) Problem Statement Research and Programming Writing the program	Project Beginnings Programming	Programming Phase	Research study and planning – schematic design
Schematic design		Concept development	Schematic Design Phase	Concept and design development
Design development	Design Development	Design development	Design Development Phase	
Contract document		Design implementation	Contract Document Phase	Working drawings, specifications and contract documentation
Contract administration			Contract Administration and Implementation Phase	
	Post Occupancy Evaluation	Project supervisor		Inspection supervision and contract administration

2. Literature Review

2.1 Interior Design Process

The process to turn an empty interior into a functionally effective and aesthetically pleasing environment requiresa few tasks. Firstly, the interior designer will develop drawings and documents of the design concepts that will be realized. This sequence is called the design process. A wide variety of design processes were drawn by several organizations and authors. However, at its core, the process remains the same as each project goes through it. The most widely accepted definition is the one from NCIDQ (2003) which is listed as Programming, Schematic Design, Design Development, Contract Document and Contract Administration. Another definition as put forward by Neilson and Taylor (2007) in their book titled Interiors, an introduction: 4th edition stated that the design process is as Letter of Agreement, Problem Statement, Research and Programming, Writing the program, Design Development and Post Occupancy Evaluation.

The interior design process according to Pile (2007) depends on the size of the project and the designer-client relationship from which the steps that are necessary in an interior project is determined. For example, a simple project like a renovation of a single room hardly requires any formal organization of work. In stark contrast to larger interior projects such as a healthcare project that requires a client's approval of design decisions which involves more organization and systematization. In short, Pile stressed that orderly working methods are essential in order to improve business efficacy. There are two professional bodies that represent interior designers in Malaysia. As such, both have different descriptions of an interior designer's services. In order to avoid any unnecessary discomfort, the Malaysian Society of Interior Designers (MSID) (2004) proposed that the design process, in relation of the service scope of an interior designer. Institut Perekabentuk Dalaman Malaysia (IPDM) (2006) also came out with a description of interior design services. The professional services provided by the Interior Design Consultant should consist of two types of services which are the basic services and the additional services. However, since the merging of MSID and IPDM in 2016, there is no stated description of interior design scope of work by MIID as the new professional body that present interior designer in Malaysia.

In conclusion, the work development process of an interior designer is as shown in figure 1. The stages consist of 7 important phases including the handover phase. The activity in each phase is crucial and it is the task of the interior designer to ensure that the actions are taken by a selected individual. Here, the activities will determine the differences between the work of an interior design and an interior decorator. Identification of the work task is important in order to ensure that the perception towards what an interior designer is capable of is not purely artistic and creative. Interior designers must also understand the heavy responsibility they have in managing each part of the project phases that they are tasked with.
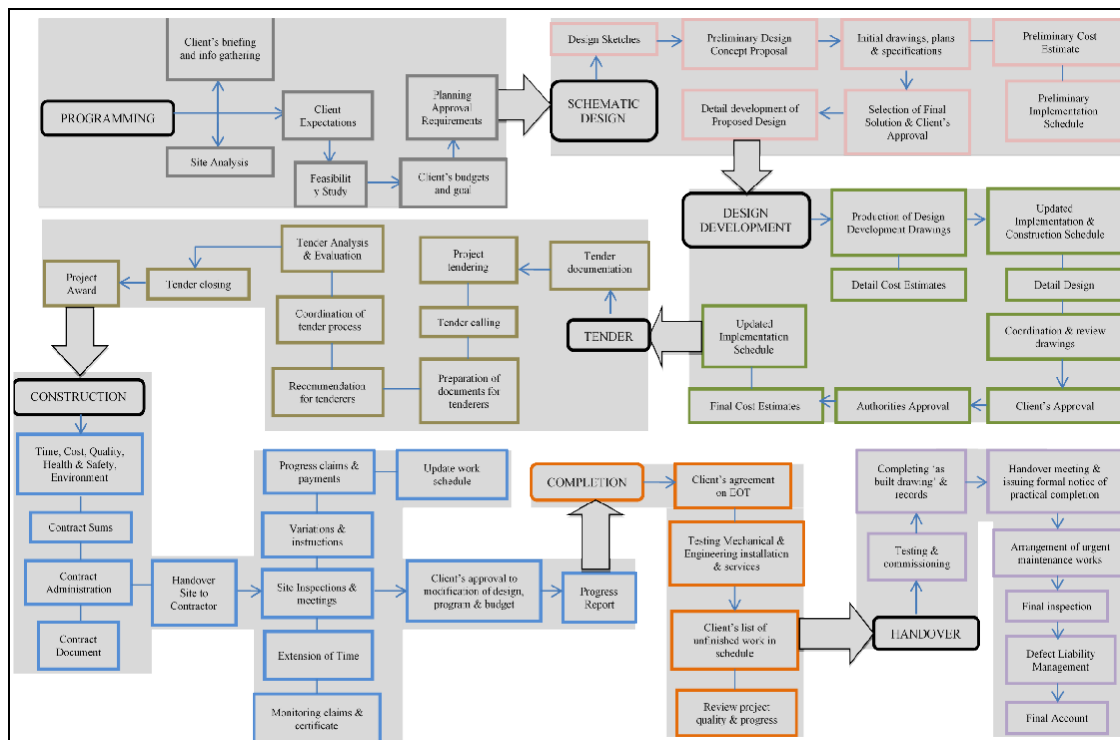

Fig. 1 - The conceptual framework of the professional interior design's task and duties according to the projectlife-cycle

As illustrated from figure 1 above, the scope of work in interior design has tremendously expanded. The task and duties of an interior designer have been drawn in the conceptual framework as shown in figure 1. The framework states that in order to be an interior designer, one must acquire knowledge not only of design, but of project organization and how to organize people. In order to have such a wide skill set, it is prudent to be occupied with related knowledge that can be easily gained during one's academic years or experiences during one's practicum.

As the built environment of the present day has grown in complexity and diversity, the realm of the interior has become a profession in its own right. While an interior designer works alongside other consultants such as architects, engineers and construction managers, in many cases today, projects are handled independently by a new breed of professionals: interior architects. These are creative professionals who not only plan and design public, commercial, recreational, institutional and domestic buildings, but are also qualified and responsible for the management and implementation of such projects.

2.2 Task and Duties as Interior Design Project Manager

The term interior designer refers to someone who takes a professional approach to the internal representation of a building or a room, emphasizing basic planning and functional design that better integrates with decoration. Because of the complexities and uniqueness of each project and setting, the field of interior design often overlaps and supplementsa number of different professional fields (Binggeli, 2007). Recently, Anderson et al. (2007) argues that interior designers can not gain professional status until they show a social obligation to the society, which can only be shown when the capacity to build interior settings that benefit and improve the quality of life is demonstrated.

Every project is unique, there is no project that is identically alike. What really makes an interior design projectrun smoothly purely depends on team members who bring different sets of skills and expertise that enables everyone to bear on amazingly complex problems in a smoothly coordinated way (Franklin, 2000). Project management reaches beyond the design discipline, rallying the architects under an effective leadership from start to finish. The skillsrequired to accomplish this are usually developed through active participation and experience in project delivery the interpersonal desire to learn and improve oneself (AIA, 2005). A client-centred project management approach with a strong focus on client advocacy will always be more successful than project-centred efforts (AIA, 2005). According to Birnberg (1992), all design firms need and require effective project management in order to sustain the lack of project control and supporting systems, a lack of staff time to manage a project, insufficient principal time to run both the firm and projects simultaneously and an inability to market with enough regularity to ensure a steady work load. The project manager is the central figure on a project team and is also the person in an architecture firm who is responsible for managing a team of diverse people and interests alongside balancing design, schedule and budget concerns in order to meet the client's expectations. In some cases, they may also be called project architects or project directors. In any case,they are assumed to be able to take responsibility in to accept certain challenges and to bring certain traits and abilities to their work (Stasiowski and Burstein, 2008).

Similar to interior design, Rogers (2001) in the Interior Design Handbook of Professional Practice stated that design professionals see themselves as good managers that evidently requires them to employ leadership skills, management skills, professional and industry knowledge and practical experience. Table 2 clearly states and identifies the roles and responsibilities of an interior design project manager during the project cycle. The activity of an interior design project manager involves the designing stage to make sure the team achieve the project objectives and the construction stage where the implementation by other parties is confirmed to have been carried out as planned. Besides the responsibility to the design and construction stage, an interior design project manager must also be accountable in monitoring and coordinating all works and tasks by other stakeholders that are involved.

Table 2 - The activity and responsibility of interior design project manager in managing interior projectaccording to the framework of professional interior design in design stage

DESIGN STAGE		
Design Process		
Stages	**Activity**	**Project manager Responsibility**
Programming	Briefing – the meeting with client for preliminary discussionand assessment.	Managing the meeting with clients fordesign briefing
	Information gathering – visiting the site: assess particularnature of project and possible method approach, potential problems and survey requirements.	Supervising on the informationgathering.
	Client expectations – visualize and confirm the prospect of theproject.	Advice the client on the designexpectation.

	Feasibility study - survey site as far as necessary for work stages and carry out design work sufficient to establish feasibility.	Supervising on the feasibility studies
	Client goal and budget – the discussion with client regarding responsibilities, form of engagement, fees and expenses, method of purchasing and contract agreements.	Advice on the client goal and budget
Schematic Design	Preliminary design – the review of client's requirements of the project.	Delegate, monitor and control the preliminary design.
	Concept proposal – the development of outline proposals according to the client's requirements.	Supervise on the concept proposal
	Design sketches – the development of design sketches by the designers visualizing the client's concept.	Supervise and control the design sketches
	Initial plans, drawings, specifications – the development of outline specification and cost plan, programme, integrating services and relationship with building structure.	Monitor the production of initial plans, drawings and specifications.
Design Development	Final design – the agreement of final design	Control in establishing the final design
	Final presentation – the agreement of final presentation	Control in preparing the final presentation
	Project budget- the agreement on the final budget of the project	Control the final budget
	Client approval – the confirmation of final design and changes	Establish client approval
Preparation of Contract	Final construction & working drawings	Delegate, monitor and control the drawings
	Detail specifications – the preparation and confirmation of detail specification used in the project.	Monitor and control the specifications
	Tender process – the agreement of tendering and contract procedure	Monitor the tender process

3. Methodology and Results

Quantitative approach in this study focused on the views and opinions from interior design practitioners with regards to the important level in managing interior project focusing on design process. A set of questionnaire surveys were developed in order to determine the important level of project management knowledge in managing a project. The questionnaire surveys were distributed to various experienced positions in the interior design industry. They were sent by hand and by email with a personalized cover letter and a questionnaire survey as attached. Then, a follow up call was made to the respondents in order to make an appointment to collect the questionnaire surveys. While the questionnaire surveys sent via email were collected via email. This procedure took about 4 months to complete.

The sample population for this study was drawn from one registered professional body in Malaysia that serve interior designers. This list includes architectural firms, interior design firms, project management consultants, academicians, and construction firms. Despite this, only 181 participants are interior designers from 121 interior design firms, as well as interior design academics. Within 4 months, 130 questionnaires were released, with 99 questionnaires received from respondents and only 78 answers completed.

Stratified random sampling was selected to be applied in this research. A concern when using stratified random sample is that the researcher must identify and justify the subgroups. As for this research, the sample population includes Project Directors, Design Directors, Project Managers, Senior Interior Designers, Academician, Main and Interior Contractor, Assistant Architect and Technical Advisor. The academic backgrounds of the selected samples are from Interior Design/Architecture, Architecture and Construction/Project Management. This selection process rendered a wide range of views that investigate the importance of project management in an interior designer's task and duties. Figure 2 shows the flow of the sampling technique conducted.
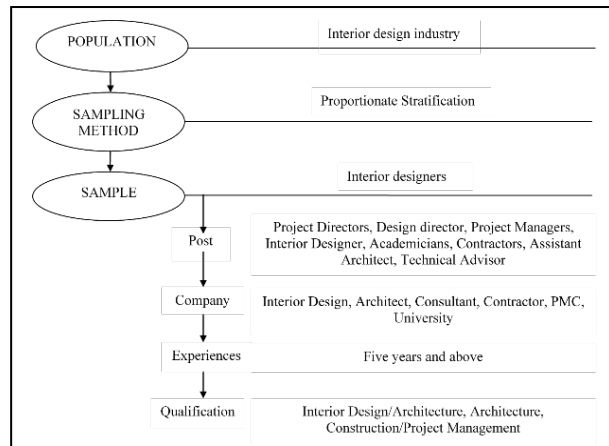
Fig. 2 - Quantitative sampling techniques

For this research's purposes, data measurement scale was mainly relied on the interval rating scale (Table 3). Rating scale was in the form of "not important --- most important". The respondents were required to choose their opinion along the scale (5 points). Scale length was always a debatable issue even though three to seven point scales were commonly applied in a research. However, nominal scale is also used especially on the respondent's background and organization data. The nominal scale was used for exploratory purposes in order to identify the respondent's background.

Table 3 - Example of interval scale

1	Programming	Importance level	
		Not important	> Most important
a.	Briefing	1 2 3 4 5	
b.	Information gathering	1 2 3 4 5	
c.	Client expectations	1 2 3 4 5	
d.	Feasibility study	1 2 3 4 5	
e.	Client goal and budget	1 2 3 4 5	

Content validity can be accomplished in a variety of ways, including carefully defining the study subject and having the questionnaire evaluated by a group of individuals to ascertain if the questionnaire tests what it can calculate (Vogt, 2007, DeVellis, 2003, Netemeyer et al., 2003). The aim of this study is to examine the critical level of the Professional Interior Design role and duties. A comprehensive analysis of the literature found that these aspects were the responsibility of the interior designer in project management. Reliability refers to 'a statistical measure of how reproducible the survey instrument's data are. One type of reliability is internal consistency; it is measured by calculating Cronbach's alpha, which measures the homogeneity of a scale formed of multiple items.

Table 4 - Cronbach's Alpha

CONSTRUCT	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Programming	.841	.839	5
Schematic Design	.867	.868	4
Design Development	.834	.834	4
Preparation of contract	.860	.864	3

Table 4 showed the scores for each construct. The overall cronbach' alpha score fulfilled the requirement of at least 0.7 (Sekaran, 2003). The values of Cronbach's alpha for the nine constructs of this study are 0.841 for Programming, 0.867 for Schematic Design, 0.834 for Design Development, 0.860 for Preparation of Contract. These values highlight the reliability of the constructs in the questionnaire form. In conclusion, the results were consistent as the random error wasavoided.

3.1 Respondent's Background and Organization

For this study, individuals that were involved in the interior design industry from various companies represented the unit of analysis. Respondents of the study were varied and concerned a number of demographic variables such as respondent position, respondent company, working experiences, highest qualification and qualification background. Table 4 below shows the result of respondent's background and organization.

Table 5 - Summary of demographic survey

Respondent's position			Company background			Working experiences			Highest qualification			Qualification background		
Answer option	Response percent	Response count	Answer option	Response percent	Response count	Answer option	Response percent	Response count	Answer option	Response percent	Response count	Answer option	Response percent	Response
Project Director	11.5%	9	ID firm	35.9%	28	5 yrs & above	5.1%	4	**Diploma**	**64.1%**	**50**	ID / IA	79.5%	62
Design Director	1.3%	1	Architect firm	6.4%	5	5-10 yrs	12.8%	10	Degree	26.9%	21	Architecture	0	0
IDPM	25.6%	20	**Consultant firm**	**26.9%**	**21**	10-15 yrs	28.2%	22	Masters	7.7%	6	Construction / PM	19.2%	15
Senior ID	**34.6%**	**27**	Construction company	23.1%	18	**15 yrs & above**	**53.8%**	**42**	Others	1.3%	1			
Others	26.9%	21	Others	7.7%	6									
total		78			78			78			78			78

Drawing from the table above, illustrates the respondents position mostly are senior interior designer (27 respondents) from the interior design consultant firm (21 companies) that holds more than 10 years of experiences (42 respondents) with mostly Diploma holders (50 respondents) in interior design (62 respondents).

3.2 Interior Design Project Management Task and Duties

i. Programming

In Programming, there were five items that had to be measured by the respondents; briefing, information gathering, client expectation, feasibility study and client's goal and budget.
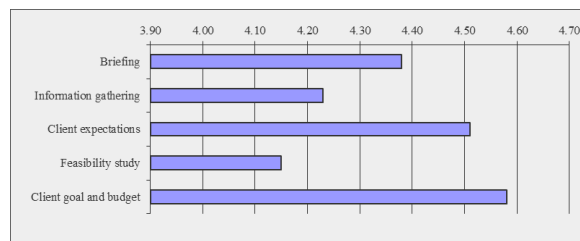

Fig. 3 - Importance level for programming

The results from the figure shows that the goal and budget from the client is the most important item in programming stage with an average rating of 4.58. It is followed by the client's expectation. The respondents measured the feasibility study as less important in this stage.

ii. Schematic Design

Figure 4 shows 4 items in Schematic Design stage that consists of preliminary design, concept proposal, designsketches and initial plans, drawings and specification. To produce initial plans, drawings and specification is the most important item measured by the respondents. With the rating scale of 4.26, proposing a concept is another important item in this stage. However, preliminary design is measured as less important by the respondents.
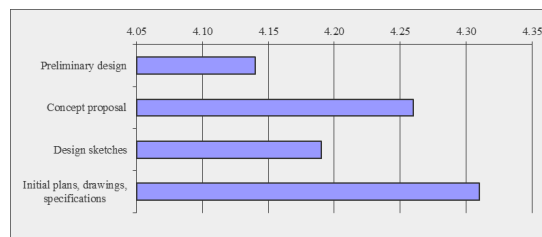

Fig. 4 - Importance level for schematic design

iii. Design Development

There are four items in the Design development stage. After producing an initial concept and drawing plans in the schematic design stage, the agreement of final design from the client must be obtained. It will be followed by the final presentation with the final project budget and lastly, the confirmation of the final design and changes that is achieved from the client.
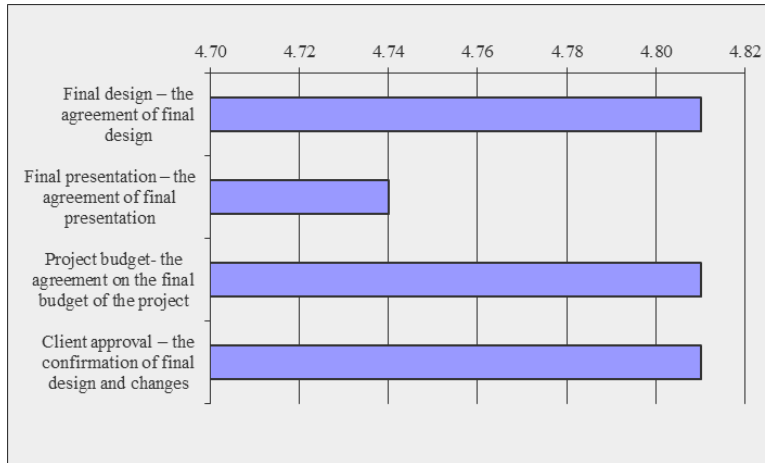

Fig. 5 - Importance level for design development

The result in figure 5 clearly shows that the agreement of the confirmation in final design and final budget fromthe client is equally as important with a scaling rate of 4.81.

iv.   Preparation of Contract

Figure 6 illustrates 3 items in Preparation of contract stage that include final construction and working drawings, detail specification and tender process. The result shows that production of final construction and working drawings as important detail specification.
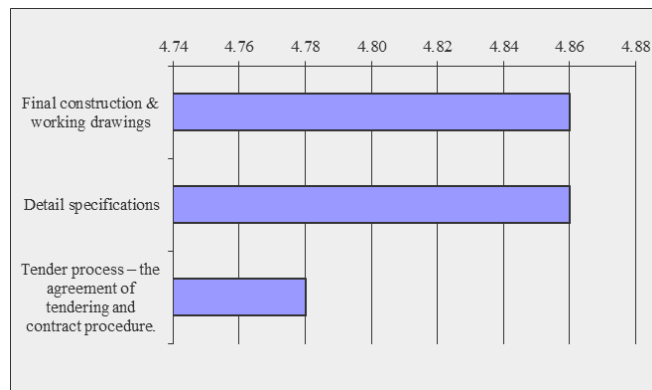

Fig. 6 - Importance level for preparation of contract

4. Analysis and Discussion

The objective was to investigate the important level of interior design professional practice on the Interior Design'stask and duties as spelt out in The Conceptual Framework of the Professional Interior Design's Task and Duties according to the project life-cycle focus on design phase (table 1). The significant level indicated in the analyzed outcome defined the duties and responsibilities of the project manager for certain particular design process activities. It was specifically stated that the interior design project manager's duty is to coordinate the design team's tasks. The Statistical Package for the Social Sciences (SPSS), a computer program, was used in the process of exploring the data from the survey questionnaires. The processes that will enable the analysis and the investigation in order to maintainthe validity and reliability of the approaches were carried out and critically discussed.

The results shown in figure 3 illustrate that the interior design project manager must have a clear goal and budgetof the client in order to meet the client's expectations from the data collected during the client briefing and information gathering. This is very important in providing advice to the client on a design proposal that is consistent with theclient's budget. This stage is crucial to the definition of project scope, concept and time within the budget. As aninterior design project manager, it is important to monitor the client budget in order to

maintain a reasonable project expense, which may occur during the initial stage of client briefing. As shown in figure 4 shows, the interior design project manager must monitor the production of initial plans, drawings and specifications within the design team and ensure that the project team follows the concept of the design sketches and the preliminary design. Monitoring the production of initial drawings at this stage is very important in order to ensure that the proposed drawings are produced in accordance with the client's brief and budget.

The data shown in figure 5 shows that it is important for the interior design project manager to obtain agreement from the client to finalize the design, including any changes to the design according to the client's budget. At this stage, the roles and tasks of the interior design project manager are more concerned with controlling the production of thefinal design and the final presentation as agreed and approved at the earlier design stage. This task is important to avoid any changes that are usually made by the client during the construction stage. As can be seen in the figure 6 diagram, respondents agreed that the generation of detailed design and construction drawings are the most critical stages in this project. Using this table, it is possible to illustrate that the project manager is not only in the process of making final construction drawings, but also coordinating with other departments to do design and specification preparation of the details to ensure that the project runs smoothly.

As extrapolated from the above, it was clear that one of the roles and tasks of the interior designer is the management of interior projects. The interior design project manager exists to assist the project in achieving the objectives and objectives of the project in order to ensure the amicable success of the project. From this perspective, the knowledge and skills of the interior design project manager can be considered to be the most crucial part of the entire interior design puzzle, from design to implementation. In addition, acting as project manager for interior works and working with other stakeholders to demand certain qualities that can ensure that all resources are used correctly.

5. Conclusion

This research study has contributed to improve and expand the project management roles and duties that can be encourage to the development and improvement of the interior design project implementation. It advocates that the belief focusing on design and concept can be expanded to the implementation of the projects in the early stage that more crucial and has to be highlighted. On the other hand, it can lead to the benefit of the interior design career development, their jobs, the project and the company. It also emphasizes on the approaches that can be introduced to improve and expand the knowledge and training process to be more effective among interior designer to meet the industry needs and a better trained interior design project manager. The interior design professionalism was highlighted as well as their involvement in the project role of project management, and it was noted that they made their mark as the main reason for project success in that. However, there is a scarcity of interior design managers and skilled employees in the industry, therefore, the expansion of the interior design industry is hindered. The discussion on project management practices should certainly be followed by more research on how to improve their project management knowledge and skills in practice. The skills and knowledge needed to work in today's ever-changing design-industry include producing project managers who are competent in all of functioning at all times.

Acknowledgement

References

American Institute of Architects, 2005. Retrieved at: www.aia.org (2021)

Anderson, B. G., Honey, P. L., & Dudek, M. T. (2007). Interior designer's social compact: Key to the quest for professional status. Journal of Interior Design, 33(2), v.-xiii.doi: 10.1111/j.1939-1668. 2007.tb 00313.x

Binggeli, C. (2007), Interior Design: A Survey. Wiley Ltd

Birnberg, H. G. (1992). Project Management for Building Designers and Owners. CRC

PressCouncil of Interior Design Association, 2006. Retrieved at www.cida.org (2021)

DeVellis, R. F. (2003). Scale development: Theory and applications, (2nd ed). Newbury Park, CA: Sage Publications

Fink, A. (1995). How to Sample in Surveys. Vol. 6. London: Sage Publications.

Frank A. Stasiowski and David Burstein. (2008). Total Quality Project Management for the Design Firm: How to Improve Quality, Increase Sales, and Reduce Costs. John Wiley and Sons

Guerin, D. A. & Martin, C. S. (2010). The State of the Interior Design Profession, University of Michigan, New York
Malaysian Institute of Interior Designers, (2009). available at www.ipdm.org.my

Malaysian Society of Interior Designers, (2009). available at www.msid.org.my

National Council for Interior Design Qualification, Retrieved at: www.ncidq.org
(2021)

Netemeyer, R.G., Bearden, W.O. & Sharma, S. (2003). Scaling Procedures: Issues and Applications. Sage Publications, Inc.

Nielson K. & David T. (2007). Interiors: An Introduction. Boston: McGraw-

Hill,Pile, J. (2007). Interior Design, Pearson

Piotrowski, C. M. (2013). Professional Practice for Interior Designers, John Wiley & sons, Inc,

PSMB, Core Competency for Interior Designer, (2004). Retrieved at: www.hrdnet.com.my/sme/brain_link

Rogers, K. (2001). cited in Interior Design Handbook of Professional Practice, McGraw Hill

Sekaran, U. (2003). Research method for business: A skill building approach. (4th ed). John Wiley & Sons

Vogt, W. P. (2007). Quantitative research methods for professionals (Custom ed.). NY: Learning Solutions